

To: 我本原木[284720231@qq.com]
From: whitney_boone@nps.gov
Sent: 2017-04-19T13:38:58-04:00
Importance: Normal
Subject: Re: Comment from parkplanning.nps.gov
Received: 2017-04-19T13:39:20-04:00
GMPSourcebook Dec2009ver2.2.pdf

Hi Zhiqiang,

1. I'm not sure what you mean by code for resource assessment and classification. Are you able to provide a little more explanation or an example?
2. The General Management Plan Sourcebook (attached to this email, also available [here](#)) is a good reference document, similar to the Parks Canada guide. One key change since the development of the sourcebook is that many parks are now preparing multiple documents to meet the requirements for a general management plan (those same four requirements I mentioned in an earlier email: 1. the types of management actions required for the preservation of park resources, 2. the types and general intensities of development associated with public enjoyment and use of the park, 3. visitor carrying capacities and implementation commitments, and 4. potential modifications to the external boundaries of the park if any and the reasons for the proposed changes), rather than preparing a single document that discusses all four requirements. Most of the guidance in the General Management Plan Sourcebook is still very relevant, though!

Looking forward to hearing back from you!

Best,
Whitney

On Mon, Apr 17, 2017 at 7:39 AM, 我本原木 <284720231@qq.com> wrote:

Hello Whitney :

Thanks for your reply!

wonderful examples. Two questions:

1. Is there any code for resource assessment and classification ?
2. Is there any "Guide to Management Planning", just like "Parks Canada Guide to Management Planning"?

Best wishes,
Zhiqiang

----- 原始邮件 -----

发件人: "Park Planning, NPS"; <npsparkplanning@nps.gov>;
发送时间: 2017年4月14日(星期五) 晚上11:38
收件人: "我本原木" <284720231@qq.com>;
主题: Re: Comment from parkplanning.nps.gov

Hello Zhiqiang,
Great questions!

Every unit of the national park system is required to have a "foundation document", which is a formal statement of the park's core mission that provides basic guidance for all planning and

management decisions. The foundation document for Yellowstone National Park is a great example; you can find it on [this website](#) or in the attachment.

In addition to the foundation document, a park is required to have planning documents that discuss these 4 requirements:

1. the types of management actions required for the preservation of park resources;
2. the types and general intensities of development (including visitor circulation and transportation patterns, systems, and modes) associated with public enjoyment and use of the park, including general locations, timing of implementation, and anticipated costs;
3. identification of visitor carrying capacities and implementation commitments for all areas of the park; and
4. potential modifications to the external boundaries of the park—if any—and the reasons for the proposed changes.

Some parks develop one plan that discusses all four of the above requirements, while other parks develop a different plan for each requirement. The recent general management plan for the Tule Lake Unit of World War II Valor in the Pacific National Monument can be found on [this website](#)- it is an example of a single plan that discusses all four of the above requirements.

Please let me know if there are any other questions that I can help you with!

Best wishes,
Whitney

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Whitney Boone
Park Planning and Special Studies
National Park Service

On Fri, Apr 14, 2017 at 1:35 AM, 我本原木 <284720231@qq.com> wrote:

Hi Whitney
thank you for your reword.
I have three question:
1.Is there any code for national park planning,is there any assessment standard for nantional park?
2.where can i find it.
3.Can you introduce some park plan completed in recent years.

Kind regards
Zhiqiang

----- 原始邮件 -----

发件人: "Park Planning, NPS";<npsparkplanning@nps.gov>;
发送时间: 2017年4月14日(星期五) 凌晨0:13
收件人: "我本原木" <284720231@qq.com>;
主题: Re: Comment from parkplanning.nps.gov

Hi Zhiqiang,
Thank you for your interest. You have reached the National Park Service's Park Planning and Special Studies office in Washington, DC. General information about the National Park Service's park planning program can be found on our

website: <https://parkplanning.nps.gov/planningProgram.cfm>. Is there a particular planning effort underway that you are interested in learning more about?

Kind regards,
Whitney

Whitney Boone
Park Planning and Special Studies
National Park Service

On Thu, Apr 13, 2017 at 11:40 AM, <WASO-NRPC_EQD_PEPC@nps.gov> wrote:

From Name: ZhiqiangLuo

I'd like to get some information about parkplanning

From Email: 284720231@qq.com

National Park Service
U.S. Department of the Interior



GENERAL MANAGEMENT PLANNING

DYNAMIC SOURCEBOOK

Version 2.2, December 2009

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ABBREVIATIONS AND ACRONYMS

ABPP	American Battlefield Protection Program
ACHP	Advisory Council on Historic Preservation
API	asset priority index
ARIS	Air Resource Information System
ASMIS	Archeological Sites Management Information System
CBA	Choosing by Advantages
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CIP	comprehensive interpretive plan
CLI	Cultural Landscape Inventory
CLIP	Climate Leadership in Parks
CRGIS	Cultural Resources Geographical Information Systems
CRPP	Cultural Resource Preservation Program
CZMA	Coastal Zone Management Act
DAB	Development Advisory Board
DEM	digital elevation model
DO	NPS director's order
DOI	Department of the Interior
DSC	Denver Service Center
EA	environmental assessment
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ERI	Ethnographic Resource Inventory
EQD	Environmental Quality Division (WASO NPS)
ESA	Endangered Species Act
ESF	environmental screening form
FACA	Federal Advisory Committee Act
FCI	facility condition index
FMSS	Facility Management Software System
FOIA	Freedom of Information Act
FONSI	finding of no significant impact
FPI	Federal Preservation Institute
FPO	federal preservation officer
FTE	full- time equivalent (staffing variable)
FWS	U.S. Fish and Wildlife Service
FY	fiscal year
GIS	Geographic Information System
GMP	general management plan
GPRA	Government Performance and Results Act of 1993
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscape Survey
HLI	Historic Landscape Initiative
I&M	inventory and monitoring

ABBREVIATIONS AND ACRONYMS

IDT	interdisciplinary team
LCS	List of Classified Structures
LWCF	Land and Water Conservation Fund
MOA	memorandum of agreement
MOU	memorandum of understanding
NCSHPO	National Conference of State Historic Preservation Officers
NAAQS	national ambient air quality standards
NEPA	National Environmental Policy Act
NHL	national historic landmark
NHP	national historical park
NHPA	National Historic Preservation Act
NL	national lakeshore
NM	national monument
NMFS	National Marine Fisheries Service
NMP	national military park
NSR	national scenic riverway
NOA	notice of availability
NOI	notice of intent
NP	national park
Npre	national preserve
NPS	National Park Service
NR	national reserve
NRA	national recreation area
NRCS	Natural Resources Conservation Service
NRPP	Natural Resource Preservation Program
OMB	Office of Management and Budget
ONPS	National Park Service Operations (base funding)
PA	project agreement
PAC	Program Advisory Committee
PAMP	Park Asset Management Plan
PEPC	Planning, Environment and Public Comment System
PIFS	Project Information Filing System
PIO	Public Information Officer
PL	Public Law
PLG	Planning Leadership Group
PMIS	Project Management Information System
PPFL	Park Planning, Facilities, and Lands
PPSS	Park Planning and Special Studies (WASO)
ROD	record of decision
SHPO	state historic preservation officer
SOF	statement of findings
TCP	traditional cultural property
THPO	tribal historic preservation officer
TIC	Technical Information Center
USC	<i>United States Code</i>
VERP	visitor experience and resource protection
WASO	Washington Office

WHY THE NATIONAL PARK SERVICE PLANS

The National Park Service (NPS) plans for one purpose — to ensure that the decisions it makes will carry out, as effectively and efficiently as possible, its mission:

The National Park Service preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. (*Management Policies 2006*, p. ii)

In carrying out this mandate, NPS managers constantly make difficult decisions concerning

- ways to preserve significant natural and cultural resources for public enjoyment
- competing demands for limited resources
- priorities for using available funds and staff
- differing local and nationwide interests and views of what is most important (See the text box for an example of the types of decisions.)

Planning provides methods and tools for resolving these issues in ways that minimize conflicts and promote mutually beneficial solutions — solutions that articulate how public enjoyment of the parks can be part of a strategy for ensuring that resources are protected unimpaired for future generations.

The National Park Service is subject to a number of legal requirements for planning, all intended to support the best possible decision making for the agency and the public it serves. By law, the National Park Service is required to conduct comprehensive general planning as a guide for more specific projects, to base decisions on adequate environmental information and analysis, and to track progress made toward goals. Together these processes make the National Park Service more effective, more collaborative, and more accountable.

Planning provides a balance between continuity and adaptability in a dynamic decision-making process. The success of the National Park Service will increasingly

Planning — Deciding about Tradeoffs, Priorities, Solutions

Are there parts of the battlefield at Gettysburg where rehabilitation would be preferable to preservation? To what extent should the natural values of the landscape be enhanced? What are the highest priority actions for restoring natural ecosystem functioning in Everglades National Park? How can traffic congestion be reduced at Zion National Park? Should visitors be encouraged or required to use a public transportation system? How can transportation alternatives enhance visitor experience opportunities? What role should the National Park Service play in partnership with the local community to preserve and interpret the history of New Bedford Whaling? What are the desired resource conditions and associated opportunities for visitor experiences at Saguaro National Park, where a 50% increase in use over the past 10 years is causing resource damage and significant conflicts among visitors seeking different types of experiences?

depend upon the abilities of its employees to continuously process new information and use it creatively, often in partnership with others, to resolve complex and changing issues. Within this working environment, planning provides a logical, trackable rationale for decision making by focusing first on why a park was established and what conditions should exist there before delving into details about specific actions. Defining the desired conditions to be achieved and maintained provides a touchstone that allows management teams to constantly adapt their actions to changing situations while staying focused on what is most important about the park.

The planning process ensures that decision makers have adequate information about benefits, environmental (natural, cultural, and socioeconomic) impacts, and costs. Analyzing the park in relation to its surrounding ecosystem, historic setting, community, and a national system of protected areas helps park managers and staffs understand how the park can interrelate with neighbors and others in systems that are ecologically, socially, and economically sustainable. Decisions made within this larger context are more likely to be successful over time. Progressively more site-specific and detailed analysis helps minimize adverse natural, cultural, and socioeconomic impacts and the costs of particular actions.

Good planning helps provide everyone who has a stake in the decisions with an opportunity to be involved in the planning process and to understand the decisions as they are being made. As sites with symbolic value to the American public, national parks are often the focus of intense public interest. Public involvement throughout the planning process provides focused opportunities for park managers and the planning team to interact with the public and to learn about public concerns, expectations, and values. Understanding the values that people hold in relation to park resources and visitor experiences is often the key to success in coming to decisions that can be implemented. Public involvement also provides opportunities for public officials to share information about park purposes and significance, as well as opportunities and constraints regarding the management of park lands and surrounding areas.

Finally, planning helps ensure and document that management decisions are promoting the efficient use of public funds, and that managers are accountable to the public for those decisions. The public and their elected representatives are increasingly concerned about how scarce tax dollars are being spent and what results are being achieved. The ultimate outcome of planning for national parks is an agreement among the National Park Service, its partners, and the public on why each area is managed as part of the national park system, what resource conditions and visitor experiences should exist there, and how those conditions can best be achieved and maintained over time.

THE PURPOSE OF THIS SOURCEBOOK

This *General Management Planning Dynamic Sourcebook* is a companion to Chapter 2 of the *NPS Management Policies 2006* and to the *Park Planning Program Standards* (NPS 2004b). Previously these two documents were combined in *Director's Order (DO) #2: Park Planning*, which is now obsolete. Together, the current policies and standards provide the basic policy requirements for all levels of park planning and decision making, from general management planning to program management planning, strategic planning, and implementation planning.

This sourcebook addresses the development of a park general management plan (GMP) and an accompanying environmental impact statement (EIS) or environmental assessment (EA). The sourcebook contains suggestions about approaches, methods, and tools that planning teams might find useful in conducting general management planning and producing plans that meet the requirements stated in NPS policies and standards. None of the approaches outlined here is mandatory. Planning teams may tailor their approach to meet their specific needs so long as the resulting plan meets the policies and program standards and environmental compliance requirements. However, following these steps will result in a more consistent approach to presenting the information required in GMPs. Additional guidance for conducting other levels of planning will be released as it is produced by the various program managers (e.g., resource stewardship, wilderness management, interpretation, transportation, and facility development).

Different parks will have different needs based on the complexity of their issues, controversy, location, politics, and mission (park size does not always equal complexity). This sourcebook provides multiple examples and links to useful sample templates and references for most sections of a GMP, highlighting information that teams may want to consider. Planning teams will need to screen this material and determine for themselves which examples best meet their needs and which tools will be most helpful. The paths followed to complete different GMPs are generally similar, but the circumstances of each plan are distinct. Each team will have to exercise their best professional judgment about which details and techniques will work best.

This sourcebook is dynamic document. Since the March 2008 version of the sourcebook additional experience has been gained on some of the newer aspects of the updated standards, such as foundation elements, user capacities, and cost estimating. As additional plans are produced, links to additional examples, methods, tools, and pointers will be added. The most current version of the sourcebook will be posted on the internet at <http://planning.nps.gov/GMPSourcebook/index.htm>.

Key changes that have been made in this version of the sourcebook include:

- a discussion of consultation procedures with the Washington Office in the development of GMPs in Chapter 2 (2.4) and appendix A.1
- 1. revisions to the content of project agreements in Chapter 3 (3.5.1)

- revisions to appeals for additional funding in Chapter 3 (3.5.5)
- the addition of a brief discussion of climate change and GMP alternatives and consideration of climate change in analyzing impacts in Chapters 7 (7.2.3) and 10 (10.3.1)
- an expansion of the discussion on cultural resource impacts in Chapter 10 (10.3.1) and appendix I.1
- revisions to the discussion of section 106 of the National Historic Preservation Act in Chapter 10 (10.3.6)
- revisions to the direction on the preparation of the optional final (presentation) plans in Chapter 12 (12.5)
- changes in post- project evaluations and the review forms in Chapter 12 (12.6) and appendix K.1
- updated information on the procedures for NPS *Federal Register* notices in Appendix A.3.a
- addition of helpful ideas and tips for public involvement in GMPs in Appendix D.9
- updates to the individual contacts and web sites listed in Appendix L
- winnowing of the laws and executive orders listed in Appendix M, and new information on finding Internet links to this guidance.

Like the March 2008 version, this version of the sourcebook already contains some information about how general management planning continues to evolve since the approval of the current *Park Planning Program Standards* in 2004 and the updated *NPS Management Policies 2006*.

PART ONE: GENERAL CONSIDERATIONS

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1. OVERVIEW OF GENERAL MANAGEMENT PLANNING

1.1 VALUE OF THE PLANNING PROCESS

Planning teams, the public, park staffs, and NPS managers focus on the content of the written GMP. But the value of the planning process used to develop the plan often outweighs the written document. The value of this process includes:

- strengthening and/or establishing relationships with external stakeholders
- providing an opportunity for park staff from different divisions and/or units to discuss issues and concerns facing the park
- providing an opportunity for a park staff to step back and look at the “big picture” for the park
- providing an opportunity for park managers from area parks to discuss common issues and concerns
- affording everyone who has a stake in decisions affecting a park unit an opportunity to be involved in the planning process and to understand the decisions that are made
- providing focused opportunities for NPS managers and staff to interact with the public and learn about public concerns, expectations, and values
- providing opportunities for NPS managers and staff to raise awareness and educate interested citizens about the park unit’s purpose and significance, as well as opportunities and constraints for the management of the park
- identifying general priorities for addressing the multitude of tasks facing a park
- providing an opportunity to address emerging issues, changing park conditions, or new mandates

The only known way of improving the future is called planning.

—Ashleigh Brilliant

1.2 OVERVIEW OF THE NPS PLANNING FRAMEWORK

The management of the national park system is directed by law, policy, and plans, in that order. Law and policy direct those things that must happen in a park because they have been mandated by Congress or the NPS leadership. Park managers and staffs do not make decisions about law and policy, they simply implement them. Park planning is a decision-making process that sets direction, consistent with law and policy, on how a park’s resources, visitors, and/or facilities will be managed. In some instances, park planning also has the ability to recommend changes to law and policy.

1.2.1 Park Planning Program Standards

The 2004 *Park Planning Program Standards* provide the framework for park planning (NPS 2004b). The standards describe a logical, trackable rationale for decisions

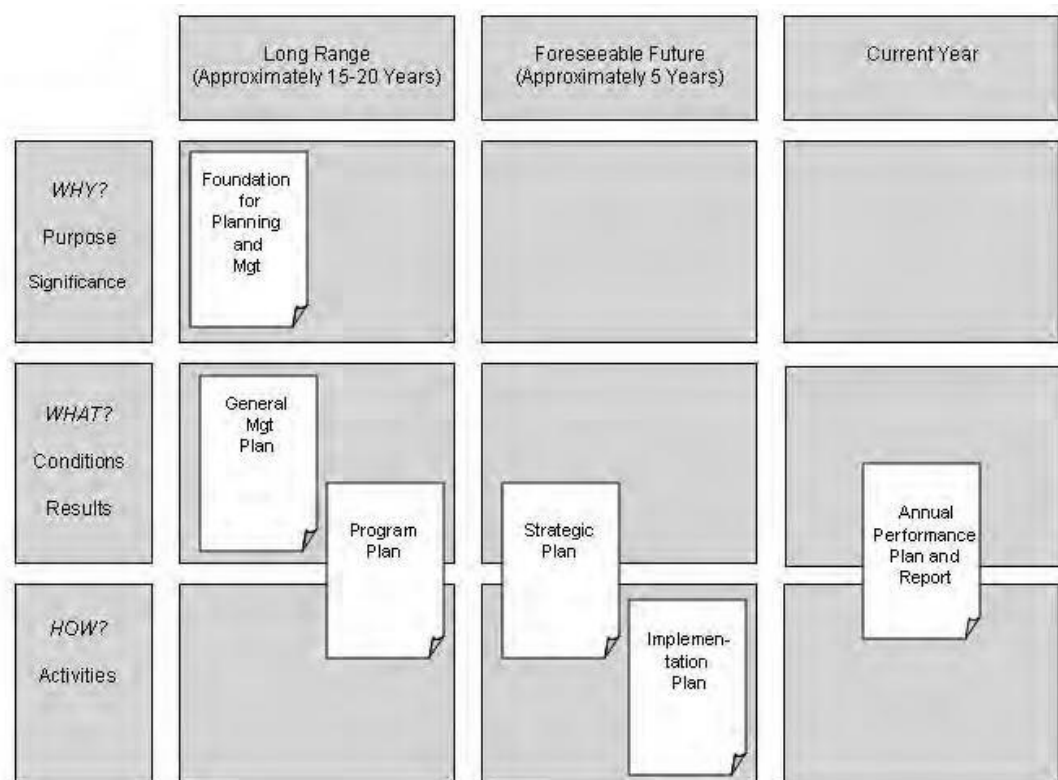
1. OVERVIEW OF GENERAL MANAGEMENT PLANNING

created through several levels of planning that become increasingly detailed and complementary:

- First there is agreement on *why* (law and policy) a park was established and *what* (desired conditions/standards) resource conditions and visitor experiences should exist or be maintained there.
- Then the focus turns to *how* (prioritization/adaptive management strategies) those conditions should be achieved.

The NPS planning framework begins with broad- scale general management planning and proceeds through progressively more specific program, strategic planning, implementation, and annual planning (see Figure 1.1). The foundation statement and the desired condition statements developed during general management planning are the common threads that connects these different planning components. Desired conditions in GMPs provide the feedback loop during subsequent planning that allows park staffs to determine if the goals articulated in the GMP are being met.

FIGURE 1.1: NPS PLANNING FRAMEWORK



1.2.2 Foundation Statement

The foundation statement is the basis for planning and management, and it concentrates on why a park was established. It describes a park's *purpose* and *significance*, focusing future management and planning on what is most important about a park's resources and values. Those park resources and values that are "fundamental" to achieving the park's purpose and significance are identified, along with the legal and policy requirements that mandate a park's basic management responsibilities. The foundation statement may be developed as the first step in a park's general management planning effort or independently, but it does not take the place of a GMP.

1.2.3 General Management Plan

The GMP focuses primarily on *what* resource conditions and visitor experiences should exist — a shared understanding about the kinds of resource conditions and visitor experiences that will best fulfill the purpose of the park. A GMP defines broad direction for resource preservation and visitor use in a park. Thus, general management planning is the broadest level of decision making for parks. As defined in *Park Planning Program Standards*, the purpose of a GMP is to "ensure that park managers and stakeholders share a clearly defined understanding of the resource conditions, opportunities for visitor experiences, and general kinds of management, access, and development that will best achieve the park's purpose and conserve its resources unimpaired for the enjoyment of future generations." Although the *NPS Management Policies 2006* provide the basic management direction for all classes of park resources and values, they allow for management discretion under certain circumstances, such as when there is the need to resolve overlapping mandates or to consider restoration of conditions that no longer exist. General management planning is the appropriate process for making these broad policy level decisions.

General management planning is guided by the requirements of the National Environmental Policy Act (NEPA) and section 106 of the National Historic Preservation Act (NHPA), which direct that decisions must be based on adequate information and analysis and that they must consider a full range of reasonable alternatives. NEPA also requires that decisions be based on scientific information.

1.2.4 Program Management Plans

Program management plans follow the GMP, and they identify and recommend the best strategies for achieving the GMP's desired conditions for resources and visitor experiences for each program area (resource management, visitor use, facility management, etc.). Program management plans serve as the bridge between the qualitative desired condition statements in the GMP and the measurable goals and implementing actions identified in the park's strategic plans and implementation plans. For example, a park resource stewardship strategy translates the qualitative statements of desired conditions for natural and cultural resources in the GMP into measurable or objective indicators that can be monitored over time to assess progress toward achieving the desired conditions. Other examples of program management plans include comprehensive interpretive plans, visitor use plans, and asset management plans.

1.2.5 Strategic Plan

A park's strategic plan tiers off the GMP and subsequent program management plans. It documents decisions about which desired conditions in the GMP and which respective strategies in the program management plan (e.g., resource stewardship strategy) should be the highest park priorities over the next three to five years. Information in a strategic plan is used to compile NPS achievements and to meet requirements of the Government Performance and Results Act of 1993 (GPRA).

1.2.6 Implementation Plans

Implementation plans, which cover various topics, take the prioritized desired conditions and strategies from a park's strategic plan and describe in detail the actions that will be taken over the next several years to help achieve those conditions. Examples of implementation plans include the management of specific species and habitats, wilderness, air tours, off- road vehicles, caves, fire and smoke, fisheries, grazing, paleontological resources, soundscapes, vegetation, minerals/oil and gas, water resources, museum collections, site designs, integrated ecosystem management, integrated pest management, natural resources restoration, and interpretive media.

1.2.7 Annual Performance Plans and Reports

Annual performance plans and reports articulate a park's annual goals for each fiscal year. They also include an *annual work plan* that identifies the specific park activities needed to achieve the annual goals, with details on budget and workload. The *annual performance report* documents a park's progress towards meeting the annual performance goals for the last fiscal year, and if applicable, it analyzes the reasons that the goals were not met. Based on this information, the park staff considers the possible need for additional or revised planning to best achieve the park's goals.

1.3 GENERAL MANAGEMENT PLANNING AS A DECISION-MAKING PROCESS

General management planning can be viewed in a number of ways:

- as a *logical decision- making process*, in which relevant information is gathered and used to make a series of related decisions
- as a *documentation process*, in which decisions and the supporting rationale are written down in a format designed to support understanding
- as a *work process*, in which planning teams move step by step through a series of specific actions designed to support decision making

This sourcebook generally follows the first approach but also incorporates some more specific information about particular steps or particular documentation requirements. For those interested in the organization of a GMP/EIS or EA, Table 1.2 presents a sample outline. To help teams who are looking for information about a particular step in the work process, detailed workflows for GMP/EISs and EAs are described in Section 1.5 and Table 1.3

1.4. General Management Planning Documents

Any approaches to general management planning must remain flexible. Attempts to start at A and end at Z are continually frustrated by the fact that planning is not linear. It is iterative, with the information gained at each step continuously fed back into the products developed during the previous steps.

Table 1.1 shows how information is gathered and used to make decisions about what kinds of resource conditions and visitor experiences should be achieved and maintained in a park — in other words, “what goes in” to the general management planning process and “what comes out.”

TABLE 1.1: ELEMENTS OF THE GENERAL MANAGEMENT PLANNING PROCESS

What's Most Important? Resources, Experiences, Stories
<p><i>GMP Steps:</i></p> <ul style="list-style-type: none"> Identify and/or affirm park purpose, significance, and special mandates. Affirm and/or identify fundamental and other important resources and values. Affirm and/or identify primary interpretive themes.
What's Going on with What's Most Important? Context, Conditions, Trends, Interests, Concerns
<p><i>GMP Steps:</i></p> <ul style="list-style-type: none"> Analyze fundamental and other important resources and values. Identify agency and public interests and concerns.
What Are the Future Possibilities for What's Most Important? Management Alternatives
<p><i>GMP Steps:</i></p> <ul style="list-style-type: none"> Identify alternative concepts. Identify potential management zones. Develop management zoning alternatives. Describe area-specific desired conditions for each alternative.
What Is the Best Long-Term Management Direction for What's Most Important? Selection of the Preferred Set of Desired Resource Conditions, Experiences, and Stories
<p><i>GMP Steps:</i></p> <ul style="list-style-type: none"> Analyze environmental impacts. Analyze value to the public. Review alternatives. Record the decision. Produce the final plan.

1.4 GENERAL MANAGEMENT PLANNING DOCUMENTS

Table 1.2 identifies the sections in a typical table of contents for a GMP/EIS and a GMP/EA. Required NEPA elements such as a cover page, summary, and index are discussed in *Director's Order (DO) #12, Conservation Planning, Environmental Impact Analysis and Decision- Making*, and that guidance is not repeated here (see NPS 2001a, 2001b).

1. OVERVIEW OF GENERAL MANAGEMENT PLANNING

TABLE 1.2: CONTENTS OF A TYPICAL DRAFT GMP/EIS OR EA

Cover Page
Summary
Contents, List of Figures, Tables, and Maps
Abbreviations and Acronyms
Purpose of and Need for the Plan
Introduction <ul style="list-style-type: none"> · Brief Overview of the NPS Planning Process (Why the National Park Service does GMPs) · Purpose of the Plan/EIS · Need for the Plan/EIS · Brief Description of the Park
Foundation for Planning and Management <ul style="list-style-type: none"> · Park Purpose, Significance, and Special Mandates · Identification and Analysis of Fundamental and Other Important Resources and Values · Primary Interpretive Themes · Summary of NPS Legal and Policy Requirements
Scope of the GMP/EIS <ul style="list-style-type: none"> · GMP Issues/Concerns to be Addressed (Including Issues Dismissed from Further Consideration) · Impact Topics (Including Topics Considered and Dismissed) · Relationship to Other Planning Projects · Next Steps and Implementation of the Plan
Alternatives
Introduction <ul style="list-style-type: none"> · Range of Alternatives · Methodology for Selecting the Preferred Alternative · Potential Management Zones Used to Develop the Alternatives
Current Management Alternative (No Action) <ul style="list-style-type: none"> · Concept · Proposed Boundary Adjustments [None] · Management Zoning [if applicable] · Management of Specific Areas · Estimated Cost
Alternative A <ul style="list-style-type: none"> · Concept · Potential Boundary Modifications (if any) · Management Zoning/Desired Conditions <ul style="list-style-type: none"> ◦ Desired Resource Conditions ◦ Desired Visitor Experiences ◦ Appropriate Kinds and Levels of Management, Development, and Access ◦ User Capacity Indicators and Standards · Management of Specific Areas [if needed] · Estimated Cost of the Alternative
Alternative B and Other Alternatives <ul style="list-style-type: none"> · Same as above
Mitigation Measures
Needed Future Studies and Plans
Alternatives and Actions Dismissed from Further Consideration
Alternative Comparison Table
Impact Comparison Table
Identification of the Environmentally Preferred Alternative
Rationale for Selection of the NPS Preferred Alternative
Affected Environment

1.5. General Management Planning as a Work Process

(Boundary of the area that encompasses the analysis of environmental impacts)
Description of Resources
Visitor Uses
Other Topics that are being Analyzed for Impacts
Environmental Consequences
Introduction
· Methodology for Analyzing Impacts, Impact Thresholds, Impairment
· Cumulative Impacts
Current Management Alternative (No Action)
· Impact Topic 1
◦ Analysis of Direct and Indirect Impacts
◦ Analysis of Cumulative Impacts
◦ Conclusion and Impairment Finding
· Impact Topic 2
◦ Same as above
· Adverse Impacts that Cannot Be Avoided
· Relationship between Local Short-Term Uses and Long-Term Productivity
· Irreversible or Irretrievable Commitments of Resources
Alternatives A, B, C
◦ Same as above
Consultation and Coordination
Brief History of Public Involvement
Consultations with Other Agencies and Organizations
Future Compliance Requirements
For FEIS: Public Comments on the Draft GMP/EIS with Responses
· Summary of Written and Oral Comments
· Changes to the Preferred Alternative (if appropriate)
· Responses to Substantive Comments
Public Officials, Agencies, and Organizations Receiving this Plan
List of Preparers
Back Matter
Appendixes
Glossary
References Cited
Index

1.5 GENERAL MANAGEMENT PLANNING AS A WORK PROCESS

Table 1.3 identifies the sequence of key steps that are followed in developing a typical GMP/EIS or GMP/EA. It should be noted that not all steps are shown in these work-flows, in particular, reviews and approvals of various products and steps by parks, regional offices, and WASO. The steps shown here may not necessarily be followed in this order for every GMP.

TABLE 1.3: WORKFLOWS FOR A TYPICAL GMP/EIS AND GMP/EA

Workflow for a Typical GMP/EIS	Workflow for a Typical GMP/EA
1. Project Initiation/Internal Scoping 1.1 Prepare Draft Project Agreement (PA) 1.1.1 Scope Project and Assign Planning Team 1.1.2 Prepare Project Schedule, Workload, and Budget; Identify Roles/Responsibilities 1.1.3 Develop a Public Involvement Strategy 1.1.4 Prepare Project Agreement 1.2 Approval of Project Agreement (Park, Region, WASO; DSC if appropriate)	1. Project Initiation/Internal Scoping 1.1 Prepare Draft Project Agreement (PA) 1.1.1 Scope Project and Assign Planning Team 1.1.2 Prepare Project Schedule, Workload, and Budget; Identify Roles/Responsibilities 1.1.3 Develop a Public Involvement Strategy 1.1.4 Prepare Project Agreement 1.2 Approval of Project Agreement (Park and Region; DSC if appropriate)
2. Public, Agency, and Partnership Scoping / Initiate Data Collection 2.1 Publish Notice of Intent (NOI) in the <i>Federal Register</i> 2.2 Initiate Environmental Compliance Consultation 2.3 Collect and Analyze Visitor Use and Resource Data 2.4 Prepare Foundation Statement 2.4.1 Identify and/or Reconfirm Purpose, Significance, Primary Interpretive Themes, and Fundamental Resources and Values 2.4.2 Acknowledge Special Mandates and Commitments 2.4.3 Acknowledge NPS Laws and Policies 2.4.4 Analyze Fundamental Resources and Values 2.5 Conduct Public, Agency, and Partnership Scoping 2.5.1 Prepare and Distribute Scoping Newsletter 2.5.2 Hold Public Meetings 2.5.3 Review and Analyze Public Comments	2. Public, Agency, and Partnership Scoping / Initiate Data Collection 2.1 Publish Notice of Intent (NOI) in the <i>Federal Register</i> 2.2 Initiate Environmental Compliance Consultation 2.3 Collect and Analyze Visitor Use and Resource Data 2.4 Prepare Foundation Statement 2.4.1 Identify and/or Reconfirm Purpose, Significance, Primary Interpretive Themes, and Fundamental Resources and Values 2.4.2 Acknowledge Special Mandates and Commitments 2.4.3 Acknowledge NPS Laws and Policies 2.4.4 Analyze Fundamental Resources and Values 2.5 Conduct Public, Agency, and Partnership Scoping 2.5.1 Prepare and Distribute Scoping Newsletter 2.5.2 Hold Public Meetings 2.5.3 Review and Analyze Public Comments
Policy waiver not applicable.	3. Obtain Policy Waiver to Convert EIS to EA* 3.1 Publish EIS termination notice in the <i>Federal Register</i> * For simplicity, the policy waiver step is shown after the analysis of public scoping comments. But a policy waiver to prepare an EA can be sought any time in the process after the analysis of public scoping comments.
3. Develop Alternatives 3.1 Develop Preliminary Alternatives 3.1.1 Develop Range of Potential Management Zones 3.1.2 Develop Preliminary Alternative Concepts and Range of Alternatives 3.1.3 Prepare and Distribute Preliminary Alternative Concepts and/or Preliminary Alternatives Newsletter (Optional) 3.1.3.1 Review and Analyze Comments on Preliminary Concepts or Alternatives	4. Develop Alternatives 4.1 Develop Preliminary Alternatives 4.1.1 Develop Range of Potential Management Zones 4.1.2 Develop Preliminary Alternative Concepts and Range of Alternatives 4.1.3 Prepare and Distribute Preliminary Alternative Concepts and/or Preliminary Alternatives Newsletter (Optional) 4.1.3.1 Review and Analyze Comments on Preliminary Concepts or Alternatives

1.6. Integrating GMPs with Wilderness, Wild and Scenic River, and Commercial Visitor Service Documents

Workflow for a Typical GMP/EIS	Workflow for a Typical GMP/EA
3.2 Identify the Preferred Alternative 3.2.1 Further Analyze Alternatives and Describe Impacts 3.2.2 Estimate Costs of the Alternatives - 3.2.3 Select a Preferred Alternative (Choosing by Advantages [CBA])	4.2 Identify the Preferred Alternative 4.2.1 Further Analyze Alternatives and Describe Impacts 4.2.2 Estimate Costs of the Alternatives 4.2.3 Select a Preferred Alternative (CBA)
4. Prepare and Distribute Draft GMP/EIS 4.1 Publish Notices of Availability (NOA) in the <i>Federal Register</i> 4.1.1 National Park Service Publishes NOA for Draft GMP/EIS 4.1.2 Environmental Protection Agency (EPA) Publishes NOA for Draft GMP/EIS 4.2 Public Review of Draft GMP/EIS 4.2.1 Conduct Public Meetings or Hearings 4.2.2 Collect, Analyze, Summarize, and Respond to Substantive Agency and Public Comments	5. Prepare and Distribute Draft GMP/EA 5.1 Public Review of Draft GMP/EA 5.1.1 Conduct Public Meetings (Discretionary) 5.1.2 Collect and Analyze Agency and Public Comments
5. Prepare and Distribute Final GMP/EIS 5.1 Publish NOA in the <i>Federal Register</i> 5.1.1 National Park Service Publishes NOA for FINAL GMP/EIS 5.1.2 EPA Publishes NOA for Final GMP/EIS	Not applicable.
6. Prepare and Distribute the Record of Decision (ROD) 6.1 Sign the ROD by the Regional Director 6.2 Publish the Record of Decision or a Summary in the <i>Federal Register</i> and a Notice in the Local Newspaper of Record	6. Prepare and Distribute Finding of No Significant Impact (FONSI) 6.1 Issue a Notice in the Local Newspaper of Record (Park) 6.2 Publish FONSI or Summary in the <i>Federal Register</i> . (Section 6.3.G of <i>DO #12</i> states that a notice should be published in the <i>Federal Register</i> .)
7. Prepare and Distribute Final Plan (Presentation Plan)	7. Prepare and Distribute Final Plan (Presentation Plan)
8. Close Out Project 8.1 Post-Project Evaluation/Consolidation and Filing of Administrative Record	8. Close Out Project 8.1 Post-Project Evaluation/Consolidation and Filing of Administrative Record
9. Implement GMP	9. Implement GMP

1.6 INTEGRATING GMPs WITH WILDERNESS, WILD AND SCENIC RIVER, AND COMMERCIAL VISITOR SERVICE DOCUMENTS

In certain circumstances a park and planning team may want to combine a GMP with a wilderness study or management plan, and/or with a wild and scenic river eligibility assessment, study or management plan. In other cases commercial visitor services may be proposed in a GMP. In each of these situations the planning team needs to take into account additional legal mandates and NPS *Management Policies*. Early discussion of these issues during internal scoping should give the planning team a good idea about whether to pursue these topics concurrently with the GMP or as separate activities.

1.6.1 Wilderness / Wild and Scenic River Assessments and Studies

The GMP planning process presents an opportunity to analyze whether or not the potential exists in a park for wilderness and/or wild and scenic river designation. These analyses can be either assessments, which examine park lands and waters against certain criteria to determine if they meet the minimum requirements for designation, or formal studies (see below). At a minimum, if lands and waters in a park have not been analyzed for possible designation as wilderness or wild and scenic rivers, an assessment should be conducted within the general management planning process. If potentially eligible resources are found, they should be zoned accordingly in the GMP to protect the wilderness or wild and scenic river values until such time as a formal study is completed and Congress acts on the agency's proposal.

Wilderness Suitability Assessments

For wilderness eligibility the basic inventory process and criteria are found in *Management Policies 2006* (sec. 6.2), and in *DO #41: Wilderness Preservation and Management*, and its accompanying reference manual (NPS 1999a, 1999b). They should be consulted for up-to-date specific guidance. These resources can be found at <http://home.nps.gov/applications/npspolicy/DOrders.cfm>.

Depending on the situation, a GMP may call for a wilderness study, or it may encompass both a suitability assessment and a study. A planning team may also seek a policy waiver from Washington to forego a wilderness suitability assessment and to go directly to a wilderness study.

Wild and Scenic River Eligibility Assessments

Parks containing rivers or river segments listed on the nationwide river inventory maintained by the National Park Service (<http://www.nps.gov/rtca/nri/l>), or that have characteristics that might make them eligible for the national wild and scenic rivers system (<http://www.nps.gov/rtca/nri/eligb.html>) will need to assess the river's potential suitability in accordance with the Wild and Scenic Rivers Act (sec. 5(d)(1)).

GMPs and other plans potentially affecting river resources may not propose actions that could adversely affect the values that qualify a river for the national wild and scenic rivers system. A determination of eligibility does not require a formal study, nor does it require the Park Service to seek designation. If a positive determination of eligibility is found, the agency is required to manage the river so as not to diminish the resources and values that made it eligible in the first place. If a park manager decides to move forward with a formal study, the study can be done in conjunction with a GMP or a GMP amendment, or in a separate NEPA planning process (see *NPS Management Policies 2006*, sec. 2.3.1.9). For more details on wild and scenic rivers, see the *Wild and Scenic Rivers Reference Guide*, prepared by the Interagency Wild and Scenic Rivers Coordinating Council (2004).

Wilderness Studies and Wild and Scenic River Studies

For both wilderness and wild and scenic river designations, a formal study process, involving public consultation, is required to develop a proposal for legislative

designation. Such studies may be done in conjunction with GMPs, taking advantage of the public involvement and environmental compliance that is already occurring. Such concurrent studies do not overly burden a GMP planning effort with additional analysis and can be an economical way to achieve multiple responsibilities. For more guidance on preparing wilderness studies see *NPS Management Policies 2006*, sec. 6.2, and *NPS Reference Manual #41: Wilderness Preservation and Management*. For guidance on wild and scenic rivers studies, see the Interagency Wild and Scenic Rivers Coordinating Council's 1999 technical paper, "The Wild & Scenic Rivers Study Process" (<http://www.rivers.gov/publications/study-process.pdf>).

Parks with combined GMP/wilderness studies include Pictured Rocks NL, Great Sand Dunes NP&Pres, Ozark NSR, Channel Islands NP, Everglades NP, and Big Cypress NP.

Zion NP and Effigy Mounds NM have combined GMPs/wild and scenic river eligibility assessments and suitability studies.

1.6.2 Wilderness / Wild and Scenic River Management Plans

A planning team may decide to combine a GMP with a wild and scenic river management plan or a wilderness stewardship plan. However, the planning team must decide whether the level of detail required in these types of plans is appropriate in a GMP. (Generally, a wilderness stewardship plan is a more detailed implementation plan compared to a GMP.)

Wild and Scenic River Management Plans

Some designated wild and scenic rivers are located within another national park system unit and are not considered separate park units requiring their own GMP. The Wild and Scenic River Act requires that management plans be prepared for these rivers. The GMP can meet the requirements identified in the act, but the GMP should note that it is also serving as the comprehensive management plan for those designated rivers and satisfying the requirements of the Wild and Scenic Rivers Act (sec. 3(d)(1)). The 2004 *Rio Grande Wild and Scenic River GMP/EIS* is an example of a combined GMP/river management plan.

Wilderness Stewardship Plans

Parks with wilderness resources may also want to consider the extent to which the requirements of wilderness stewardship planning could be met during the development of a park GMP. A wilderness stewardship plan done along with the GMP should address zoning and desired conditions and should establish indicators and standards for achieving the desired conditions. These are GMP requirements already and would not result in extra work for the GMP team. Decisions about trails and other public facilities, campfires, user capacity, etc., can be addressed through zoning and desired conditions without mentioning each trail or cabin. For parks with few issues or little wilderness use, this level of wilderness planning may meet most of their needs. This plan would then provide the broad framework for more detailed implementation plans, such as a fire management plan or trail plan. Parks with

complex wilderness issues, such as heavy overnight or day use, commercial pack trips, or climbing use, will likely need a separate wilderness stewardship plan to provide management guidance for these issues. Apostle Islands NL and Fire Island NS have combined GMP/wilderness management plans.

1.6.3 Commercial Visitor Services in GMPs

Commercial visitor services in parks include uses and activities such as but not limited to food services, transportation, lodging, guiding, and rental services. These services are authorized through concession contracts and commercial use authorizations, and they are governed by the National Park Service Concessions Management Improvement Act of 1998 (Title IV of the Omnibus Park Management Act, PL 105- 391). Section 402b of the act states

development of public accommodations, facilities, and services in units of the National Park System shall be limited to those accommodations, facilities, and services that —

- (1) are necessary and appropriate for public use and enjoyment of the unit of the National Park System in which they are located; and
- (2) are consistent to the highest practicable degree with the preservation and conservation of the resources and values of the unit.

Thus, any commercial visitor services proposed in a GMP should meet the above conditions and other provisions of this legal authority and the regulations promulgating this legislation (36 CFR 51). Additional guidance for commercial visitor services relevant to GMPs can be found in the *NPS Management Policies 2006* (sec. 10.2.2 and 10.3) and in *DO #48A: Concession Management* (NPS 2004a).

2. GMP PROGRAM MANAGEMENT

2.1 PROGRAM LEADERSHIP

2.1.1 Park Planning and Special Studies Division (PPSS), Washington Office

The associate director for park planning, facilities, and lands in the Washington office (WASO) is responsible for providing direction and oversight of general management planning activities in the Park Service. The park planning and special studies division program manager, under the associate director, has the leadership role and responsibility for NPS planning. The primary functions of the Washington office that pertain to GMPs are

- establishing policies and coordinating activities related to general management planning for all units of the National Park System, NPS divisions, regional offices, and program centers
- establishing NPS criteria, priorities and funding allocations for GMP, SRS, and Rivers and Trails planning projects
- conducting WASO policy review of plans and study reports submitted by the regional directors and
- developing park planning guidelines and conducting training on planning related subjects in concert with the seven regional planning offices, the Denver Service Center (DSC), and the Planning Leadership Group (PLG) and
- coordinating planning activities with other NPS divisions, parks, regional offices

There is no end to the adventures we can have if only we seek them with our eyes open.

—Jawaharlal Nehru

2.1.2 Planning Leadership Group

The PLG is the national level committee that provides advice on general management planning policies, program standards, and other guidance to the WASO program manager.

The PLG is chaired by the WASO program manager for park planning and special studies and includes

- the associate regional director who oversee planning in each region
- the regional planning program manager for each region
- the DSC manager
- the DSC chief of planning
- representatives from the WASO Division of Natural Resource Stewardship and Science, WASO Cultural Resources, the Harpers Ferry Center (HFC), the Environmental Quality Division (EQD), the National Center for Recreation

2. GMP PROGRAM MANAGEMENT

and Conservation, WASO Transportation Planning representative, and the Strategic Planning Office,

- planner stationed in a park

The PLG usually meets annually to consider issues of national interest to the planning community and to address program policy direction and fiscal and staffing needs. The PLG also conducts business through telephone conference calls and e-mails throughout the year.

2.1.3 Program Advisory Committee

The Planning Program Advisory Committee is a subcommittee of the PLG and is composed of the WASO program manager and the seven associate regional directors with responsibilities for the general management planning program. This subgroup often provides advice to the WASO program manager and biannually makes recommendations about major policy or funding issues as well as updates to the biannual NPS priority list. This is also the group that decides on appeals for requests for more funding for a project.

2.1.4 Regional Offices

The seven regional offices (Northeast, National Capital, Southeast, Midwest, Intermountain, Pacific West, and Alaska) play major roles in the development of GMPs. They are involved with requesting funds for GMP projects within their regions, and in reviews of draft documents for quality. They also produce GMPs. The regional directors are the signature authorities for the GMP/NEPA documents.

2.1.5 Denver Service Center

The DSC Planning Division is significantly involved in the development of GMPs. Its primary role is in the production of GMPs, as requested by the regional offices. It also provides technical assistance to parks and regions that are preparing GMPs, and assists the Washington office in preparing guidance, such as this sourcebook, and in performing other program support tasks as needed.

2.1.6 Office Roles and Responsibilities

As noted above, the key offices that are primarily involved with GMPs are the parks, regional offices, the Washington office, and frequently the Denver Service Center. The roles and responsibilities of the key offices involved in a GMP are identified in the project agreement and may vary slightly depending on the GMP. The primary roles are defined in Table 2.1.

TABLE 2.1: OFFICE ROLES AND RESPONSIBILITIES IN PREPARING A GMP

Park Role	Region Role	WASO Role	DSC Role (if applicable)
	Request funds to prepare a plan	Establish GMP policy and guidance	Provide program support to WASO Planning/

2.2. Program Guidance

Park Role	Region Role	WASO Role	DSC Role (if applicable)
Initiate request to prepare a plan.	Identify parks in need of plans.	Prioritize, coordinate, and distribute funds for GMPs.	
Assemble resource, visitor use, and other data prior to starting GMP.	Conduct planning or contracts with DSC and/or external contractors.	Provide and coordinate WASO policy review.	
Assign staff to serve as team members and subject matter experts.	Potentially assign staff to serve as team members and subject matter experts.		Provide project manager and other subject matter experts as appropriate; provide graphic and editing assistance.
	Provide quality control and quality assurance.		May provide technical assistance to the park, the region, and their partners.
Set direction for the GMP.	Set direction for the GMP.	Set direction for the GMP.	Assist in setting direction for the GMP, but primarily assume responsibility for quality, schedule, and cost.
	Prepare selected GMPs or oversee contractors.		Prepare GMPs requested by regions.
Host public involvement; lead interactions with communities and partners;	Advise and assist with public involvement.	Communicate systemwide public involvement processes and activities with external parties.	Assist park staff in public involvement.
Review draft GMP.	Monitor and review GMP for policy consistency and quality control.	Review draft GMP documents, including project agreements, for policy consistency.	Review draft GMPs for quality control.
Recommend (by superintendent) GMP approval to the regional director.	Approve (by regional director) the GMP.	Provide clearance for printing public documents.	
Implement the approved GMP.	Promote and monitor implementation of approved GMP.		

Other offices that may be involved in the development of a GMP or a portion include the Natural Resource Program Center, WASO Cultural Resource Program Office, Harpers Ferry Center, and the National Wilderness and Recreation Program Office, Commercial Services Planning, and Transportation Planning, among others.

2.2 PROGRAM GUIDANCE

The Washington Office has prepared consultation and coordination guidance for GMP project agreements, *Federal Register* notices, steps for posting a planning document for WASO review in PEPC, and WASO procedures for printing public draft and final GMPs. This guidance is included in Appendix A.

2.3 PROGRAM FUNDING

2.3.1 Overview

The National Park Service receives a specific appropriation by Congress as part of the Construction account to fund the preparation of GMPs for parks and to prepare GMPs or similar comprehensive plans for other areas, such as national trails, when directed by Congress. In FY 2006 the appropriation for general management planning was \$7.2 million. As part of the construction program, GMP funds are “no year” funds, which means they carry over if not obligated. However, if all the funds allotted to a specific project for a specific year are not obligated in that year, the unobligated balances are returned to the program for reallocation to individual projects in future years.

GMP funds are “project” funds and, consistent with NPS policies regarding the use of all project funds, are not available to support salaries of permanent employees outside the Denver Service Center or Harpers Ferry Center. Generally, GMP funds are used to assist a park staff in its general management planning process by enlisting experienced planners (from DSC, the regional office, or a private contractor) to be responsible for most of the plan production elements, including NEPA document development. Park managers and staff are expected to contribute time and effort to the GMP process as part of their normal responsibilities, especially related to leading or participating in civic engagement and public involvement activities.

The GMP program operates primarily on the basis of a NPS priority list (described in greater detail, below). Projects compete for a place on the NPS list by submitting project statements through the Project Management Information System (PMIS) in accordance with the schedule for the Servicewide Combined Call.

2.3.2 GMP Servicewide Priority List

The GMP Servicewide Priority List is developed for a five- year time frame. Projects are evaluated and prioritized by a panel representing each region and program area in the PLG, using the “Choosing by Advantages” (CBA) methodology. Five factors are used to evaluate the advantages of the projects:

- need for fundamental direction, or change in direction, for management of the park
- specific resource management issues
- specific visitor use issues
- specific park operational issues
- other advantages to the National Park Service (e.g., projects that will be a prototype for other NPS plans illustrating creativity and innovation, potential for the project to address issues in several NPS units that are geographically or thematically linked)

2.4. Consultation with the Washington Office in the Development of GMPs

The CBA process produces a list in order of the advantage/cost ratio for each project. Regional priorities are not part of the system for determining the Servicewide Priority List.

The priority list is usually divided into three bands of small, medium, and large projects so that a mix of different types of parks can be served. Although the list provides the basis for setting priorities, decisions about the sequencing of projects allow for consideration of other factors, such as readiness of park staff, availability of data, coordination with other agencies, and local interests. This means that in any year the top 5 or 10 projects in each band might be eligible for funding, and that project 6 might proceed before project 4. However, project 20 would not be allowed to proceed before the higher priority jobs had an opportunity to begin.

2.4 CONSULTATION WITH THE WASHINGTON OFFICE IN THE DEVELOPMENT OF GMPs

Appendix A- 1 describes the Division of Park Planning and Special Studies procedures for consultations on GMPs. As the appendix and table 2- 1 note, the primary purpose of consultation with the Washington Office is to ensure NPS senior program managers and leaders agree with major policy decisions being proposed in plans, to assure leadership support for the plans, and to assure the plans are consistent with Servicewide policies. To this end, planning teams are encouraged to regularly consult with the Division of Park Planning and Special Studies at key points in the planning process, including the development of project agreements, preliminary alternatives, and the draft and final public documents. These consultations can help avoid potential stumbling blocks and delays, identify the need for briefings of officials, and facilitate required reviews and approvals.

It is recommended that planning teams include the program manager and analysts in the Division of Park Planning and Special Studies on project mailing lists. This will help ensure that the Washington Office stays abreast of ongoing work on GMPs.

2. GMP PROGRAM MANAGEMENT

Notes:

3. PROJECT INITIATION

3.1 DETERMINING THE NEED FOR A GMP

The National Parks and Recreation Act (16 USC 1a- 7) directs that GMPs “shall be prepared and revised in a timely manner.” Based on the experience of the National Park Service, other land managing agencies, and the private sector, such general plans are usually expected to have a useful life of 15–20 years. However, circumstances within particular parks may change more rapidly or more slowly, and the 15- to 20- year timeframe is an estimate of what constitutes a “timely manner” for making plan revisions. It is used in the definition of “currency” with regard to goals under the Government Performance and Results Act (GPRA).

For the purposes of the NPS park planning program, a GMP is considered current if it provides fundamental direction for a park upon which management decisions can be made, and it meets the requirements of the National Park and Recreation Act of 1978 (PL 95- 625).

3.1.1 Factors to Consider in Determining Need

In 1998 the National Park Service adopted park planning policies and standards that incorporated new concepts about how general planning could best serve the parks. The new policies and standards called for GMPs to be reoriented to focus less on specific developments and other activities and more on broad direction about the kinds of resource conditions and visitor experiences to be achieved and maintained in the parks. The primary reasons for changing the overall approach to general management planning were

Sometimes the questions are complicated and the answers are simple.

—Theodore Geisel (Dr. Seuss)

- Experience showed that previous plans, which focused on specific problems, facilities, and management actions, often became obsolete before they were implemented.
- Managers needed agreement within the agency and with the public about long- term direction (that would not become obsolete) to support consistent, defensible decisions.
- It was difficult to get stakeholders to consider the park holistically and over a long term when immediate problems and fixes were being debated.

The GMPs prepared under the new policies and standards are considerably different from many of the plans prepared under the previous policies. Most of the plans adopted prior to 1998 do not meet the current program standards. Although some of these plans may provide adequate guidance for the park over the next few years, the majority of national park system units have plans that are substantially out of date and are not likely to be adequate in providing direction for contemporary issues.

3. PROJECT INITIATION

Since the adoption of *DO #2* in 1998, and its subsequent incorporation into the 2004 *Park Planning Program Standards* and the *NPS Management Policies 2006*, the expectations of what should be included in GMPs have expanded to include

- thoughtful analysis of what resources and values are “fundamental” to a park’s purpose and significance
- rigorous analysis of potential for impairments
- more refined guidance on user capacity
- more detailed analysis of the costs to maintain the park’s infrastructure, and attention to departmental emphasis on asset management

Park managers and staffs who have not formally addressed these basic considerations will need to do so, usually most effectively and efficiently through a GMP process. Other compelling reasons for developing new plans include substantial changes in the amount and type of visitation, new research or scholarship about what is most important in the park, changes in adjacent land uses, opportunities for partnerships, and interest in transit systems to address the impacts of increased visitation. Many parks report that a new GMP is needed to provide a forum for consultation with a wide range of people, including park neighbors, local officials, Indian tribes, and other agencies.

3.1.2 Considering the Costs of a GMP

The time and effort required to update or develop a new GMP may vary greatly, depending on the complexity of unresolved issues, the potential for controversy, and other factors. The following are primary factors that affect the cost and efficiency of producing a GMP:

- complexity of unresolved issues
- the potential for controversy
- appropriate level of NEPA compliance
- the nature and extent of the public involvement strategy
- the lack of data on the location or condition of park resources, visitor use, or other key information

In addition to these factors, the foundation statement appears to have the potential to affect the cost and efficiency of producing a GMP.

3.2 AMENDING OR REPLACING AN EXISTING GMP

GMPs are intended to provide direction for 15–20 years. The *NPS Management Policies 2006* state that GMP reviews may be needed every 10 to 15 years, but may be needed sooner if conditions change significantly (sec. 2.3.1.12). Conditions inside and outside parks are constantly changing — they may be changing faster than expected, or unexpected changes may be occurring, or changes that were anticipated may not be occurring. Planning standards may also change. Even in parks with strong traditions and well- established patterns of use and development, resources may be

3.2. Amending or Replacing an Existing GMP

threatened, sites may become crowded, visitation patterns might change, or the park's facilities may require extensive rehabilitation or maintenance. As a result, a GMP will become outdated.

As described in NPS policy interpreting the Government Performance and Results Act, a GMP is defined as current if it is 20 years old or less (based on the year when the record of decision for an EIS or finding of no significant impact for an EA is signed), and it satisfies the following statutory requirements mandated in the 1978 National Parks and Recreation Act:

- effective measures for the preservation of the area's resources
- appropriate indications of the types and general intensities of development (including visitor circulation and transportation patterns), along with locations, timing, and anticipated costs
- identification of visitor carrying capacities
- indications of potential modifications to the external boundaries of the unit

(These factors are also discussed in "Chapter 4. Legal Requirements for GMPs.")

The *Park Planning Program Standards* allow for amending an existing GMP, rather than undertaking a new GMP, to address a particular location, such as a new addition to the park, or a particular issue that might require changing some of the desired conditions in the GMP. The standards leave the decision to amend a plan, rather than develop a new plan, to the discretion of the superintendent and the regional director. However, if the existing GMP is not substantially current as defined above, the GMP should be replaced rather than amended.

Existing GMPs fall into one of four categories with regard to determining the need for an amendment or replacement:

- The current GMP remains relevant for a park (e.g., management zones and desired conditions are still relevant). In such a case the GMP would continue to be reviewed approximately every five years to ensure it remains valid.
- The current GMP does not meet the legal requirements of the National Parks and Recreation Act. In such a case the plan should be replaced rather than amended.
- The current GMP meets legal requirements but existing or anticipated issues facing a park require the preparation of a new GMP.
- One or more elements of a current GMP need to be added or changed, but all other aspects of the approved plan remain valid. In this case a plan amendment is warranted.

If a major change is needed that would have the potential to result in new or controversial actions or impacts that have not been analyzed, then a formal amendment or GMP replacement should be prepared. Examples of circumstances that might trigger a major change in a GMP include

- a boundary adjustment

3. PROJECT INITIATION

- a change in adjacent land use that requires a major change in the management of park resources or visitor use
- a change in regional recreational opportunities that could significantly affect the park's resource management and visitor use
- a need for direction on how to address new types of visitor use or access, such as large group camping, river rafting, or backcountry access
- new conflicts between different types of visitor use
- new discoveries or scientific findings not considered in the original plan
- rezoning a large area, or significantly changing a management zone description due to a major change in resource conditions, use patterns or levels, or policy
- a significant change in a standard for an existing user capacity indicator that would change the management intent for an area.

In considering whether or not to prepare an amendment or replace a GMP, it is worth noting the advantages of undertaking a comprehensive GMP:

- Decision makers consider cumulative, long- term environmental impacts and costs, helping them avoid the creation or exacerbation of new problems as they solve old ones.
- Stakeholders participate in a single planning process, where they can share interests and concerns about numerous interrelated issues. Decisions made in this context are more likely to be broadly understood and supported over time.
- Implementation planning can tier off general planning for greater efficiency and cost- savings over the long run.

Prior to pursuing the implementation planning efforts listed below, first consider completing a GMP amendment or a GMP replacement to provide general direction:

- a comprehensive interpretive plan that suggests a change in visitor circulation
- a resource management/stewardship strategy that identifies a threatened or endangered species that might require seasonal closures in areas not previously considered to be especially sensitive
- a wilderness stewardship plan
- a cultural landscape report that suggests a change in treatments for a specific area
- a land protection plan that identifies parcels expected to remain in private ownership when the GMP assumed they would be acquired by the National Park Service
- a commercial services plan

Some of the advantages of amending, rather than replacing, an existing plan could be

- lower cost than writing a new GMP
- less elapsed time, and less commitment of park staff

3.2. Amending or Replacing an Existing GMP

- more concentrated focus on a few specific issues and concerns

Some of the risks of pursuing a plan amendment, in lieu of writing a new GMP could include

- a “piecemeal” decision- making process, which can overlook cumulative effects
- the potential to solve one problem but create another one
- public objection or fatigue with multiple planning processes if additional amendments seem likely
- greater long- term costs for multiple projects and compliance documentation if additional amendments seem likely

If the decision is made to amend an existing GMP, two types of amendments may be considered: (1) minor updates or “fine tuning” for small, non- controversial changes, and (2) major changes. The question of whether or not a change is minor or major is a judgment call of the superintendent and regional director, who should base their decisions on the magnitude of the change and the potential for environmental effects and controversy.

Minor changes to a GMP may include a slight geographic change where a zone boundary is located, or small changes in an area- specific desired condition that do not change the intent of the original plan. To stress again, these are minor changes that do not change the direction and intent of the existing GMP. Such minor updates should be documented in a memo to the file, provided that the impacts have been addressed in the previous GMP/NEPA document. If the impacts have not been analyzed, the updates should be evaluated in an environmental screening form to determine the appropriate level of NEPA compliance, and communicated to the public as appropriate.

Following is an example of the rationale for preparing a GMP amendment because of a change in adjacent land use and recreational opportunities (from the project’s PMIS Statement):

The State of Idaho Department of Parks and Recreation has successfully filed a Recreation and Public Purposes Act (RP&P) request to utilize adjacent BLM lands for the purposes of developing a campground to serve visitors to the City of Rocks National Reserve. This new development, which is in the final design phase, will eliminate the need to develop a similar facility within the reserve. It is likely that only backcountry campsites will be needed within the reserve to complement the visitor experience. This issue will be examined by a GMP amendment. The location of trailheads, picnic facilities, comfort stations and other items will also be addressed, as will site issues and scope of the project surrounding the location of the proposed park visitor center, which now has the opportunity to serve the new Castle Rocks State Park as well.

Examples of recent GMP amendments that have been done or are in process at the time of this writing include the *Lake Mead NRA GMP Amendment / EA* and the *Great Smoky Mountains NP Elkmont Historic District GMP Amendment / EIS*.

3.3 DETERMINING READINESS TO UNDERTAKE A GMP

NPS *Management Policies 2006* require that park planning be based on scientific, technical and scholarly analysis. A critical element in developing a successful GMP is having a sufficient foundation statement and background studies and information necessary to inform the planning process. Gathering and synthesizing adequate data before starting the GMP helps develop the foundation statement and feasible management alternatives, as well as providing the necessary detail for well-documented descriptions of the affected environment and environmental impacts. Having sufficient pre- GMP studies limits the potential for delays in the GMP schedule when the need for critical information is “discovered” well after the process has begun. The *Park Planning Program Standards* suggest that studies begin up to five years before starting a GMP if a park does not have a well- established program of data gathering and analysis. Many parks may have significant amounts of raw data available, but often they have not been analyzed or synthesized for use in a planning framework. Having necessary and sufficient information is gaining more recognition as influencing the readiness for a GMP, and the intention is to place more weight on this factor in the NPS prioritization process for GMPs.

Typical information gathered before the GMP begins may include threatened and endangered plant and animal inventories, water quality studies, wetlands and vegetative cover mapping, historic resource studies, cultural landscape inventories, historic structures reports, archeology and ethnography overviews and assessments, and other relevant natural and cultural resources information. The types of studies to be undertaken should be tailored to the park’s planning needs to fill gaps and to update information that is out of date (see “Appendix L: Planning Data Needs and Sources”). Also some regional offices maintain lists of studies needed to ensure that adequate information is available to support general management planning.

3.4 REQUESTING AND RECEIVING GMP PROJECT FUNDS

3.4.1 PMIS Statement

Parks in need of an initial GMP, a new GMP, or an amended GMP enter a project statement into the Project Management Information System (PMIS) as part of the annual servicewide comprehensive call. These nomination forms ask for descriptions of the major resource management, visitor use, transportation, and operational issues the park is facing and how a GMP might help resolve those issues. This information is then used to assess and rank GMP projects that are competing for NPS program funds.

The most important consideration in writing a good project statement is to explain the advantages of developing a GMP and what it will accomplish with respect to specific management problems. For example, a statement that the park is being affected by adjacent residential subdivisions (a problem) is not as useful as a statement that explains how developing GMP will help resolve this problem — by providing direction for identifying and managing the impacts of local recreational use on the park’s historic scene. Similarly, a statement that the park has just discovered an endangered species is not as useful as a statement that elaborates on how

developing a GMP will provide direction for the necessary adjustments in visitor use or administrative practices that might conflict with protection of that species. Park staffs are encouraged to consult with their regional planning chiefs prior to preparing a PMIS statement to find good examples and to involve them in developing a well-written PMIS statement.

Project statements may be entered in the annual call, but the priority list is usually formulated or updated every few years, looking five years ahead.

Projects that would amend a current GMP are eligible to compete for funding following the same procedures that apply to a new plan. However, several other sources of funding might be more appropriate for a GMP amendment (or compilation of past amendments). These include funds distributed by WASO PPSS as regionally directed funds (formerly referred to as discretionary) and a wide range of programs that might support planning work to address a specific issue. For example, if a GMP is being amended to address a specific construction project, management of an endangered species, commercial service issue, or cultural landscape treatment, funds from the construction, natural resources, concessions, or cultural resources programs might be available to support these types of planning efforts.

3.4.2 Evaluation of Factors Contributing to Readiness

Once a project is ranked on the Servicewide Priority List, an estimate can be made of when funds might be available to begin work on the GMP. However, the decision to proceed requires an evaluation of several factors that contribute to “readiness.” These include

- availability of current and useful data
- outlook for continued tenure of current park leadership and commitment to participate in a multiyear planning process
- status of the relationship between the park and interested publics
- willingness of park neighbors, partners, and interested parties to proceed
- coordination with other planning processes of states, local governments, or other agencies
- other “political” considerations of timing to address potentially controversial issues

Two examples of PMIS statements, one for the *Petrified Forest NP GMP* and one for the *Ozark NSR GMP*, are included in Appendix B.1.

3.4.3 Initial and Annual Funding Allocations

Each year regions are asked to submit to the WASO program manager estimates for new and ongoing GMP planning needs in the coming year. The call for estimates normally is sent to the regions via e-mail in mid-August, with replies due in mid-September. In consultation with the regional program managers, the WASO program manager identifies what adjustments are needed to balance the estimates with the funds that are expected to be available.

Twice a year regional program managers are asked to review the status of their projects and to identify any funding adjustments that might be needed to reflect delays (or acceleration) in progress. Adjustments in allocations to individual projects must be approved by the WASO program manager through the WASO budget office.

Annual requests for GMP project funds are the responsibility of the regional offices. For those projects being led by DSC, DSC coordinates with the regional offices to identify the project costs to be included in the regions' funding requests. Although GMP project funds are transferred directly to DSC for most GMP projects assigned to the center, the DSC role is to provide services to the regions as part of the regions' programs. Therefore, the regions have the ultimate responsibility for determining funding needs and to request funds for GMP projects in their regions from the WASO Park Planning and Special Studies Division.

3.5 PROJECT AGREEMENTS

The project agreement (PA) is the comprehensive strategy for the project that explicitly identifies why, what, who, when, how, and for how much. The purpose of the project agreement is to get all the principal parties involved in the project so as to align their expectations and to operate from the same set of assumptions about what the task is and how it will be accomplished. The agreement includes the scope of the project, major issues, outcomes, roles and responsibilities, schedule, and budget.

Project agreements are typically prepared by the project manager in consultation with the park, region, and planning team using the PMIS project description as a starting point (see sec. 3.4.1 above). Internal scoping, including discussions, meetings, site visits, and data gathering, is conducted to determine the scope, staffing, budget, and schedule for the project. Official scoping under NEPA does not begin until the Notice of Intent (NOI) is published in the *Federal Register*; however, informal scoping may commence months before that point.

General management planning includes two distinct phases: (1) developing the foundation statement, and (2) developing the rest of the GMP. If the park is ready to plan (see sec. 3.3 above), then a single PA is written to cover both phases of the GMP planning project. If there will likely be a few years' gap between the foundation statement and the rest of the GMP, a relatively simple PA is suggested for the stand-alone foundation statement; another PA will then be prepared when the park and planning team are prepared to complete the rest of the GMP. The following guidance is for a PA for a complete GMP, including a foundation statement.

The standards for PAs are included in the *Park Planning Program Standards* and are not repeated here. This sourcebook provides additional discussion about what is typically included in each section of the project agreement.

3.5.1 Content of a Typical Project Agreement

Cover Page (sometimes called Title and Signature Page)

The cover page of the project agreement clearly identifies

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- the project title that best describes the product or service being provided
- PMIS number
- the complete name of the park and other location information, such as state and NPS region
- the month and year the agreement was prepared
- the titles and signature lines and dates for all parties who will sign the agreement
- title and signature lines for formal cooperating agencies (if applicable)

The project agreement is an internal agency document. Including major partners and stakeholders (even legislated ones) as signatories to the PA is not recommended. Where the PA includes major contributions from stakeholders or partners, these should be summarized in the PA, but a separate memorandum of understanding is recommended as the proper tool to address their contributions specifically unless they are financially contributing to the project.

The signature page should be set up as follows. Electronic signatures are required.

APPROVED

Regional Director Date

AGREED

Superintendent Date

RECOMMENDED

Chief, Park Planning and Special Studies Date

RECOMMENDED

Chief of Planning, (Denver Service Center or Region) Date

Introduction

A brief introduction (one or two paragraphs) explains why the agreement is important, generally what it covers, and how it can be used to help ensure that the planning effort is effective and efficient. (See Appendix B.2.a for an example of an introduction statement.)

Project Purpose and Scope

This section identifies the product to be produced (e.g., a GMP for Big Trees National Park) and addresses the scope of the effort (e.g., it may be a parkwide plan update or it may be an amendment that deals only with one issue). This section also identifies the type of accompanying environmental document (e.g., EIS), and any additional major products (e.g., wilderness study) to be included in the project.

The initial statement on the need for a GMP, as expressed in the PMIS statement, should be included in the project scope (e.g., new issues have arisen since the existing GMP, Congress has expanded boundaries, the existing plan is more than 20 years old and no longer addresses the current issues).

Information about the park can be included in this section.

Primary Issues and Opportunities

Central to developing a meaningful and useful plan is the rigorous consideration of issues. This section describes the primary issues and opportunities that are known when the project starts. The information in this section should be sufficient for the involved parties to understand and agree on the need for the project. Known areas of potential controversy should be identified.

The current understanding of planning issues to be addressed in the plan should be provided here. Issues that drove the need for the plan, as noted above, are expressed in the PMIS statement but this should be considered only as one source of input into the identification of planning issues. The development of the foundation statement, and internal and external scoping (depending on timing of the PA) contribute to the identification of planning issues.

Issues should be described in sufficient detail that they are clear to someone who is not familiar with the park. Each issue or opportunity should be briefly described so as to ensure understanding of the overall range of concerns encompassed by the project. Issues should not be phrased as questions. For example, social trails through dune grasses may be causing destabilization of the dunes. A brief discussion on how dune trampling leads to erosion and wind blowouts is required so that the issue statement provides an overall framework for the later analysis and development of desired conditions and visitor experiences. An issue statement phrased as a generic question (e.g., “what is the desired condition for the dune system, and what visitor experiences, management activities, and facilities would be appropriate to achieving that condition?”) would not be specific enough to guide further analysis and develop alternatives that address the underlying issue.

Primary Products and Services

This section of the PA clearly identifies all the deliverables to be produced during the project. This section typically cover such items as

- regional and WASO briefings and associated materials

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- newsletters — how many and at what phases of the project (specify if additional educational newsletters are needed)
- intranet services (maintenance of internal and external PEPC websites)
- press releases
- public meeting facilitation services and comment summaries
- draft and final GMPs/EISs (including printing and mailing)
- final or “presentation” GMP
- decision document (ROD or FONSI)
- coordination of project close- out activities, including post- project review
- periodic PEPC updates on schedules and milestones

Data Needs

Information needs that are critical to the success of the project should be thoroughly summarized, focusing on the kinds of data needed to address fundamental and other important resources and values and to resolve the primary issues that are known at the start of the project. The summary should identify what information is already available and where it is stored, and what new data is likely to be needed. Any needed special studies are described, such as visitor surveys, natural or cultural resource surveys, or transportation analyses, along with the responsible office, funding source, and means of acquiring funds. This discussion should recognize the current policy against the use of GMP funds to collect new data and should emphasize the responsibility of other program areas to support data collection. GMP funds are appropriately used primarily to gather, analyze, and summarize existing data that are readily available and necessary for the project.

A project should not be funded and started until critical data are available. To ensure adequate information for decision making, the time needed to collect critical missing data or to conduct necessary studies should be planned into the overall schedule between the foundation statement phase and the rest of the GMP phase.

This section should specifically address the facility condition assessment and asset priority information needs, and it should reference the importance of including a discussion of this new information in the cost estimates for the no- action alternative, as well as how this information will be used in the development of alternatives.

Strategies for Public Involvement, Civic Engagement, and Partnership Involvement

The PA must address public, partner, and staff involvement from the outset of the GMP project. Public involvement in general management planning is an integral and critical part of the NPS commitment to engage the public in a continuous, dynamic conversation that strengthens public and NPS understanding of the full meaning and contemporary relevance of the resources in each park unit. This section of the PA should articulate the public involvement goals, outline a communication strategy and protocols, and identify the key stakeholders and how they will be involved. It incor-

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porates all the public notices, meetings, consultations, newsletters, and public review documents required under NEPA, NHPA, and the Endangered Species Act (ESA), and the additional requirements for planning projects included in *DO #75A: Civic Engagement and Public Involvement* (NPS 2003c).

Involving all members of the park staff throughout the planning process, especially those who are not on the planning team, is vital. This helps ensure that everyone responsible for implementing the plan has an opportunity to share their interests and concerns as the plan is being developed. Because park staff live in the communities that surround the park, they can share their understandings, beliefs, and feelings about the plan. This “grass roots” level communication can help a project, as long as staff members feel they have ownership of the planning effort.

Both the public involvement strategy and a general approach or simple strategy for park staff involvement should be included in the PA to guide these efforts (see “5.4. Preparing a Public Involvement Strategy” and Appendix D). The public involvement strategy may be included as a summary or an appendix to the PA.

Compliance and Consultation

This section provides an overview of how the project will comply with NEPA, section 106 of the NHPA, and formal consultation activities. Specific attention to *Federal Register* notices and other NEPA public involvement requirements will help ensure that they are appropriately considered in the schedule and cost estimates. This section should clearly indicate the known consultation and coordination requirements with the state and tribal historic preservation officers and other “consulting parties,” as defined for NHPA section 106 purposes (36 CFR 800.2(c)), with the U.S. Fish and Wildlife Service (FWS), and with any other agencies. Regional and WASO policy consultation on the PA can help ensure that the team has identified all the required consultations.

The Planning, Environment, and Public Comment (PEPC) System will be used for compliance tracking. PEPC is designed to facilitate the project management process in conservation planning and environmental impact analysis.

Some projects may appear to meet criteria for an EA as the appropriate NEPA pathway rather than an EIS. In those cases, this section should lay out the process that would be followed to make that determination (after scoping) and to obtain the needed policy waiver.

Project Management [optional]

This section is new and not specifically identified in the *Park Planning Program Standards*. Its purpose is to clearly describe the overall project management approach, including procedures for a change in project scope, schedule control, cost control, and quality control procedures. (See Appendix B.2.b for an example.)

Communication Procedures [optional]

This is a new section that provides an opportunity to address the critical issue of communication protocol within the planning process/project. It stresses that clear, open, and trust-based communication among team members is essential on planning projects. Topics may include administrative record responsibilities, document mailing, FTP file transfer, e-mail, FAX transfer, PEPC, team involvement and meetings, and document tracking. (See Appendix B.2.c for an example.)

Roles, and Responsibilities for Production, Consultation and Review

This section acknowledges that GMP projects require extensive collaboration, coordination, and consultation among park staff, WASO and regional program managers, and planning and project management support staff. The project manager, in consultation with the park superintendent and regional/WASO program leads (where appropriate), determines the needed expertise and available disciplines and is responsible for assembling a planning team. Project team members are listed in the next section.

For each of the following entities and areas of expertise, the PA specifies the roles and primary responsibilities in carrying out the planning project:

- project management / team leadership
- interdisciplinary project team
- key park, regional, and WASO program managers/consultants
- park and regional support staff
- contractors
- other participants and consultants (e.g., subject matter experts, peer reviewers)
- other park or regional office staff needed for special tasks (such as cost estimating)

If some of the work will be contracted, those services are identified. Scopes of work for contractor responsibilities are developed separately from the PA. The PA should avoid long lists of detailed assignments and instead focus on overall responsibilities. By signing the project agreement the superintendent, regional director, and program manager acknowledge an understanding and commitment of staff for the duration of the GMP.

Project Team Members and Consultants

The project manager, as noted above, is responsible for assembling a planning team. Some members will be continually involved, while others will be consultants who will be identified and brought in at appropriate points in the plan development for additional information, review purposes, and perhaps some section writing. Seeking out appropriate interdisciplinary expertise relative to the particular park resources and purposes is especially important for a credible planning effort. This means that key team members for a cultural park like Gettysburg should include a historian and archeologist, whereas a hydrologist and biologist should play prominent roles in the

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plan development for a natural resource park like Everglades. Nevertheless, a “natural” park may need cultural resource management expertise on the GMP team, and a “cultural” park may need a natural resource expertise.

It may be advisable for planning teams to specifically identify the staff responsible for several key assignments, including assistance with cost estimating, GIS support, American Indian consultations, PEPC administration, and primary contact with the public (including organization of meetings). For a planning team external to a park it is desirable to identify a key contact or liaison to work with the park staff.

Project Schedule, Including Major Milestones

This section identifies major milestones and deliverables for the project and the estimated month and fiscal year of their initiation and/or completion. Major assumptions (such as review times) and constraints (such as limited annual funding) should also be identified. Detailed schedules are not recommended since they tend to evolve and quickly become outdated. Milestones requiring review and approval (e.g., regional director approval, WASO policy review) should be integrated into the schedule, including the office with the lead in completing that item. A chronological listing of these major milestones by fiscal year is the preferred method of presentation so as to present a clear understanding of the project flow. The PA needs to address a commitment and assigned responsibility for tracking the following major project milestones on the NPS intranet portion of the PEPC website <https://pepc.nps.gov>. The following milestones relate to a GMP/EIS, and would be modified for an EA:

- project agreement approval
- notice of intent (NOI) published in the *Federal Register*
- public scoping meetings
- public scoping newsletter
- alternatives newsletter
- park and regional reviews
- WASO policy review draft
- draft GMP/EIS concurrence to print
- notice of availability (NOA) published in the Federal Register
- public draft comment meetings
- final GMP/EIS and NOA
- record of decision signed
- NOA for ROD published in the *Federal Register*
- post- project review
- final presentation GMP printed

Project Budget and Funding Sources

This section clearly identifies the anticipated cost of the project by fiscal year and major project cost elements (e.g., personnel services, travel, printing, and contracting). The cost estimate in the PA updates the initial cost presentation in the PMIS statement. This cost estimate becomes the new project ceiling when the PA is signed.

The estimate is broken down according to fund source so that it is easily understood. For instance, those components being paid for by the GMP program, FLHP or FLHP/GMP support, cultural resources, park base, regional support account, or other sources need to be clearly identified, and the overall cost to each program by fiscal year needs to be apparent. Costs borne by the park for base-funded staff participation are not normally included in the PA. However, if the park is paying for travel for their staff to participate in public or team meetings, this should be delineated.

This section should summarize the assumptions that the cost estimate are based on, such as staffing needs, travel, public involvement, tribal consultations, consultant fees, approximate document sizes and numbers of copies, and the general print quality (e.g., black- and- white versus color, which can have a major impact on printing costs).

The need for funding increases (changes to the project ceiling) will generally be handed through the appeals process, rather than through an amendment.

Project Closeout

The project closeout section for a PA addresses a commitment by key participants to conduct a post- project evaluation of the strengths and weaknesses in the GMP process (including a documentation of “Lessons Learned”), proper accountability for the administrative record, and assistance to the park staff in the development of an initial implementation strategy for the GMP. Final documents will be sent to TIC in electronic format.

Generally, the project evaluation or closeout with the planning team takes place upon approval of the record of decision or FONSI. Key participants in the planning process will ideally participate in a post- project evaluation, preferably in a planning team meeting, to examine strengths and weaknesses in the process and to identify “Lessons Learned.” The project manager will coordinate with WASO PPSS on the use of post- project review questionnaires, and the subsequent discussion will be facilitated and notes recorded. This will be done to assist the National Park Service in improving future plans and the GMP process.

Amendments to the Project Agreement

The PA should spell out the conditions or circumstances that would require an amendment, who may initiate an amendment, and the amendment review and approval process. A significant change in issues, data needs, or public controversy that will result in major changes in the achievement of project milestones and/or

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major changes in the scope of the project will require a PA amendment, with associated reviews and approvals.

Appendixes

Information that is useful to understanding the provisions of the project agreement should be attached if needed.

3.5.2 Examples of Project Agreements

Examples of PAs can be found at the following locations:

PEPC website: <https://pepc.nps.gov>

Intermountain Region website:

<http://inside.nps.gov/regions/custommenu.cfm?lv=3&rgn=1005&id=5665>

DSC Workflow template site: <http://workflow2.den.nps.gov/Forms.htm#planning>

3.5.3 The Review and Approval Process for a Project Agreement

Depending on region- specific protocols, the length of time associated with developing a PA will vary. Generally, the draft PA is circulated first to the park and region for input. Once comments have been incorporated, it is posted on PEPC and forwarded electronically to the WASO Park Planning and Special Studies Division. All major NPS programs are provided an opportunity to review and comment on the PA. WASO program managers review the project agreement for consistency with policies, program standards. Consolidated WASO comments are then returned electronically to the region, with instructions for the team on needed revisions. Once revised, the PA is recommended by the project manager (or by the DSC planning division chief, if appropriate), and by the WASO PPSS program manager, agreed to by the superintendent, and approved by the regional director. Copies of the final signed PA are sent to the park, region, DSC (if appropriate), and WASO PPSS. (For more details on WASO consultation and procedural guidance for PAs, see Appendix A.1.)

Development of the PA is a somewhat lengthy process from start to approval, and it may take six or more months after the project begins before it is final.

3.5.4 The Amendment Process for a Project Agreement

A PA is a dynamic document. To remain useful, it must evolve as the project proceeds. Amendments may be handled with attachments or new agreements that highlight the changes agreed to by all the previous signatories. WASO policy review is not required for amendments unless there is a significant change in scope, schedule, or cost. A phone call or an e- mail to the WASO PPSS program manager can help determine this need, if there is a question. Copies of all signed amendments should be sent to WASO PPSS for the project file, and the changes should be reflected in the online tracking system. The following changes would require an amendment:

- significant changes in scope, data needs, or public controversy that will result in major changes in the completion of project milestones and/or major changes

in the scope of the project (particularly those uncovered between the foundation statement and the rest of the GMP)

- changes in the schedule of more than 6 months
- any funding increase that exceeds the project ceiling
- changes in key personnel, such as the superintendent or project manager, that result in other changes listed above (e.g., delay of more than 6 months in the schedule)

3.5.5 Appeals

The PA reflects a commitment by the signatories to complete a GMP that meets the established program policies, standards, and project scope with the funds identified. When projects are initiated, the planning team should anticipate the potential for changes in scope or schedule, advise regional and park leadership of the need to stay within budget, and consider sources of funding beyond the GMP program. The approved project ceiling should be considered the maximum amount that the GMP program can be expected to provide for the project, and the best possible GMP should be produced for that amount.

During the lifespan of a planning project, unforeseen circumstances may occur that will impact the project ceiling. If project costs may exceed the project ceiling, an appeal should be prepared, which will be reviewed by the WASO PPSS program manager. The necessity of a written appeal to increase the project ceiling depends on factors such as stage of completion, amount requested, and extenuating circumstances. If a formal written appeal is required, the document submitted to PPSS should include a brief description of the project, a timeline of progress to date and the dollars associated with each milestone achieved, a statement including the existing project ceiling amount, the increase amount requested, and the new project ceiling amount if the increase is approved. A detailed justification and rationale for the increase should be included in the appeal that clearly explains why the project ceiling will be exceeded, what the benefit will be if the increase is granted, and how the additional monies will be prudently used to produce an acceptable quality end product.

3.6 PLAN TRACKING AND PUBLIC COMMENTS ON THE INTERNET (PEPC)

The Planning, Environment and Public Comment (PEPC) System, launched in 2005, is the NPS web- based project management and tracking database for all projects requiring compliance. The PEPC system helps manage all stages of the compliance process. It also is a valuable aid in developing a project's administrative record. All NEPA- related documents on WASO review, including the PA and all draft GMPs, should be posted on the NPS internal PEPC website. The system also includes a public site where individuals can find out about activities going through compliance, as well as the internal NPS site for project management information.

The public site (<http://parkplanning.nps.gov>) allows timely access from a single external website to project descriptions, NEPA process information (e.g., public

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scoping notices, meetings, and comment periods), and planning and NEPA documents (e.g., GMPs, fire management plans, EAs, EISs, and other plans and decision documents).

The PEPC system offers a simple way to comment on proposed or current projects by allowing individuals to post comments about planning documents directly into the PEPC system via a web- based comment form. Written comments are still accepted, but they will have to be scanned and entered into the system manually by project team staff. It is strongly recommended that PEPC be the only method of electronic comment made available to the public to reduce the amount of staff time required to manually input correspondence into the system. All GMP project teams must use PEPC as the web- based tool for communicating with the public. Newsletters and draft and final documents are all posted in PEPC. Questions included in newsletter comment forms should be included in the superintendent's introduction on the PEPC public site, with directions on how to respond to the questions.

The internal side of the PEPC system (<https://pepc.nps.gov>) provides the following features:

- tracking of major project milestones
- ability to post both public and internal documents for review
- ability to gather, analyze, and respond to internal and public comments
- team collaboration and communication
- access to planning project data at all levels and locations within the national park system
- reports on project status and trends across planning projects

Each project agreement needs to include roles and responsibilities for PEPC data entry and maintenance. Some parks have PEPC coordinators responsible for the integrity of the park project data; others do not and will rely on the project manager, a team member, or the regional coordinator for that role. For projects already underway, these responsibilities should be clearly identified if not already defined in the PA.

All internal system users must go through the appropriate PEPC training before being assigned a password for access. These courses can be taken by logging onto the intranet site "DOI Learn" (doilearn.doi.gov/training). In order to receive a PEPC login and password to access the PEPC system, users must take the "Introduction to PEPC" course.

For more information on PEPC, the PEPC website has a helpful tool button. A PEPC guide, training materials, and e- courses, as well as other tools, are included under this button. Enhancements to PEPC are periodically updated under a link to "PEPC fixes." Guidance for posting planning documents on PEPC for WASO review is included in Appendix A.4. Regional and park PEPC administrators are also useful sources and are listed on the PEPC home page.

4. LEGAL REQUIREMENTS FOR GMPS

4.1 LEGAL REQUIREMENTS FOR GMP CONTENT

The statutory requirements for GMPs were established in the 1978 National Parks and Recreation Act (16 USC 1a- 7). They require that all GMPs include the following:

1. measures for the preservation of resources
2. indications of the types and general intensities of development (including visitor circulation and transportation patterns, systems, and modes), including general locations, timing of implementation, and anticipated costs
3. identification of and implementation commitments for visitor carrying capacities
4. indications of potential boundary modifications

A GMP meets these requirements by

1. describing the desired resource conditions and visitor experiences to be achieved and maintained in each particular area of the park
2. identifying the kinds and levels of resource management, visitor use management, development, and access appropriate to the desired conditions (requirements 1 and 2, above)
3. setting measurable standards for user capacity (legal requirement 3)
4. addressing potential boundary modifications (legal requirement 4)

The primary duty of the National Park Service is to protect the national parks and national monuments under its jurisdiction and keep them as nearly in their natural state as this can be done in view of the fact that access to them must be provided in order that they may be used and enjoyed. All other activities of the bureau must be secondary (but not incidental) to this fundamental function relating to care and protection of all areas subject to its control.

—Stephen Mather, NPS Director, 1917–1929

4.1.1 Measures for the Preservation of Resources

The measures for the preservation of resources that are included in the GMP do not provide detailed guidance for implementing one particular set of actions, but rather broad guidance about a range of appropriate management actions that might be taken over time to achieve desired conditions. Decisions about when action is needed and what particular action should be taken fall within the purview of the park's resource stewardship strategies, strategic plans, and implementation plans, as described below.

During GMP planning efforts, resource preservation is approached in two steps. First is the identification of those resources and values that are fundamental to achieving the park's purpose and maintaining its significance or that are otherwise important enough to warrant special consideration during planning. These resources include opportunities for visitor enjoyment. (This process is discussed in detail in

Chapter 6.) Second is the establishment of the desired conditions for those resources and values, including the kinds and levels of management actions, development, and access that would be appropriate to achieving and maintaining the desired resource conditions and visitor experiences. (This step is discussed in detail in Chapter 7.) This step- down approach helps ensure that (1) planning and decision making are focused on what is most important, and (2) management is ultimately accountable for results — the desired conditions — and not just for the execution of a particular set of management actions that may or may not be wholly effective.

The statements of desired resource conditions established by the GMP are usually broad, qualitative goals rather than measurable objectives. However, they provide important guidance to the park's various resource program managers, who tier programmatic, strategic, and implementation planning decisions off these GMP goals. One of the purposes of the various program management plans, as stated in the *Park Planning Program Standards*, is to translate the qualitative statements of desired conditions, established through general management planning, into measurable or objective indicators that can be monitored over time to assess the degree to which the desired conditions are being achieved.

If, over time, particular management actions are not producing the desired conditions, managers are directed by the GMP and relevant program plans to develop and implement more effective actions. The park's strategic plan allocates funding to the highest priority actions, and project implementation plans (if needed) or annual work plans provide the details about the actions to be taken. The circular practices of monitoring and management action continue indefinitely: a needed and presumably appropriate management action is taken to achieve a desired condition; the resulting condition is monitored and assessed; and the management action is either continued or revised, depending upon the observed results.

4.1.2 Types and General Intensities of Development, Including Transportation

By law GMPs must include indications of the types and general intensities of development (including visitor circulation and transportation patterns, systems, and modes) associated with public enjoyment and use the area. This should include general locations, timing of implementation, and anticipated costs.

Initially, the NPS response to this requirement was to prepare detailed development concept plans and cost estimates for facilities as a key component of GMPs. However, evaluations of the GMP process over many years found that this detailed site planning needed to be repeated and changed once funds became available for implementation. Current practice is to provide broad guidance in the GMP, but leave detailed site planning to a later stage.

Current GMPs meet this requirement through management zoning that identifies areas of the park appropriate for certain types and intensities of development. The zone prescriptions include desired conditions for resource preservation and visitor experience and discuss the types and levels of facilities that would be appropriate for each zone. For instance, the GMP for Flight 93 National Memorial identifies an area

(zone) for visitor support facilities (visitor center, restrooms, access roads, walkways, parking lots, etc.). It is located where the National Park Service determined with extensive public involvement during the GMP process that this type of development is appropriate. Discussion of levels of development often include qualifiers such as “dispersed” or “high density,” but do not quantify square feet of facilities or miles of trails, since these may change over the life of the plan. The preparation of cost estimates, including costs of development, is discussed in Chapter 9.

Transportation is an integral element of general management and other park planning efforts. The objective of incorporating transportation planning into the GMP is to analyze existing transportation conditions and to identify issues, problems, and needs as a foundation for forecasting and planning for future transportation systems; and to enable a comprehensive evaluation of alternatives and environmental impacts.

The location, type, and design of transportation systems and their components (e. g., roads, bridges, trails, parking areas, and alternative transportation systems), all strongly influence the quality of visitor experiences. These systems also affect, to a great degree, how and where park resources will be impacted. For these reasons, management decisions regarding transportation facilities require a comprehensive, interdisciplinary consideration of alternatives and a full understanding of their consequences.

4.1.3 User Capacity

User capacity, previously referred to as visitor capacity or carrying capacity, came to the forefront of public land planning in the 1970s. As noted above, the 1978 National Parks and Recreation Act calls for each unit of the national park system to have a plan that identifies and commits to implementing visitor carrying capacities. Since 1978 NPS planners have found that user capacity is a more appropriate term than visitor capacity because it conveys the concept that capacity is applicable to all public park users, including subsistence users and other local residents.

In 1992 the National Park Service began developing a visitor experience and resource protection (VERP) framework to address user capacities for units of the national park system. A handbook was published to guide the VERP process in 1997, and the first steps of that process were subsequently incorporated into the revised general management planning process adopted in 1998. The GMP process has now been further refined to include even more of the steps used to manage user capacities in parks, including the identification of indicators and standards. This topic is discussed in Chapter 8.

4.1.4 Potential Boundary Modifications

“Indications of potential boundary modifications” is the last of the four elements that Congress directed the National Park Service to consider in the development of GMPs for parks. Park boundaries are often drawn to reflect a wide range of practical considerations at one point in time, and they do not necessarily reflect natural or cultural resource features, administrative considerations, or changing land uses. Park managers frequently respond to problems with adjacent lands as they arise, but

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Congress, state and local governments, and the general public often ask questions about what is really necessary to protect park resources. The impacts associated with current or potential changes in adjacent land uses are some of the most frequently cited reasons why parks seek funding for a new GMP.

It is important for the GMP to take a comprehensive look at concerns about adjacent land uses, implications for management of lands within the authorized boundary, and potential for boundary adjustments. In some cases it will be appropriate for the GMP to identify areas of interest or concern in very general terms, perhaps following topography, watersheds, or roads. More detailed evaluation might follow the GMP in a separate boundary study. In other cases, where the lands and ownership patterns are not extensive or complex, the GMP might get more specific about identifying lands that meet criteria for inclusion in the park. In either situation, adding lands to the park and having them acquired by the National Park Service is only one of many ways to accomplish goals for resource protection and enhanced quality of visitor experiences. By identifying areas of concern in the GMP, the park can promote partnerships with local governments, neighboring land managers, and private owners. Having some information in the park's GMP regarding possible boundary modifications can help support and facilitate legislation when needed to take advantage of arising opportunities due to a willing-seller situation. Following are some examples of external influences or other conditions that may prompt the park staff to include a potential boundary modification proposal in their GMP.

- The 1993 GMP for Petrified Forest documented that the park encompassed only a portion of the globally significant paleontological resources inside and adjacent to the park. The plan cited several prominent experts in the field who confirmed the importance of resources outside of the park boundary and their direct relationship to resources within the park. In 2004 Congress followed the recommendation in the GMP and expanded the park boundary by 103,000 acres, primarily encompassing state lands.
- The Mary McLeod Bethune Council House in downtown Washington, D.C., is a single family row house. The GMP identified the need for improved access for people with disabilities and the need for administrative space. The plan documented that acquisition of an adjacent townhouse would be the most appropriate way to provide for the additional access and administrative space.
- The original authorization for Petersburg National Battlefield encompassed about 2,600 acres. However, the Civil War battle action took place on more than 10,000 acres around Petersburg, Virginia. A GMP nearing completion in 2005 identified about 7,000 acres that still retained their integrity and had potential for addition to the park. The National Park Service would not need to own all of these acres in fee, and the analysis in the GMP was instrumental in helping guide private conservation initiatives.

These three examples highlight some common situations that suggest the need to consider external influences when completing a GMP. The criteria for potential boundary adjustments identified in the NPS *Management Policies 2006* (sec. 3.5) state that boundary adjustments may be recommended for the following purposes:

4.1. Legal Requirements for GMP Content

- Protect significant resources and values, or enhance opportunities for public enjoyment related to park purposes.
- Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads.
- Otherwise protect park resources that are critical to fulfilling park purposes.

Potential boundary adjustments must also be feasible to administer, considering size, configuration, ownership, costs, and other factors. Other alternatives for management and resource protection must have been assessed and judged to not be adequate. This last item is particularly important in today's budget climate. Consideration of all these elements must be expressed in the GMP.

The boundary of a national park system unit may be modified only as authorized by law. For many units, such statutory authority is included in the enabling legislation or subsequent legislation specifically authorizing a boundary revision. The Alaska National Interest Lands Conservation Act established a statutory ceiling of 23,000 acres as a minor boundary adjustment for park units in Alaska (16 USC 3103(b)). Where unit-specific authority is not available, the Land and Water Conservation Act of 1965, as amended, provides for boundary adjustments that essentially fall into three distinct categories: (a) technical revisions; (b) minor revisions based on statutorily defined criteria; and (c) revisions to include adjacent real property acquired by donation, purchase with donated funds, transfers from any other federal agencies, or exchange. Adjacent real property is land located contiguous to but outside the boundary of the park.

Section 1216 of the Arizona Desert Wilderness Act of 1990 (16 USC 1a- 12) directs the secretary of the interior to develop criteria to evaluate any proposed changes to the existing boundaries of individual units of the national park system. These criteria are to include

- an analysis of whether the existing boundary provides for the adequate protection and preservation of the natural, historic, cultural, scenic, and recreational resources integral to the unit
- an evaluation of each parcel proposed for addition or deletion based on this analysis
- an assessment of the impact of potential boundary adjustments, taking into consideration the factors listed above as well as the effect of the adjustments on the local communities and surrounding areas

Section 1217 of that act also provides that in proposing any boundary change, the secretary shall carry out the following activities:

- Consult with affected agencies of state and local governments, surrounding communities, affected landowners, and private national, regional, and local organizations.
- Apply criteria developed pursuant to section 1216 and accompany the proposal with a statement reflecting the results of the application of such criteria.

4. LEGAL REQUIREMENTS FOR GMPs

- Include an estimate of the cost of acquisition of any parcels proposed for acquisition together with the basis for the estimate and a statement on the relative priority for the acquisition of each parcel within the priorities for other lands in the unit and the national park system.

In addition, other alternatives for management and resource protection need to be assessed and judged to be not adequate. Where a boundary adjustment appears to be appropriate, the National Park Service will recommend it to the secretary of the interior for legislative or administrative action.

The NPS *Criteria for Boundary Adjustments* was published in 1991, and a copy is posted on the WASO Park Planning and Special Studies intranet site at <http://inside.nps.gov/waso/custommenu.cfm?lv=2&prg=50&id=3317>.

For boundary revisions, the park manager must identify the appropriate authority early in the process and work closely with the realty officer and/or the WASO Legislative Affairs Office on the appropriate procedure to follow. In many instances legislation may be required to authorize the revision. Any questions regarding implementation of boundary revision authority should be directed to the WASO Land Resources Division or to the appropriate Regional Land Resources Program Center. See also *DO #25: Land Protection* (NPS 2005a), <http://www.nps.gov/policy/DOrders/DOrder25.html>.

Examples of GMP proposed boundary adjustments for Badlands and Mount Rainier national parks are included in Appendix C.1. Other examples of GMPs with boundary adjustments include the 2004 *Colorado NM GMP*, the 2006 *Olympic NP GMP*, and the 2006 *Abraham Lincoln Birthplace NHS GMP*.

4.2 NEPA REQUIREMENTS FOR GMPs

NEPA requires federal agencies to fully consider the environmental impacts of their proposed actions before they make any decision to undertake those actions. NEPA and the regulations of the Council on Environmental Quality (CEQ) for implementing NEPA put two important mechanisms in place to achieve this goal. One is the requirement that, well before any decisions are made, all agencies make a careful, complete, and analytical study of the impacts of any proposal that has the potential to affect the human environment, as well as alternatives to that proposal. (The National Parks Omnibus Management Act of 1998 also requires that NPS management decisions be based on ample technical and scientific studies.) The other is the mandate that agencies be diligent in involving any interested or affected members of the public in the NEPA process.

The level of decision making in a GMP triggers NEPA because the decisions will affect future land and resource use. Section 101(b) of NEPA speaks of sustainability, balance, and knowledge and protection of environmental resources, including ecological systems. It is the intent of Congress for federal agencies, such as the National Park Service, to use NEPA not only as a tool to look at whether to pave a road or build a trail, but as a guide in the larger aspects of NPS decision making. Topics such as how resource use in a park will affect an entire region or ecosystem,

4.2. NEPA Requirements for GMPs

how to preserve resources while allowing for appropriate public use and enjoyment, or how a decision now will affect park management options in the very long- term future are the kinds of issues NEPA was designed to emphasize.

CEQ encourages federal agencies to use a tiering process, working from broad, general NEPA environmental impact analysis documents to more site- specific ones in decision making. Tiering allows the National Park Service “to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe” (40 CFR 1508.28).

GMPs focus on desired conditions to be achieved and maintained in parks over a relatively long period of time. Consequently, they are generally large in scope, implemented in phases over many years, and contain little or no detail about specific actions. As a result, the NEPA analysis for GMPs is typically a programmatic, or broad- scale analysis, rather than a site- specific analysis. As decision making moves from general management planning into program planning, strategic planning, and implementation planning, the need for information becomes increasingly focused and specific, requiring additional analysis at those levels.

See *The DO- 12 Handbook* (<http://www.nps.gov/policy/DOrders/RM12.pdf>) for comprehensive guidance about NEPA requirements. Some discussion of special considerations in applying NEPA to GMPs is included below.

4.2.1 Determining the Appropriate NEPA Pathway for a GMP

The environmental screening form (ESF) is required by *DO #12* for determining the appropriate NEPA pathway for all NPS actions. It is standard NPS practice and policy to prepare an EIS with a GMP. However, a regional director, in consultation with the NPS Environmental Quality Division (through the associate director for natural resources stewardship and science), may grant an exception to the above general rule and approve the preparation of an EA for a GMP under the following conditions:

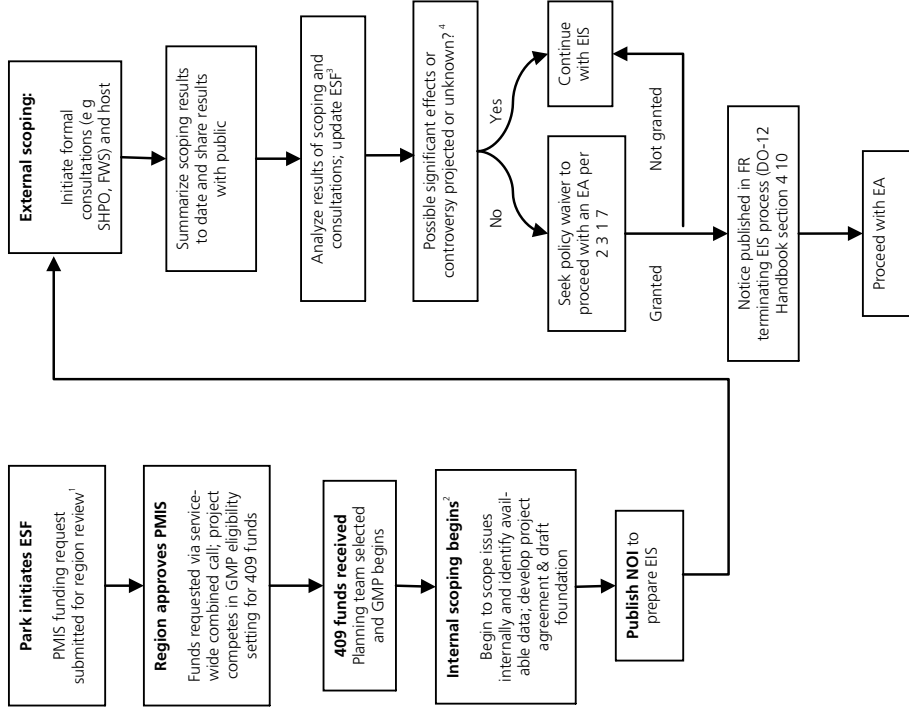
- scoping indicates there is no public controversy concerning potential environmental effects **and**
- the initial analysis of alternatives clearly indicates there is no potential for significant impact by any alternative (see *NPS Management Policies 2006*, sec. 2.3.1.7)

Depending on the GMP, a waiver can be sought at any time, but typically after the analysis of public scoping comments or later in the planning process. Another appropriate point to seek a waiver is after the public review of the draft alternatives and preliminary impact analysis when the planning team will be able to gauge whether significant effects or controversy are likely. Examples of parks that have received waivers to prepare EAs include Chickasaw NRA, John Day Fossil Beds NM, Amistad NRA, Herbert Hoover NHS, Hovenweep NM, Fort Stanwix NM, and Boston African American NHS. An example of a waiver for an EIS is included in Appendix C.2, along with an example of a *Federal Register* notice terminating an EIS.

An overview of the process for determining the appropriate NEPA pathway for all GMPs is provided in Figure 4.1.

4. LEGAL REQUIREMENTS FOR GMPs

FIGURE 4.1: NEPA PATHWAY FOR ALL GMPs



1 The ESF is a planning tool to help determine the scope of the GMP (e.g., what resources of concern may require additional data or investigation; what issues may potentially arise from consultation with the public, other agencies, etc.) Use of the ESF at this stage may allow the project funding requirements

2 DO #12 requires internal scoping to determine the project/purpose, need and objectives, preliminary alternatives (feasible), and the appropriate NEPA pathway. Purpose, need and objectives, and preliminary alternatives (feasible) must be discussed in the NOI or other media for public review and input. The ESF is used to further refine the resource issues of concern, review existing data, help determine what information is still needed, and potential resource effects. As information is gathered, for example, a finding in the ESF of "data needed to determine" may change to indicate that only a minor effect is anticipated by the action.

3 The planning team, after consultation with the public and agencies, may again gain further knowledge to refine the ESF findings.

4 This step can also occur later in the process, after the development of draft alternatives and the preliminary impact analysis has been completed. "Significant effect" is determined through use of the ESF. Both adverse and beneficial impacts must be considered. Generally, if a project has the potential for greater-than-minor impacts to the human environment an EA is required, at a minimum. Moderate to major impacts, as a general rule, indicate a greater level of effects and an EA should be prepared. (See DO #12, section 2.11 and the ESF form for further guidance.)

NOTE: Revisions being considered to the *The DO-12 Handbook* may affect the above steps in determining the appropriate NEPA pathway, including the requirement to prepare an EIS for GMPs.

4.2.2 Special Considerations when Conducting Programmatic NEPA Analysis Associated with GMPs — Integrating NEPA into GMPs

Order of Planning

As NPS planners and managers have worked to strengthen the general management planning process by “front-loading” it with analysis, they have been able to create better alternatives for consideration and evaluation by all the park’s stakeholders. Compared to alternatives that might have been considered 20 years ago, now alternatives more consistently focus on a park’s particular purpose and significance; they more consistently avoid the potential for inadvertent impacts to natural or cultural resources; and they more consistently address visitor experience in terms other than the adequacy of facilities to accommodate demand.

In a combined GMP/EIS or GMP/EA it is important to integrate the general management planning process “steps” with the standard NEPA steps into a single, logical, trackable decision-making process. One way of expressing the relationships among those steps is outlined in Table 4.1. For purposes of discussion, the steps have been grouped into five broad categories: preplanning, scoping, development of alternatives, impact assessment, and identification of the preferred alternative.

TABLE 4.1: INTEGRATING GENERAL MANAGEMENT PLANNING AND NEPA PROCESSES

Planning Categories	Steps in a Typical NEPA Analysis Process	Process Requirements Specific to General Management Planning
PREPLANNING: Project Agreement and Foundation Statement	Identify the purpose of and need for action.	Identify the need for the plan.
		Identify and/or affirm park purpose, significance, primary interpretive themes, special mandates, and NPS legal and policy requirements.
		Analyze fundamental and other important resources and values.
		Identify information gaps and gather needed data.
SCOPING		Identify the major questions to be answered by the plan.
	Identify goals and objectives in taking action.	GMPs tier off park purpose and significance and the NPS <i>Management Policies</i> ; the decisions made through general management planning constitute the park’s major goals.
	Identify the proposal.	
	Identify issues or problems that need to be addressed to reach park goals and objectives.	Identify environmental issues and impact topics.
DEVELOPMENT OF	Create a range of reasonable and feasible alternatives to resolve issues	Create a range of reasonable and feasible alternatives to resolve the issues

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Planning Categories	Steps in a Typical NEPA Analysis Process	Process Requirements Specific to General Management Planning
ALTERNATIVES	and meet plan objectives to a large degree.	and meet plan objectives to a large degree.
IMPACT ASSESSMENT	Identify additional information gaps and gather needed data.	Identify additional information gaps and gather needed data.
	Assess impacts and identify the environmentally preferred alternative.	Assess impacts and identify the environmentally preferred alternative.
IDENTIFICATION OF THE PREFERRED ALTERNATIVE		Analyze the comparative value of the alternatives.
	Identify the preferred alternative.	Identify the preferred alternative.

Purpose of and Need for Action

The primary purpose of a combined GMP/EIS or GMP/EA is to provide a framework or plan for park managers to use when making decisions about how to best protect park resources, how to provide quality visitor uses and experiences, how to manage visitor use, and what kinds of facilities to maintain and develop, if any, in or near the park. This framework includes the following elements:

- Provide a realistic vision for the park's future, setting a direction for the park that takes into consideration the environmental as well as the financial impact of existing and proposed facilities and programs.
- Establish the resource conditions, opportunities for visitor experiences, and general kinds of management, development, and access that will best achieve the park's purpose and maintain its significance (the primary focus of the GMP).
- Establish a common management direction for all of a park's divisions and units.

Depending on the park, there may be various reasons or needs to prepare a GMP. In addition to satisfying legal and policy requirements (addressed in Chapter 3), other needs for a GMP may include:

- the existing GMP is outdated
- conditions have changed substantially within or outside the park (e.g., visitation, resource condition, land use)
- new designations have occurred (e.g., wilderness, national historic landmark)
- new studies have provided new information that affects park management
- pressing unresolved issues need to be addressed

No-Action Alternative

At the general management planning level, the "action" alternatives are focused more on desired conditions than on the specific actions needed to achieve those condi-

tions. In order to present the no- action alternative in a manner parallel to the action alternatives, it, too, should be focused on conditions rather than on actions (see “7.3.5. Special Considerations for the No- Action Alternative,” page 7- 41).

Analysis of Alternatives

The challenge for the general management planning team in a programmatic analysis is to adequately describe the fundamental differences in effects on resources and values from one alternative to the next, to provide enough detail to make the analysis meaningful despite the broad, general nature of the alternatives. This requires a more focused identification and disclosure of the major resources and human values at stake, the impact topics used to analyze the environmental impacts of the alternatives, and the primary changes that an action or alternative would have from the current situation. Importantly, the programmatic analysis establishes a logical, trackable linkage between the major decisions that will be made about desired conditions and the related major tradeoffs. These linkages become the primary factors used to select the NPS preferred alternative. Analysis is discussed in detail in Chapter 10.

4.2.3 NEPA Public Involvement Requirements

CEQ requires agencies to make “diligent” efforts to involve the interested and affected public in the NEPA planning process. The minimum NPS public involvement requirements for a GMP/EIS project are listed below. The planning process needs may generate additional public involvement. (NOTE: WASO requires a briefing statement to accompany all *Federal Register* notices identified below.)

TABLE 4.2: NPS PUBLIC INVOLVEMENT REQUIREMENTS FOR A GMP/EIS

Requirement	Action
Notice of intent (NOI) to prepare a GMP/EIS	Publish the NOI to prepare an EIS in the <i>Federal Register</i> .
Formal NEPA scoping	Conduct internal and external scoping; include other state, local, tribal governments and federal agencies and the public.
NOA for the draft GMP/EIS	File the draft GMP/EIS with the Environmental Protection Agency, which publishes a notice of availability (NOA) in the <i>Federal Register</i> .
Distribution of draft GMP/EIS	Send copies of the draft GMP/EIS to (a) all federal agencies that have jurisdiction by law or special expertise, and all appropriate federal, state, or local agencies or Indian tribes; (b) any interested or affected individuals or organizations; and (c) anyone who requests a copy. It is acceptable to send electronic copies of the document or CDs rather than paper copies to people requesting copies of the documents.
Public review of draft GMP/EIS	Provide a minimum 60-day period for review of the draft GMP/EIS, beginning on the date when the EPA publishes the NOA in the <i>Federal Register</i> . The National Park Service also is required to file a NOA, but the 60-day public comment period begins on publication of the EPA NOA.
Public meeting	Conduct a public meeting. (Note: A public hearing* is

4. LEGAL REQUIREMENTS FOR GMPs

Requirement	Action
	mandatory for a GMP/wilderness study.)
NOA for the final GMP/EIS	File a final GMP/EIS with the EPA that adequately responds to the comments received during the review period; publish a NOA for the final GMP/EIS in the <i>Federal Register</i> . Wait 30 days from the time EPA publishes their NOA before a ROD is signed.
Distribution of final GMP/EIS	Send the full FEIS to (a) any individual or organization that has made a substantive comment; (b) all agencies or tribes that have commented; (c) anyone who requests it.
Notice for the record of decision (ROD)	Publish the ROD or a summary in the <i>Federal Register</i> and in the local newspaper of record.

* A hearing is a formal public meeting conducted by a hearing officer, usually involving specific time limits on public testimony. Public oral comments are taken verbatim for the administrative record.

The minimum NPS public involvement requirements for a GMP/EA are as follows:

TABLE 4.3: NPS MINIMUM PUBLIC INVOLVEMENT REQUIREMENTS FOR A GMP/EA

Requirement	Action
NOI to prepare a GMP/EIS	Publish a <i>Federal Register</i> notice of intent (NOI) to prepare an EIS.
Formal NEPA scoping	Conduct internal and external scoping.
Termination notice for preparing an EIS	Publish the notice in the <i>Federal Register</i> . Note that the National Park Service intends to complete an EA and anticipates issuing a finding of no significant impact (FONSI) at the end of the process. Should a FONSI be issued, it will be available for public review for a period of 30 days before the park begins implementation of its decision, in accordance with NPS policy.
Distribution of draft GMP/EA	Notify the public that an EA is available for review. Send copies of the draft GMP/EA to (a) all federal agencies that have jurisdiction by law or special expertise, and all appropriate federal, state, or local agencies or Indian tribes; (b) any interested or affected individuals or organizations; (c) anyone who requests a copy. It is acceptable to send electronic copies of the document or CDs containing the document rather than paper copies to people requesting copies of the documents.
Public review of draft GMP/EA	Provide a minimum 30-day period for review of the draft GMP/EA, beginning on the date when the draft is distributed.
Public meeting	Conduct a public meeting(s).
FONSI for the GMP (if appropriate)	Prepare and distribute a FONSI.
Notice for the FONSI	Publish a notice in the local newspaper of record, notifying the public of the contents of the FONSI, that the EA process has been completed, and that the GMP will be implemented following a 30-day waiting period. Section 6.3G of <i>DO-12 Handbook</i> also states that a notice of a waiting period should be published in the <i>Federal Register</i> .

For additional details on these NEPA requirements, see *The DO- 12 Handbook*, and the DSC workflows for GMPs. WASO guidance for *Federal Register* notices is included in Appendix A.2. In addition, the Intermountain Region provides detailed instructions for preparing NOIs and NOAs on its website, which although specific to that region also have some general applicability for all projects.

A brief overview of the NEPA scoping process and references to suggestions in this sourcebook about how to conduct internal and external scoping for GMPs are provided below.

Formal NEPA Scoping

Scoping is usually early engagement of interested and affected public and agencies. It is a NEPA requirement for EISs and is required in *The DO- 12 Handbook* (sec. 5.5.A) for EAs as well. According to NEPA, scoping is an early and open process to determine and frame the environmental issues and alternatives to be addressed in a NEPA document.

The purposes of scoping, as defined in *The DO- 12 Handbook* (sec. 4.8.B), are to

- determine important issues
- eliminate issues that are not important or relevant
- identify relationships to other planning efforts or documents
- define a time schedule of document preparation and decision making
- “size the analysis box,” which includes defining purpose and need, agency objectives and constraints, and the range of alternatives

NPS managers and planners often use the term scoping to describe any activity, regardless of timeframe, that contributes to an understanding of the issues and the kinds of information and activities that will be needed to address those issues. This kind of scoping begins even earlier than the NOI, when the park begins to assess its planning needs and readiness. Also, because planning is iterative and responsive, new issues may surface at any time throughout the planning process, not only in the early stages.

There are two types of scoping, external and internal.

External Scoping

External scoping is the canvassing of the public and other agencies on what needs to be analyzed in an EIS or EA. It usually has a defined period of time that is announced in the *Federal Register* NOI, press releases, public scoping brochures, and on the PEPC public website. When people refer to scoping, they are often referring to this formal, required scoping period. External scoping activities should not occur before the publication of the NOI, and any activities that did occur would not contribute to meeting formal NEPA EIS scoping requirements. The required elements of the NOI include a description of the intended scoping process and the dates and locations of

any scoping meetings that might be held. (If the dates and/or locations are not known, it can be noted that specific dates, times, and locations will be announced in the local media.) The NOI and a required accompanying briefing statement should be prepared as early as possible in the planning process to provide sufficient time for reviews and printing in the *Federal Register* before formal NEPA scoping commences. (An example of a briefing statement can be found at <http://workflow2.den.nps.gov/Forms.htm>).

NPS managers and planners are specifically directed to expand on the minimum required public consultation defined by CEQ and to educate the public about how they can better participate so that more of the public becomes actively engaged in planning (see “Chapter 5. Public Involvement for GMPs”).

It is important to note that although external scoping usually is thought of as the early engagement of interested and affected public and agencies (when the public often can provide helpful information to a planning team), in fact scoping is not a single meeting or an event in the planning process. Rather, scoping occurs throughout the planning process up to the time a draft plan is printed.

Internal Scoping

Internal scoping is the canvassing of NPS staff (park, region, WASO) to decide what needs to be analyzed in an EIS or EA. Internal scoping is a less formal process that begins before or as soon as funding has been provided to begin work on a GMP and essentially continues throughout the project. Internal scoping helps focus the GMP / EIS or EA, including the development of preliminary alternatives and the environmental analysis. The information collected from internal scoping is used in preparing the PA for a GMP, particularly in identifying the scope of the GMP, the team members, the schedule, and the budget for the project (see sec. “3.5. Project Agreements”). This information also helps set boundaries for the GMP/NEPA document, including helping to determine which NEPA pathway may be most appropriate.

Typically, the project manager goes out to the park and meets with park and regional staff to conduct initial scoping. Planning team members usually also go to the park, either on the initial scoping trip or on a subsequent trip, to become familiar with the park as well as park staff issues and concerns.

Internal scoping for a GMP/NEPA document should accomplish the following:

- Identify the analysis boundaries and project scope.
- Determine what connected, cumulative, or similar actions need to be considered.
- Define the purpose of and need for the GMP/NEPA document.
- Determine agency objectives and constraints for the GMP.
- Identify stakeholders, agencies, or individuals who might be interested in or have expertise in impact topics for the GMP/NEPA document.
- Agree on a public involvement strategy.

4.3. Other Compliance Requirements for GMPs

- Agree on the primary products and services and the roles and responsibilities for production, consultation, and review of the GMP/NEPA document.
- Identify data needs.

4.3 OTHER COMPLIANCE REQUIREMENTS FOR GMPs

In addition to NEPA, other federal, state, and local laws, executive orders, and federal regulations impose additional requirements GMPs may need to satisfy, depending on the park's location and actions being proposed in the alternatives. The full range of legal requirements should be identified as part of the scoping process and integrated into the NEPA document where appropriate. Several examples of these compliance requirements are listed below, but there may be additional requirements that may be applicable for a GMP (e.g., consultations with the National Marine Fisheries Service regarding actions that may affect essential fish habitat, a requirement to analyze impacts that may affect prime and unique farmlands)

- **Floodplains** — If a GMP is proposing certain new facilities (e.g., administrative buildings, campgrounds, fuel storage facilities, or museums) in a floodplain, or if certain facilities are to be retained within a regulatory floodplain, then a statement of findings (SOF) needs to accompany the GMP, usually as an appendix. Examples of statements can be found in the 2006 *Chickasaw NRA GMP/EA* and the 2006 *Olympic NP GMP/EIS*. For details on preparing statements of findings, see the *NPS Procedural Manual 77- 2: Floodplain Management* (NPS 2004e).
- **Wetlands** — As with floodplains, if a GMP is proposing certain new actions that will adversely affect a wetland, then a statement of findings needs to accompany the GMP, usually as an appendix. The 2006 *Great Sand Dunes NP GMP* is an example of a plan with a wetlands statement of findings. For details, see the *NPS Procedural Manual 77- 1: Wetlands Protection* (NPS 1998c).
- **Threatened and Endangered Species** — Under the Endangered Species Act if there is a potential that an action in a GMP may adversely affect a federally listed threatened or endangered species, or its habitat, then the planning team must prepare a biological assessment to accompany the GMP. The biological assessment can either be incorporated into the environmental consequences chapter or included as a separate appendix. The 2004 *Pictured Rocks NL GMP/EIS* has a biological assessment in the appendix. For details on preparing a biological assessment see the 1988 U.S. Fish and Wildlife Service's and National Marine Fisheries Service's *Endangered Species Consultation Handbook*. In addition to preparing a biological assessment, a biological opinion must be sought from the U.S. Fish and Wildlife Service if an action is likely to adversely affect a listed species.
- **Coastal Zone Consistency Determination** — Federal agency activities in or affecting a state's coastal zone (including the Great Lakes) must comply with section 307 of the Coastal Zone Management Act and its implementing regulations, which require that such federal activities be conducted in a manner consistent to the maximum extent practicable with the state's coastal management

4. LEGAL REQUIREMENTS FOR GMPs

program. If a park is within the coastal zone, a determination of consistency must be included in the GMP, usually in the consultation and coordination chapter. The state agency responsible for the coastal management program must concur with the consistency determination. (Note: Some state coastal zone management programs exclude national parks from this consistency determination.) The 1998 *Isle Royale NP GMP/EIS* is an example of how coastal zone consistency is addressed.

- **National Register Properties** — Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on properties that are listed on or eligible for listing on the National Register of Historic Places, and it provide the state or tribal historic preservation officer, as well as the Advisory Council on Historic Preservation, a reasonable opportunity to comment (see Chapter 10 for additional details). This requirement is usually addressed as an impact topic in the environmental consequences chapter and in the consultations and coordination chapter.
- **National Historic Landmarks** — When a specific undertaking is proposed in a GMP preferred alternative that could potentially adversely affect a national historic landmark or other nationally significant cultural resource, the planning team must engage in further consultation and take additional steps to minimize harm to those resources (see Chapter 10 for details). This requirement is usually addressed as an impact topic in the environmental consequences and in the consultations and coordination chapter.
- **Environmental Justice in Minority and Low Income Populations** — Executive Order 12898 directs federal agencies to assess whether their actions have disproportionately high and adverse human health or environmental effects on minority and low income populations and communities, including the equity of the distribution of the benefits and risks of the decision. This requirement is usually addressed as an impact topic in the environmental consequences.

5. PUBLIC INVOLVEMENT FOR GMPS

5.1 INTRODUCTION

This chapter provides an overview of a public involvement philosophy and strategy related to general management planning. Specifically, the information in this sourcebook is intended to provide planners with

- an understanding of the NPS requirements for public involvement in general management planning
- an understanding of NPS and DOI policy and expectations with regard to public involvement and participation that apply to the planning process
- an understanding of what a successful public involvement effort looks like
- a framework for designing a public involvement strategy for a GMP
- sources for finding additional useful information on public involvement

Each public involvement effort is unique and must be tailored to meet the specific circumstances of the park and its particular combination of publics. However, the approach for designing a public involvement strategy is straightforward and is applicable to all public involvement strategies. The public involvement process should be responsive to and inclusive of a park's public, staff, and partners, and it should address issues and opportunities. Although this chapter provides some principles and suggestions, the planning team must identify and make choices on who to involve in the planning process, at what level, and when to involve stakeholders, partners, and the general public. Ultimately, it is up to each planning team to develop a creative, iterative approach to engage and involve the public and other governmental agencies throughout the planning process.

The biggest problem has been, and will continue to be, convincing the public of the need for sound management, protection, and preservation. But I believe in complete openness before the public. If we fail to make Americans aware of the problems facing the national parks, and to involve them in choosing the right solutions to these problems, then we are failing in our responsibility as stewards of these public lands.

— Russ Dickenson, Director,
1980–1985

For additional information on public involvement, see the sources in Appendix D.

5.1.1 Key Terms

Several key terms are used throughout this chapter. People often have different ideas of what terms such as “the public” mean. To ensure that readers have the same understanding of terminology, the following definitions apply in this chapter:

- ***NPS staff and volunteers*** — All full- and part- time employees, including employees of park and regional offices, program centers (such as DSC and HFC), and WASO are staff. Volunteers in parks (VIPs) are also included in this category.

- **Partners** — Many individuals and organizations can be viewed as partners with the National Park Service, working with the agency in achieving mutual goals and objectives. However, for the purposes of this chapter the term is more narrowly defined to include other governmental entities (local, state, and federal) that work or potentially will work with the Park Service in decision-making (planning) processes to achieve common goals. Working together with these organizations allows the planning team to ensure that the park's mission is fulfilled and that the nation's conservation and recreation needs are better met.
- **Public** — The public refers to many different people and groups that interact with the National Park Service. It is important to realize that there is no single monolithic entity called "the public." The public varies with different NPS projects and can change during a park planning process — the public, their level of interest, and their comfort in feeling that their views have been considered may vary in each planning process or decision. *DO #75A* (NPS 2003c) defines the term to include

all of the individuals, organizations, and other entities who have an interest in or knowledge about, are served by, or serve in, the parks and programs administered by the Park Service. They include (but are not limited to) recreational user groups, the tourism industry, tribes and Alaska Natives, environmental leaders, members of the media, permittees, concessioners, property owners within a park, members of gateway communities, and special interest groups. The public also includes all visitors — domestic and international; those who come in person and those who access our information on the World Wide Web; those who do not actually visit, but who value, the national parks; and those who participate and collaborate with the Park Service on a longer- term basis.

Important members of the public include elected officials; federal, tribal, state, and local government agencies; interested private and nonprofit organizations; current and potential park visitors; traditional park users and others with special cultural ties to the park; scientists and scholars; and park neighbors.

- **Public involvement** — As defined in *DO #75A*, public involvement (also called public participation) is the active involvement of the public in NPS planning and decision- making processes. Public involvement is a process that occurs on a continuum that ranges from providing information and building awareness, to partnering in decision making. The NPS role is to provide opportunities for the public to be involved in meaningful ways; to listen to their concerns, values, and preferences; and to consider these in shaping NPS decisions and policies.
- **Stakeholders** — The term stakeholder refers to a subset of the general public. Stakeholders can be individuals, groups, or other entities that have a stake or strong financial, legal, or other interest in decisions concerning park resources and values. For example, stakeholders may include recreational user groups, permittees, and concessioners. In the broadest sense, all Americans are stakeholders in the national parks. Stakeholders can be internal (e.g., people or organizational units inside the agency, including regional and WASO staff) as well

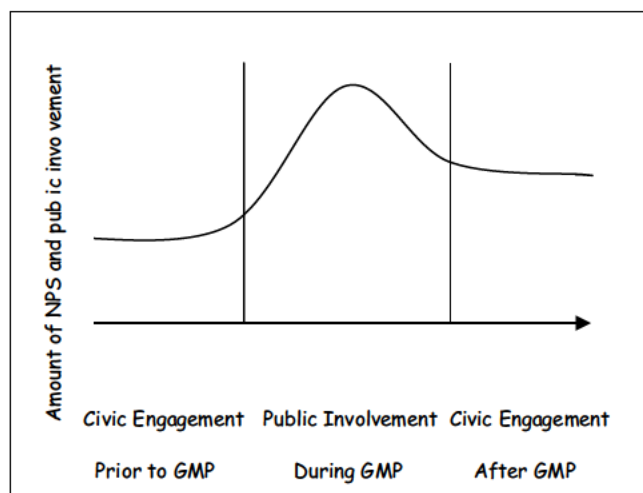
as external. Another term for stakeholders is “communities of place and interest.”

5.1.2 Civic Engagement and GMP Public Involvement

In the past many parks were insular and had little rapport or interaction with communities or governmental entities adjacent to their entrances and boundaries. Park management decisions were often based on the needs of resources and visitor experiences within the park, with little consideration given to regional and/or national issues or concerns. This worked when parks were, in fact, isolated and remote. Today parks are no longer the “islands” they once were. As our population has grown and gateway communities have multiplied, parks and their neighbors increasingly share the same issues, such as water and air quality, viewsheds, traffic congestion, and the quality of life within and beyond parks. Today we recognize that parks — and their neighboring agencies, communities, and tribes — are inextricably intertwined in a larger social, political, economic, cultural, and natural environment.

The National Park Service is committed to pursuing civic engagement — a “continuous, dynamic conversation with the public on many levels that reinforces the commitment of both the Park Service and the public to the preservation of heritage resources, both cultural and natural, and strengthens public understanding of the full meaning and contemporary relevance of these resources” (NPS 2006a). Civic engagement is the philosophy that guides NPS activities, including planning, across all functional lines at every level of the organization. It is founded on the central principle that the preservation of the nation’s heritage resources relies on continued collaborative relationships between the Park Service and American society. These relationships encompass significant and meaningful public involvement in NPS operations, programming, planning, and decision making. Civic engagement practices acknowledge that these relationships must extend to all communities that comprise America, especially those people who have felt little or no connection with the nation’s heritage resources or system of parks, or who have felt excluded from enjoying the parks. At its heart, civic engagement is about inclusiveness.

GMP public involvement, as prescribed by NEPA, is a subset of the NPS approach to civic engagement in park management (see chart). Parks are expected to have an ongoing relationship with the public that spikes during the GMP public involvement effort. Experience has shown that once people have been involved in park planning, their level of interest in that park continues to be higher than before the GMP effort.



The GMP public involvement process offers an opportunity to connect with the broad spectrum of American society (both near and far) and to provide an open door for people to discover and appreciate the personal meaning and relevance of heritage resources. It allows NPS employees to learn about the public's ideas, concerns, views, values, and perceptions regarding a park.

A GMP planning process is also an opportunity to build or enhance and enrich the existing relationships and partnerships that parks already have with their public and private sector neighbors, and with their national constituencies. Building these relationships and inviting outside interests to participate in the planning process can make it “their” planning process and the plan “their” plan — both of which increase the chances for a successful plan and positive long- term working relationship between the park and outside entities.

In summary, GMP planning provides an excellent opportunity to explore and “jump start” relationships with the public where they are absent and welcome all segments of the American public to participate in the life of the parks.

5.2 THE NEED FOR PUBLIC INVOLVEMENT IN GMPs

5.2.1 Legal and Policy Mandates

The National Park Service is required by numerous laws and policies to involve the public in planning. The Administrative Procedure Act requires agencies to give the public an opportunity to comment on major policy decisions that will affect them. NEPA and the Wilderness Act also have specific public involvement requirements. *NPS Management Policies 2006* and *DO #75A* call for public involvement in NPS plans and programs. The *NPS Management Policies 2006* (sec. 2.3.1.5 of) state the following:

Members of the public — including existing and potential visitors, park neighbors, American Indians, other people with traditional cultural ties to land within the park, concessioners, cooperating associations, other partners, scientists and scholars, and other government agencies — will be encouraged to participate during the preparation of a GMP and the associated environmental analysis. Public involvement strategies, practices, and activities will be developed and conducted within the framework of civic engagement. (Whereas civic engagement is the philosophy of welcoming people into the parks and building relationships around a shared stewardship mission, public involvement — also called public participation — is the specific, active involvement of the public in NPS planning and other decision- making processes.) Public involvement will meet NEPA and other federal requirements for

- identifying the scope of issues,
- developing the range of alternatives considered in planning,
- reviewing the analysis of potential impacts, and
- disclosing the rationale for decisions about the park's future.

The Park Service will use the public involvement process to

- share information about legal and policy mandates, the planning process, issues, and proposed management directions,
- learn about the values placed by other people and groups on the same resources and visitor experiences; and

5.2. The Need for Public Involvement in GMPs

- build support for implementing the plan among local interests, visitors, Congress, and others at the regional and national levels.

The need for parks to work more closely within larger contexts is repeatedly underscored in the NPS *Management Policies 2006* and several director's orders. Parks are part of a larger community of interests that can include neighboring communities, a variety of special interest groups, or other government entities — and it is critical to develop day-to-day working relationships whenever possible. The NPS *Management Policies 2006* specifically addresses collaborative planning and the need to work with gateway communities, other agencies, and tribes (see “External Threats and Opportunities,” sec. 1.5; “Partnerships,” sec. 1.9; “Cooperative Planning,” sec. 2.3.1.9; “Addressing Threats from External Sources,” sec. 3.4; “Partnerships,” sec. 4.1.4; and “Consultation,” sec. 5.2.1).

Executive Order 13352, “Facilitation of Cooperative Conservation,” ensures that the Departments of the Interior, Agriculture, Commerce, and Defense, and also the Environmental Protection Agency, will implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate inclusion of local participation in federal decision making, in accordance with their respective agency missions, policies, and regulations. The heads of each agency are required to carry out the programs, projects, and activities of the agencies in a manner that facilitates cooperative conservation, takes appropriate account of and respects the interests of persons with ownership or other legally recognized interests in land and other natural resources, properly accommodates local participation in federal decision making, and provides that the programs, projects, and activities are consistent with protecting public health and safety.

5.2.2 Other Reasons for and Benefits of Public Involvement in General Management Planning

Involving the public in general management planning is simply “good government” — the very basis of our system of government with its citizen oversight and mechanisms for checks and balances. The travel and tourism industry, recreational equipment manufacturers, historic preservation and environmental groups, park visitors, and many others have a strong interest in the way parks are managed. Every decision that the National Park Service makes affects people, some more than others, some beneficially and some, from their viewpoint, adversely. The Park Service often has to make controversial decisions, which should not be made by technical experts alone. People who are affected by NPS decisions expect, and have a right, to be informed of what is about to happen in a park, and to expect that their opinions, values, and needs will be heard and considered by the Park Service. As noted in *DO #75A*, the public also has a right to know about the challenges that confront the Park Service.

Encouraging public input can help the agency make more informed and better decisions, policies, and plans. Planners and park employees never have all the information or answers in developing a plan. Citizens and groups can provide new information, identify issues that planners were not aware of, and provide fresh insights into a park's resources, visitors, and how they interrelate. Citizens can provide new creative approaches to problem solving and planning, expanding the

range of management alternatives. Local residents are most qualified to tell planners about their own needs and experiences of living in proximity to a park. Their familiarity provides useful perspectives and a better understanding and appreciation of local circumstances. Likewise, involving regional and national groups can expand the understanding of park issues and improve the larger context for assessing the impacts of decisions.

Other benefits of effective public participation include sharing information and resources; raising and addressing controversy; minimizing or avoiding potential conflicts; improving the understanding of NPS missions, mandates, and goals; providing opportunities for NPS managers to build on and link to other agencies' programs to maximize effectiveness (and vice versa); reducing the potential for duplication of effort; maximizing the leverage of resources to reach the public; and minimizing the potential for contradictory or conflicting activities among the Park Service and other agencies and partners.

Finally, plans that are prepared with public involvement are more likely to be accepted and supported by people who can see that they have an authentic role in shaping the plan. Involving the public can show citizens that NPS staff are willing to listen to and where appropriate address their concerns, which can establish the foundation for building improved understanding, relationships, and support for actions being proposed. If people or groups do not feel they have been heard in a planning process, risks increase for opposition to a project, tactics to delay a decision, and even lawsuits, which can significantly increase costs and workloads of NPS employees.

In summary, GMPs inform the American public about the future management direction of a park. Public involvement in the GMP process allows for direct education and dialogue with NPS employees about the development of the plan. A GMP also acts as a springboard for developing long-term public relationships that are critical not only to implementing the plan, but to ensuring the overall protection and preservation of the park.

5.3 UNDERSTANDING EFFECTIVE PUBLIC INVOLVEMENT

5.3.1 General Principles

When people talk about successful public participation programs, they are talking about programs where the techniques matched the purpose of the program, reached the interested stakeholders, and resulted in a clear link between the public participation process and the decision-making process.

Effective public participation programs share the following characteristics:

- They have management commitment and a clearly defined expectation for what they hope to accomplish with the public.
- They are well integrated into the decision-making process.
- They target those segments of the public most likely to see themselves as impacted by the decision (stakeholders).

5.3. Understanding Effective Public Involvement

- They involve interested stakeholders in every step of decision making, not just the final stage.
- They make sure all voices are heard and make efforts to find people who may not have been traditionally involved (They provide alternative levels of participation based on the public's level of interest and the diversity of those participating).
- They provide genuine opportunities for public ideas, opinions, and concerns to influence the decision.
- They take into account the participation of internal stakeholders, as well as external stakeholders.

It takes much thought and planning to accomplish all of these points. That is why there is value in developing an integrated, systematic approach to public participation in each GMP planning process that is tailored for each situation.

Public involvement goes beyond simply informing or educating people about the issues and timetables; providing opportunities for people to comment; or conducting public relations activities. NPS planners and park staff need to provide opportunities for the public to contribute to decisions and to respond to their concerns, views, values, and ideas about those issues that affect the environment, peoples' lives, and the communities in which they live. The following public involvement principles help focus the development of a systematic approach to public participation:

- *Make the process timely* — Allow enough time for the public to participate fully, with enough advance notice for all activities and crucial points in the process.
- *Make the process reasonable* — Make sure the public is able to participate in venues where they feel comfortable, at minimum cost and commitment of time, while meeting the public involvement objectives.
- *Emphasize fairness* — Participants should agree that the process is fair, that all views offered are considered. The goal is to reach a decision that balances the diverse needs and wants of various groups and organizations. While planners will likely not incorporate every change recommended by the public, they should give serious consideration to these suggestions and respond by explaining why they agree or disagree.
- *Practice openness* — Public involvement requires an informed public. To participate effectively, the public must have access to accurate and timely information. Welcome and facilitate dialogue among all who wish to participate. Make sure that information provided to the public (documents, etc.) is accessible to all and is written so that people can easily understand it.
- *Start public involvement early and make it continuous* — Public involvement is based on the belief that federal planners cannot communicate too much with the public. The earlier planners begin the communication process, the better. Involve the public from beginning to end, and build relationships over the long term.

- *Make it tangible* — Clearly demonstrate the results of the public’s input so that the public understands how their involvement affected the decision or outcome.

5.3.2 Levels of Involvement

Typically GMP teams are composed of designated park staff, professional planners from the regional office and/or DSC, and private consultants, if needed. These teams consult and coordinate with a great variety of stakeholders. Different stakeholders may have missions, goals, interests, and activities that complement those of a park. Other times, stakeholders’ missions, goals, and activities may be in conflict with those of other groups or with National Park Service. It is important to understand these similarities and differences in order to resolve potential conflicts and to support the doctrine of “no surprises.” When everyone knows and understands what all of the players need to accomplish, collaboration on how to meet those needs in mutually compatible ways can begin.

There are several different levels of public involvement, ranging from active one-on-one encounters to more general information sharing. The different levels generally relate to a stakeholder’s degree of interest and ability to influence park management and the planning process. The following are general guidelines for involving various categories of stakeholders early in the planning process, recognizing that any particular stakeholder may express a different degree of interest or influence that warrants a different level of involvement as the planning progresses.

Elected Officials: One-on-One Briefings

The congressional delegation and the state legislators (or their staff) are usually briefed on the GMP process in one-on-one meetings. Likewise, affected local elected officials are briefed and asked to voice their ideas, issues, and concerns. Briefings for elected officials precede notification of other stakeholders, including the public. Attempts are made to meet individually with national and state elected officials, ideally by the park manager. Park staff or members of the GMP team may brief local officials.

Other Government Entities: Partners’ Meetings

Other governmental entities with a direct interest in the GMP/EIS (e.g., townships, cities, counties, regional councils, state, tribes, and other federal agencies) are usually involved at regular milestone planning sessions. These include an introductory group session that the GMP team coordinates, in which each entity shares its organization’s mission, roles, and interest in the region and the park. These sessions serve to scope the project with these stakeholders and to elicit ideas, issues, and concerns from them. In subsequent sessions the entities may identify desired conditions for resources and visitor experiences, how those conditions fit into the regional ecosystem, and alternatives for achieving them. At a minimum, the governmental entities are usually involved in sessions at scoping, preliminary alternatives development, and alternatives analysis, including the selection of a preferred alternative. This level of involvement, which includes advising the federal agencies, must be limited to

governmental agencies and Native American tribes to conform to Federal Advisory Committee Act (FACA) requirements. For more information on FACA see Appendix D.1 and *National Park Service Guide to the Federal Advisory Committee Act* (NPS 2005d).

Private Organizations and Individuals: Make Presentations at Regularly Scheduled Meetings or Schedule One-on-One Meetings

Groups in this category (e.g., adjacent landowners, affected businesses and agricultural groups, nongovernmental organizations, chambers of commerce, environmental organizations, service clubs, user groups) may not meet more than once as a group convened by the National Park Service due to guidance in FACA. Rather, GMP or park staff often ask to be placed on the agendas of the regularly scheduled meetings of these groups to tell them about the GMP planning process and to elicit comments and concerns. Several categories of private sector interests may be convened as one-time focus groups in order to inform them of the GMP process, to conduct a use survey, and to listen to issues that they might have regarding management of the park. Sessions focused on select constituencies, such as adjacent homeowners, may be attended by the team when the meeting is convened by another host entity, such as the county or the constituent group.

General Public: Multi-Venue Information Sharing

Three series of public workshops/meetings are usually coordinated by the GMP team. Milestones highlighted in the workshops include scoping, development of preliminary alternatives, and completion of the draft GMP/EIS. Planning teams usually hold public meetings at the scoping and draft GMP/EIS stages. It is also a good idea to bring the public back into the process at the preliminary alternatives stage because it provides a chance for the team and public to interact in the middle of the long period of time between scoping and the publication of the draft document. It also allows the team to check in with the public before a lot of time is invested in completing the impact analysis and preparing the draft document. This contact gives important feedback on options that are being considered by the planning team but that might be unacceptable to the public, as well as any additional options that should be included. This information is valuable when the planning team prepares to develop a preferred alternative through the CBA process.

Public workshops should be designed to accommodate many different styles and personalities of communication. All comments received from any of the comment opportunities become part of the administrative record. The managers of the park should usually be available for questions and discussion during the workshops. (See Appendix D.5 for tips on holding public open houses.) The GMP team should consider public outreach beyond newsletters. A useful technique is to scan the local and regional constituencies to find out how they receive and share information, and then craft custom communication methods that fit with those existing methods. Another mode of contact for the general public is a series of briefings for groups or individuals directly affected by the plan. Park staff and/or the planning team staff may present information during regularly scheduled meetings of interested groups, providing the latest information about the process, and receiving comments and

ideas. The NPS PEPC interactive website can be used to transmit, receive, and process information electronically.

Interior Department and NPS Directorate: Briefings

The planning team should guarantee “no surprises” at all steps. Top levels of the agency and the department are usually briefed by the team, the region, and the park staff at critical decision and public contact points. The WASO program manager should be invited to these meetings. A briefing statement should be forwarded to PPSS two days before the scheduled briefing to ensure that the planning manager and officials to be briefed have some background on the topics to be discussed.

5.4 PREPARING A PUBLIC INVOLVEMENT STRATEGY

The key planning phases for a GMP usually include the preparation of the foundation statement; scoping; development of alternatives; completion of the draft plan; completion of the final plan (for an EIS); and issuance of a record of decision (ROD) for an EIS, or finding of no significant impact (FONSI) for an EA. From a public involvement standpoint, the key planning phases are scoping, development of alternatives, and publication of the draft plan. From the planning team’s viewpoint, public input is most helpful at the scoping and alternatives development stages; at the draft plan stage public input tends more often to be voting for an alternative, which is not as helpful. In general, the public is involved to a far lesser degree in the other planning phases with the possible exception of the development of the foundation statement (which may involve selected experts and key stakeholders) because they are being notified of the outcome of the other planning phases.

When developing a public involvement strategy, the planning team must clearly articulate the purpose of involving the public at each planning phase and examine the information exchange needed between the National Park Service and the public before selecting a public involvement technique. This ensures that the technique selected supports the identified purpose. This systematic planning approach improves the likelihood of developing a satisfying and successful public involvement effort for everyone involved.

Two general principles should be considered in developing a public involvement strategy:

- Encourage the participation of the superintendent in developing the strategy. It is critical that the superintendent be involved in public involvement planning. If the superintendent cannot participate, the planning team needs to know at what points the superintendent and regional director want to be briefed on the results of the public involvement effort, and if there are any constraints that the superintendent believes need to be placed on the process. Ideally, the superintendent should also participate in the public outreach activities as much as possible, even if only as a listener, so that he or she experiences the breadth and intensity of public concerns and ideas in person.
- Align the public involvement schedule with the rest of the planning process. The most frequent complaints about public participation programs are (1) the

public is involved too late in the process, and (2) there is no clear connection between the public participation process and the decision being made. To be effective, public participation needs to be integrated into the planning process. This means that public involvement activities must be carefully scheduled. If public ideas are going to influence decisions during the planning process, the public must be given information and their views obtained in a timely manner. Using the framework to develop a public involvement process for each phase in the planning project can help mesh the public involvement schedule with the rest of the project schedule.

The public involvement schedule can have various impacts. For example, if the timeframe is too short, the public may get the message that the National Park Service is not serious about allowing enough time for genuine participation. This can undermine the credibility of the public participation process. The schedule may also impact which public participation techniques can be used. There may be techniques planners would like to use that simply cannot be completed in the time available. This can force a switch to techniques that may not be as effective but can be completed in the time available.

Appendix D.2 provides a four- part template for preparing a public involvement strategy that covers the key phases in preparing a GMP/EIS or EA.

5.5 EVALUATION OF PUBLIC INVOLVEMENT EFFORTS

Public involvement is an ongoing process. It does not stop once a planning phase is completed or a plan is finished. Indeed, *DO #75A* requires public involvement at all levels in the National Park Service and within all program areas where “1) the public has an identifiable interest or is likely to be interested, 2) there may be applicable knowledge or expertise likely to be available only through public consultation, or 3) there are complex or potentially controversial issues.”

To ensure that a public involvement effort is effective, it should be periodically evaluated. Public interest can dramatically increase or fade away during a planning process. Following are some indicators that a public participation effort is working well:

- Individuals and groups are asking new questions rather than asking the same questions over and over.
- Individuals and groups are ready for the next phase and do not raise concerns about a lack of information.
- The appropriate NPS contact person or team is handling inquiries in a timely manner.
- Most of the public participation time is devoted to communication or information sharing between stakeholders and the National Park Service rather than addressing breakdowns or miscommunication.
- The channels of communication are well- defined and open.
- Interested parties are providing informed comments on the project.

5. PUBLIC INVOLVEMENT FOR GMPs

- People are often bringing their concerns to the National Park Service rather than taking them directly to the media or elected officials.

If these conditions are not being achieved, then the team needs to reassess its techniques and determine what changes will improve the public participation effort. The following problems may need to be addressed:

- Public participation efforts may not be reaching the right target audiences in effective ways.
- The public may not have adequate access to information, may not understand the information, or may need more detailed information.
- Stakeholders may not understand how to effectively participate in the process; or they may feel that the planning or park staff are not listening to them.

The best way to evaluate the success of a public involvement effort is to ask people what is and is not working.

PART TWO: DEVELOPING THE GMP

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6. FOUNDATION STATEMENTS

6.1 FOUNDATION STATEMENTS: WHAT THEY ARE; WHERE THEY FIT

Every park needs a formal statement of its core mission to provide basic guidance for all the decisions to be made about the park—a “foundation for planning and management.” Increasing emphasis on government accountability and restrained federal spending make it imperative that all park stakeholders understand the park’s purpose, significance, resources and values, primary interpretive themes, special mandates, conditions of the fundamental resources and values, and legal and policy requirements. This will help ensure that the most important objectives are accomplished before less important tasks not directly related to the park’s mission are undertaken.

The primary advantage of developing and adopting a foundation statement is the opportunity to integrate and coordinate all kinds and levels of planning and decision making from a single, shared understanding of what is most important about the park. A well- prepared foundation statement can accomplish the following:

- help ensure the park’s most important objectives are accomplished or addressed before turning to items that are also important but not critical to achieving the park purpose and maintaining park significance
- provide a solid footing to participants for beginning a GMP process, including the legislative underpinnings of purpose and significance, the constraints of special mandates, how primary interpretive themes express the most important stories, and an understanding of fundamental resources and values
- better focus the purpose and need for a GMP
- ensure consistency in developing a GMP, strategic plan, annual work plans, implementation plans, core operations analysis, and all other park planning documents
- provide an understanding of the park’s fundamental resources and values that can be used to anchor the GMP alternatives as the planning team examines various ways to manage and maintain park significance
- help determine if boundary changes need to be considered
- identify additional data and monitoring needs for use in management and planning decision making
- may indicate the need in some instances for a different type of plan than a GMP (i.e., an implementation plan or a program plan) or a combination of plans that would better and more efficiently meet the park’s needs

If you have built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them.

—Henry David Thoreau

6. FOUNDATION STATEMENTS

The foundation statement is generally developed (or reviewed and expanded or revised, if appropriate) early in the general management planning process, as part of the public and agency scoping and data collection. Once a park has developed a complete foundation statement, it should remain relatively stable from one GMP cycle to the next, although new scientific and scholarly information may require expansion and revision to reflect the most current knowledge about what is most important about the park. General management planning is the most appropriate context for developing or reviewing a foundation statement because of the comprehensive public involvement and NEPA analysis that occurs. The foundation statement is reviewed by the park and the regional office. Under certain circumstances the foundation statement or elements of it also could be reviewed by the public (or stakeholders) before it is formally adopted as part of the GMP. (In addition, if a foundation statement is part of the GMP, it will be vetted through the agency and public review process.)

Parks that do not have current GMPs and do not expect to undertake general management planning in the foreseeable future will still benefit from developing a stand-alone foundation statement. Developing such a statement will clarify what is most important about the park and provide a strong framework for future planning efforts and decision making. Stand-alone foundation statements are not NEPA documents because they are not decision-making documents. However, care must be taken to ensure that no elements of a stand-alone foundation statement go beyond an analysis and interpretation of decisions that have already been made through law or policy. Any subsequent management decisions about priorities or balances among potentially overlapping laws and policies, or competing resources and values, require NEPA analysis.

In the process of developing foundation statements, it is desirable to include an interdisciplinary planning team that includes park staff. If appropriate, recognized experts, groups with strong cultural ties, neighboring agencies, partners, and other key stakeholders may also be enlisted to assist the planning team. However, the foundation statement must not make recommendations or decisions that would violate the Federal Advisory Committee Act (FACA) or NEPA.

A park should never have more than one foundation statement. If the statement is expanded or revised, plans and decisions should also be reviewed, and revised if appropriate, to maintain consistency with the underpinning foundation. Again, general management planning is the most appropriate process for reviewing and possibly revising a park's foundation statement.

6.1.1 Elements of the Foundation Statement

The foundation statement, as identified in the *Park Planning Program Standards*, has the following elements at a minimum:

- purpose of the park unit
- significance of the park unit
- primary interpretive themes for the park unit

6.1. Foundation Statements: What They Are; Where They Fit

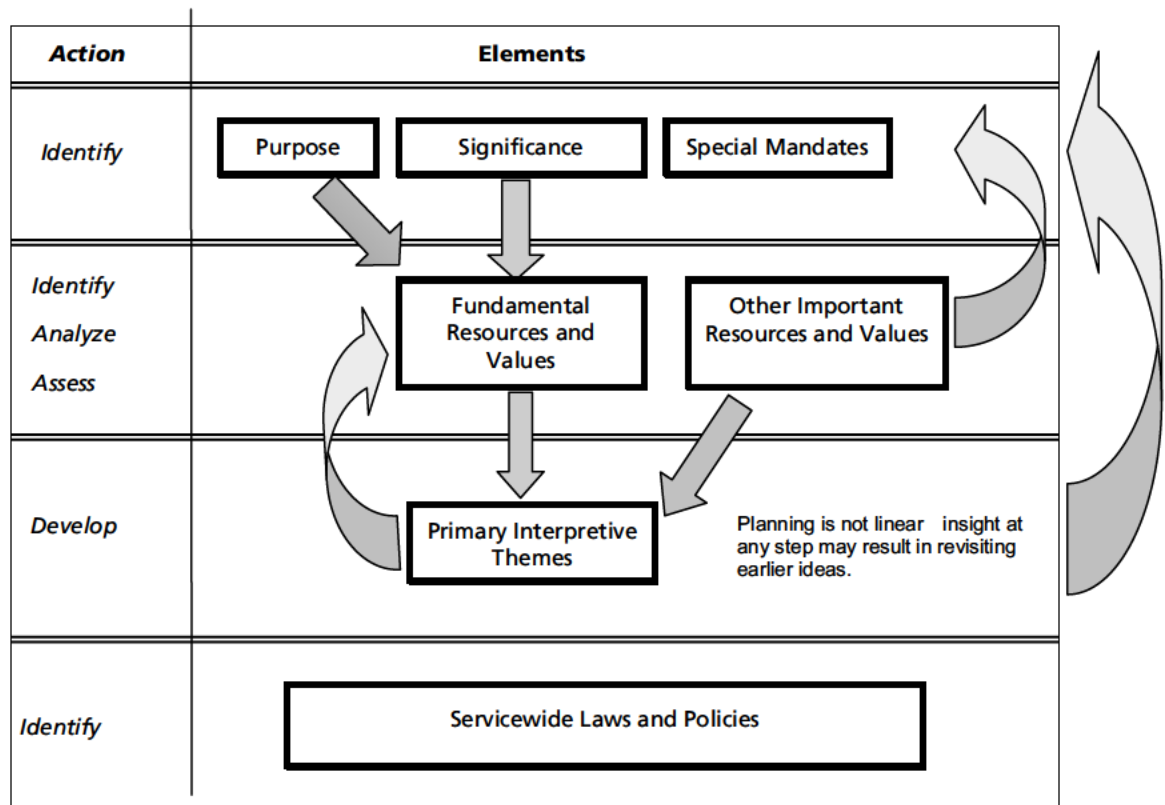
- special mandates for the park unit
- summary of NPS legal and policy requirements
- fundamental and other important resources and values
- analysis of fundamental and other important resources and values
- identification of policy- level issues

Other elements that may be included in a foundation statement are

- existing planning guidance
- planning needs
- data and analysis needs
- general law and policy guidance
- management directions within law and policy

The process identified in the following diagram and in the organization of this section includes all of the elements in the *Park Planning Program Standards*, but it has been reorganized to provide a logical flow that would likely be used by a planning team to build a foundation statement.

FIGURE 6.1: DEVELOPMENT PROCESS FOR A FOUNDATION STATEMENT



Many of the elements of a foundation statement may look familiar, such as park purpose, significance, primary interpretive themes, special mandates, and the summary of legal and policy requirements. What's new is the identification and analysis of fundamental resources and values. These elements are discussed in more detail later in this chapter. Also new is the identification of any other resources and values that are determined to be important considerations during general management planning even though they are not related to the park's purpose. Fundamental and other important resources and values provide a valuable focus throughout the planning process and the plan — they are the subjects of data collection, issues, area-specific desired conditions, impact assessments, and value analyses. How the elements of the foundation statement are carried forward into the development of alternatives is described in Chapter 7.

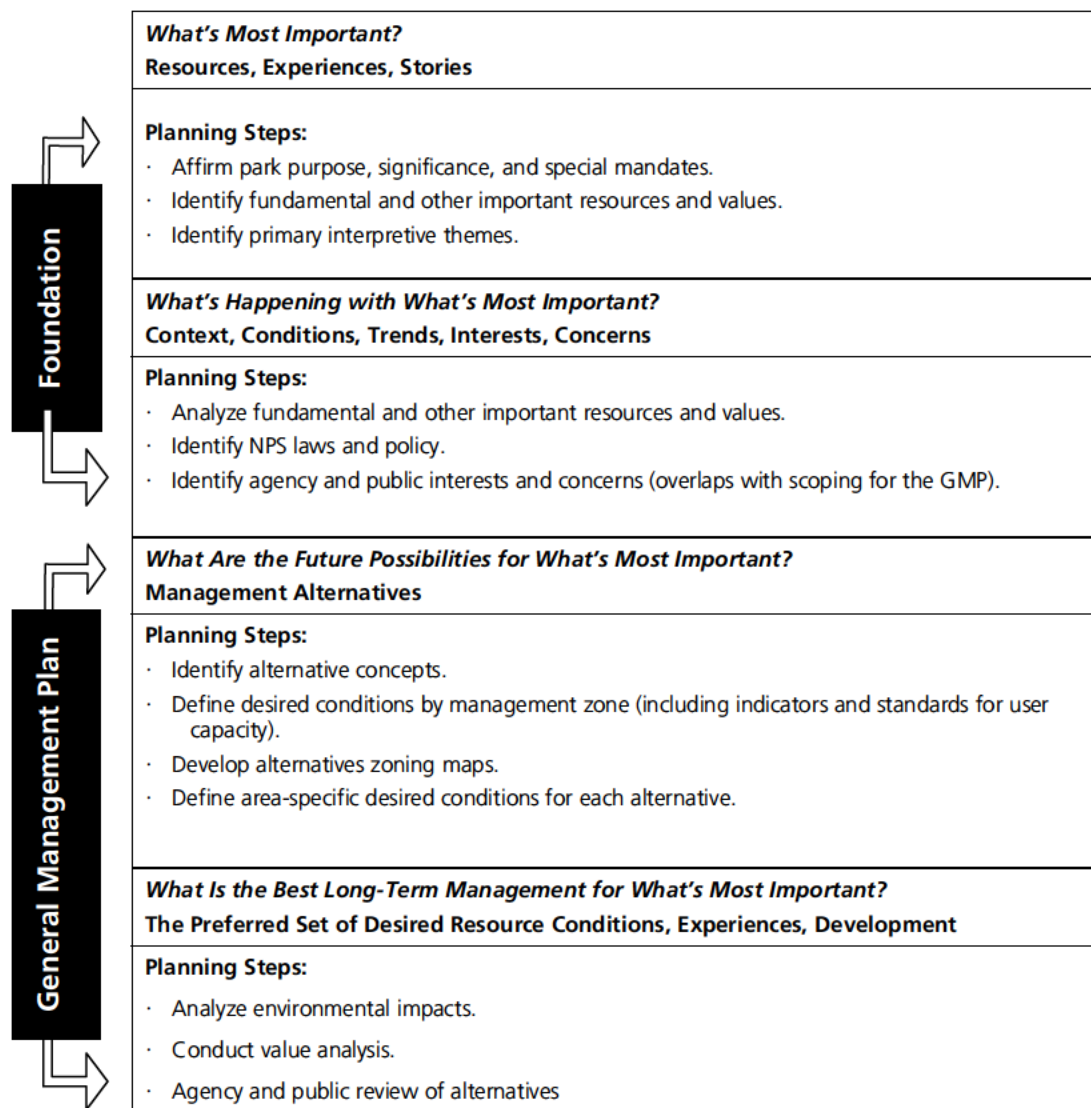
Examples of various elements of foundation statements are included in Appendix E. Portions of several foundation statements, including the identification and analysis of fundamental and other important resources and values, are included in Appendix E.1. It is important to note that the development of a foundation statement is an evolving process. Thus, there are some differences in the approaches taken by the foundation statements in the appendix.

Parks that have recently completed foundation statements include Sagamore Hills NHS, Governors Island NM, Effigy Mounds NM, Grand Teton NP, Petrified Forest NP, Moccasin Bend National Archeological District in Chickamauga and Chattanooga NMP, City of Rocks NR, Klondike Gold Rush NHP, and North Cascades NP. (Several of these are posted on the Intermountain Region's planning website at <http://inside.nps.gov/regions/custommenu.cfm?lv=3&rgn=1004&id=5657>.)

6.1.2 Role of Foundation Statements in the General Management Planning Process

Foundation statements contribute throughout the general management planning process, as shown in Figure 6.2. The information in a foundation statement largely focuses on answering two questions: "What's most important?" and "What's happening with what's most important?" The answers in turn influence the issues addressed in a GMP, the impact topics, the development of the alternatives, the description of the affected environment, the analysis of the environmental consequences, and the selection of the preferred alternative.

It is important to note that the identification of issues by the public (gathered through "scoping") is a different step from the development of a foundation statement. The analysis included in a foundation statement can help identify and clarify issues that a GMP needs to address, as well as focus the scope of a GMP. But some important GMP issues raised by the public may not be included in a foundation statement, and not all issues identified in a foundation statement are GMP issues. Scoping issues plus the analysis included in a foundation statement need to be considered by a planning team in developing a GMP.

FIGURE 6.2: ROLE OF FOUNDATION STATEMENTS IN THE GMP PLANNING PROCESS

6.2 PURPOSE, SIGNIFICANCE, AND SPECIAL MANDATES

6.2.1 General Considerations

A park's purpose, significance, and special mandates are derived from and bounded by law and policy. Sometimes, the park's enabling legislation or executive order does not offer clear direction about a particular park's purpose and significance. If that is the case, these documents will require interpretation so that these elements can be expressed in a way that is broadly understood by all stakeholders. However, it is important to remember that new decisions are not being made through this process;

6. FOUNDATION STATEMENTS

the park purpose and significance have usually been debated on the floor of Congress. This information only needs to be interpreted, expressed, and explained.

Most parks have purpose and significance statements that were developed as part of their strategic planning. As a starting point, the most current versions of these elements should be reviewed. If they meet the program standards, they will only need to be reaffirmed. If they do not fully meet all or some of the standards, they should be strengthened. To help ensure consistency in planning and management, and in communications with the public, it is important that each park have a single set of purpose and significance statements that it can refer to over a long period of time.

It is usually most effective to interpret and document the park's purpose and significance in a relatively small, interdisciplinary, facilitated group of park staff in consultation with various legal experts, scientists and scholars, and peer reviewers, as considered appropriate. All stakeholders should have the chance to review the park's statements of purpose and significance, and their comments should be fully considered, either as part of the park's ongoing civic engagement or as part of the public involvement strategy for the GMP. However, the purpose of the park should not be opened, or appear to be opened, to any public debate or revision that goes beyond an interpretation of the intent of Congress or the president in establishing the park.

If the enabling legislation or presidential proclamation establishing the park lacks specificity about purpose and significance, the planning team can also look to the overall mission of the National Park Service for guidance. The purpose of most national parks is to conserve and make available for public enjoyment some aspect(s) of the nation's natural and/or cultural heritage that (1) is an outstanding example of a particular type of resource, (2) possesses exceptional value or quality for illustrating or interpreting the natural and cultural themes of the nation's heritage, (3) offers superlative opportunities for public enjoyment or scientific study, and (4) retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource. Statements of a park's significance usually include these values.

Additional guidance for identifying the park's purpose, significance, and special mandates is provided below.

6.2.2 Identifying a Park's Purpose

Definition and Program Standards

Definition	Program Standards
The specific reason(s) for establishing a particular park	<p>Statements of the park's purpose</p> <ul style="list-style-type: none"> are grounded in a thorough analysis of the park's legislation (or executive order) and legislative history, including studies completed prior to authorization go beyond a restatement of the law to document shared assumptions about what the law means in terms specific to the park may be changed only by Congress (although assumptions about how best to interpret establishing legislation and legislative history may be updated through the park's foundation statement or GMP)

Suggested Tools and Methodology for Identifying a Park's Purpose

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Look in the park's establishing legislation and the legislative history for the reasons that a particular park	<p>While the mission of the National Park Service is quite broad, more specific reasons for the creation of a particular park are usually stated in the park's establishing legislation. Often, these reasons are vague and open to interpretation, and the purpose statement needs to do more than simply restate the law. A purpose statement needs to examine and document the National Park Service's assumptions and the best relevant, current scholarship about what the law really means, so that those assumptions can be understood by others. Information about the specific reasons for establishing a particular park can often be found in the park's legislative history or its historical record.</p> <p>When examining legislation for park purpose, do not assume that because something is mentioned in the legislation that it is necessarily part of the purpose for which the unit was established. There may be an exception or legal requirement to continue a traditional use, such as hunting, grazing, or oil and gas extraction, even though the purpose of the park might be the preservation of natural systems and processes. Requirements that are not related to the reason a park was created are treated as "special mandates." The distinction is important because it recognizes the preeminence of the park's purpose.</p>
<input checked="" type="checkbox"/> Make sure the purpose statement is specific to the particular park.	<p>Teams may find it useful to ask this question: If the purpose statement for this park was swept into a bin of purpose statements for parks throughout the national park system, would it be easily recognizable as the purpose statement for this particular park?</p> <p>The statement of purpose may be a single inclusive statement, or a set of statements. Generally, do not develop more than three to five purpose statements.</p>

TABLE 6.1: EXAMPLES OF PURPOSE STATEMENTS

Weak	Stronger
Preserve the natural and cultural resources of the Big Dry Desert.	Perpetuate for future generations a representative sample of the natural and cultural resources of the Big Dry Desert.
Protect sites and remains associated with the American Colonial Period.	Preserve (for research) and interpret (for education and commemoration) landscapes, archeological resources, and buildings associated with the political, social, and economic processes that shaped the British North American colonies from 1607 to 1781.

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6.2.3 Identifying a Park's Significance**Definition and Program Standards**

Definition	Program Standards
Statements of why, within a national, regional, and systemwide context, the park's resources and values are important enough to warrant national park designation	<p>Statements of the park's significance</p> <ul style="list-style-type: none"> · describe why an area is important within a global, national, regional, and systemwide context · are directly linked to the purpose of the park · are substantiated by data or consensus · reflect the most current scientific or scholarly inquiry and cultural perceptions, which may have changed since the park's establishment

Suggested Tools and Methodology for Identifying a Park's Significance

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Consult with technical experts and with culturally associated groups.	Rarely are the park staff the only experts. Non-NPS experts often have important information and skills, and their participation is an essential and cost-effective means of improving planning. Outside expertise is particularly helpful in determining park significance because it can provide perspective. Groups who may have particularly strong cultural ties to a place or places inside the park, such as Indian tribes, survivors of a historic event, or residents of an inhaling community, have unique and important perspectives on the park's cultural significance. The information base must be broad enough to support statements of relative significance within a regional, national, and global context.
<input checked="" type="checkbox"/> Refer to reports that address significance.	A park's legislative history may contain information about why it is considered significant. Some parks have a special resource study, completed before the park was established, that should contain a discussion of significance. If the park or its resources have been nominated as a national historic or national natural landmark, world heritage site, or biosphere reserve, the background reports for these nominations should contain information about significance.
<input checked="" type="checkbox"/> Consider new scientific discoveries and scholarship.	Although a park's legislated purpose normally remains constant over the long term, the park's significance related to that purpose may change as a result of major new scientific discoveries or scholarship. For example, it may be appropriate to update the significance of a Civil War battlefield park to include the importance of the battle in stopping slavery or other aspects of the war's causes and consequences. (The park's purpose would remain unchanged — to preserve the battlefield and/or to commemorate the battle, for example — but its significance related to that purpose would be expanded.)

6.2. Purpose, Significance, and Special Mandates

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Focus the significance statements on why the park's resources and values are included in the national park system.	<p>Rather than simply listing important resources and values, describe what attributes make the park important enough to be included in the national park system.</p> <p>Consider the international, national, and regional context of the park's resources and values. Using language such as "the largest collection," "the most diverse representation," "the most authentic," "the oldest," and "the best remaining example," where appropriate, will help define the significance of park resources compared to other resources in the region or the country. Try to avoid using the word "unique."</p> <p>If the participants want to list resources rather than describe them, it may be useful to first develop a list of resources, and then describe what about those resources contributes to the park's significance as a unit of the national park system. Listing would also be helpful in the next step of identifying fundamental resources and values.</p>
<input checked="" type="checkbox"/> For cultural resources, consider the NPS thematic framework's eight themes to help identify contexts and processes relevant to the park's significance.	<p>This NPS framework describes major themes and concepts that help to both identify cultural resources and evaluate their significance in American history. For example, considering the theme of "peopling places" (family and the life cycle; health, nutrition, and disease; migration from outside and within; community and neighborhood; ethnic homelands; encounters, conflicts, and colonization) helps describe the significance of a place like Little Bighorn Battlefield as more than "the place where Custer was massacred." (See <i>History in the National Park Service, Themes and Concepts, National Park Service's Revised Thematic Framework</i>, adopted 1994, available at http://www.cr.nps.gov/history/history/categs/index.htm.)</p>
<input checked="" type="checkbox"/> Avoid statements about the park that do not relate directly to the park's purpose of preserving a portion of America's heritage.	<p>Significance statements are intended to help parks set priorities. They should not be so broad that they could justify all ongoing park programs. Many park programs are required by law or NPS policy, but this does not necessarily mean they are significant to the park's purpose.</p> <p>While it may be true that the park "provides a wide array of recreational activities" or that it "contributes significantly to the local economy," such facts do not represent the part of American heritage preserved at the park. Therefore, they are not good significance statements.</p> <p>Confining the park's significance to attributes related directly to the park purpose does not preclude the consideration of other important resources and values during planning. These additional qualities are identified in another section of the park's foundation statement.</p>
<input checked="" type="checkbox"/> Test the quality of draft significance statements.	<p>Some questions to ensure quality in significance statements include the following:</p> <ul style="list-style-type: none"> Do the statements go beyond just a listing of resources and include the context that makes the resources important representations of a part of the American heritage?

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Suggested Tools	Methodology
	<ul style="list-style-type: none"> Do the statements reflect current scholarly inquiry and interpretation, including changes that might have occurred since the park's establishment? Do the statements describe why the park's resources are important within a local, state, regional, national, or global context? Are the statements easily understood?

TABLE 6.2: EXAMPLES OF SIGNIFICANCE STATEMENTS

Weak	Better
Mauna Loa contains more material by volume than any other mountain.	Mauna Loa measured from its base beneath the surface of the sea to its peak contains more material by volume than any other mountain on earth.
Aztec Ruins NM contains structures representing cultures inhabiting the Four-Corners region from approximately 1050 to 1350 A.D.	Aztec Ruins NM is an integral component of 200 300 years of cultural cohesiveness and expression that occurred throughout the Four Corners region from approximately 1050 to 1350 A.D. The site is an important aid to understanding the earlier times of the Pueblo world in this area and, along with Mesa Verde, is an integral component of the larger Chacoan system.

6.2.4 Special Mandates and Administrative Commitments

Some park- specific legislative or judicial requirements, along with some administrative commitments, may be worthy of discussion and special consideration because (1) they are unusual (such as a special provision in a park's establishing legislation to allow grazing), (2) they add another dimension to an area's purpose and significance (such as the designation of an area in the park as part of the national wilderness preservation system, the inclusion of a river in the national wild and scenic rivers system, a national historic landmark designation for part of a park, or the designation of a park as a world heritage site or a biosphere reserve), or (3) they commit park managers to specific actions (such as an action required by a court order).

Definition and Program Standards

Definition	Program Standards
Legal mandates specific to the park that expand on or contradict a park's legislated purpose	Special mandates <ul style="list-style-type: none"> are specific to the park, but are additional to those directly related to the park's purpose are not an inventory of all the laws applicable to the national park system identify any potential conflict with the park's purpose and significance

Suggested Tools and Methodology for Identifying Special Mandates and Administrative Commitments

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Look for special mandates in the park's establishing legislation, in the legislation designating all or portions of the park as a unit of another national system, or in court orders.	<p>A special mandate should be specific to the park. It is not the intent of this element to consider all of the legal requirements that apply to the national park system as a whole (these are identified in the "Summary of NPS Legal and Policy Requirements"). Be careful not to include servicewide policies and mandates in this section.</p>
<input checked="" type="checkbox"/> Specifically note any inconsistencies between special mandates and the purpose of the park. Describe the implications that the inconsistencies have for park management and the extent of NPS management authority and flexibility in dealing with these mandates.	<p>Examples include legislative language directing that grazing or mining is authorized to continue in the park. Most of the time these mandates are subject to regulations or permitting, and the National Park Service has some latitude to restrict the location, timing, and extent of these activities. This latitude may be described as part of ongoing flexibility in management, or different ways of implementing this management discretion may be explored in the GMP alternatives.</p> <p>For example, at Mojave National Preserve the legislation authorized the continuation of certain rights-of-way for powerlines and pipelines. While this was considered a special mandate, the park also recognized that it had a management responsibility for the resources on these lands. The GMP appropriately dealt with the NPS management responsibilities while recognizing the mandate from Congress to allow these activities to continue, subject to NPS management.</p>
<input checked="" type="checkbox"/> Consider other administrative commitments, distinguishing between them and special mandates. Look for administrative commitments in park and other office files and through discussions with long-term park employees, regional office staff, and superintendents.	<p>Generally, administrative commitments are agreements that have been reached through formal, documented processes. Examples include a memorandum of agreement to abide by the policies of an interagency management commission, or to manage fishing in cooperation with the state department of fish and game.</p> <p>Occasionally, commitments will be less formal understandings, such as a commitment not to ban motorboats or other traditional uses.</p>
<input checked="" type="checkbox"/> Ask whether the item under consideration is revocable, negotiable, or subject to amendment. What is the extent of NPS management authority in this commitment?	<p>Agreements that are revocable by the superintendent or regional director, or that are subject to renegotiation or amendment, are items where the public has a right to be involved in the decisions. Such commitments, although not legally binding, should be acknowledged and fully considered as part of planning and management; however, the planning alternatives may consider changing these commitments.</p> <p>People may have assumed that something is a mandate, when in fact the requirement is not real or is negotiable. A full and honest discussion of what must be done and what cannot be done often leads to a broader range of options than originally anticipated.</p>

6. FOUNDATION STATEMENTS

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Include the source of the mandate or commitment in the statement.	Identify the specific law, regulation, court order or other legally binding document that is the source of the mandate. Include the date of the document and whether there are any time limits to the mandate (e.g. grazing must be allowed only for existing permit holders). It is important to separate “hearsay” commitments from real ones. Often there is a belief that a commitment has been made at some point in the past, but there is nothing to substantiate the assertion. These issues can be very sensitive, however, and must be handled with care.

TABLE 6.3: EXAMPLES OF SPECIAL MANDATES

Special Mandate — Great Sand Dunes National Park and Preserve
Hunting, fishing, and trapping shall generally be permitted on land and water within the preserve in accordance with applicable federal and state laws. Areas may be designated where, and limited periods established when, no hunting, fishing, and trapping are permitted for reasons of public safety, administration, or compliance with applicable law (Great Sand Dunes Act of 2000).
Special Mandate — Kalaupapa National Historical Park
At Kalaupapa National Historical Park, a cooperative agreement between the National Park Service and the Hawaiian Department of Health (DOH) states that the Park Service will maintain the Hawaiian DOH’s historic structures and facilities within the park, and the Hawaiian DOH may transfer ownership of historic structures to the NPS by mutual agreement.

Additional examples of special mandates are included in Appendix E.3.

6.3 IDENTIFICATION AND ANALYSIS OF FUNDAMENTAL AND OTHER IMPORTANT RESOURCES AND VALUES

6.3.1 General Considerations

The preeminent responsibility of park managers is to ensure the conservation and public enjoyment of those qualities (features, systems, processes, experiences, stories, scenes, etc.) that are critical (fundamental) to achieving the park’s purpose and maintaining its significance. These qualities are called the park’s *fundamental resources and values*.

Fundamental resources and values are closely related to legislative purpose, and are more specific than significance statements. Identifying and understanding the fundamental resources and values that are associated with each park purpose and/or significance statement will help focus planning and management on what is truly important about the park. It is these resources and values that maintain the park’s purpose and significance, and if these resources are allowed to deteriorate, the park purpose and/or significance could be jeopardized. Indeed, a loss of or major impact to a park’s fundamental natural or cultural resource could constitute an impairment, violating the 1916 NPS Organic Act.

A fundamental resource or value should be one that would not be questioned or easily questioned; it should be one that everyone agrees to. A pivotal question planning teams need to answer in identifying fundamental resources and values is this:

“What is the resource or value fundamental to?” Is it interpretation? Is it preservation of the resource? Is it history? Is it an overall understanding of the park? These are all different things.

Parks may also (but not always) have other resources and values that may not be fundamental to the park’s purpose and significance but are nevertheless determined to be particularly important considerations for general management planning. These are referred to as *other important resources and values*. The identification of fundamental and other important resources and values should not be interpreted as meaning that some park resources are not important. This exercise is primarily done to separate those resources or values that are covered by the NPS mandates and policies from those that have important considerations to be addressed in the GMP.

FUNDAMENTAL RESOURCES AND VALUES DEFINED

Those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management because they are critical to achieving the park’s purpose and maintaining its significance. A fundamental *value*, unlike a tangible resource, refers to a process, force, story or experience, such as an island experience, the ancestral homeland, wilderness values, key viewsheds adjacent to a park boundary, relationships among people, or oral histories.

Park managers are continually challenged to set priorities and allocate limited staff time and funding to adequately protect what is most important about the park while at the same time complying with the full array of legislative mandates, laws, and policies that cover all park resources and values. Many issues confronting parks can be characterized as potential or actual conflicts between preservation and visitor use. However, parks also confront real and potential conflicts between different resources and values relatively unrelated to visitor use. Great Falls Park, a part of the George Washington Memorial Parkway in Virginia, provides one example of how the GMP process and an understanding of “fundamental” resources or values can help resolve these questions.

Great Falls includes a segment of the Patowomack Canal developed by George Washington. The stone walls that lined the canal are being overgrown by vegetation, and tree roots can damage the structural integrity of these cultural resources. Natural resource specialists had noted that some of the plants and trees were significant. Cultural resource specialists had noted that the vegetation was damaging the historic stonework. A review of the park’s legislative history confirmed that one of its purposes was to “preserve the Patowomack Canal.” An analysis of significance also highlighted that the canal was one of the first built in the country and is directly associated with George Washington. This led to the conclusion that the canal was a “fundamental” resource, while some of the vegetation threatening the canal structures was not. Designation of a “canal zone” with emphasis on protection of cultural resources followed from this conclusion, while other areas of the park were placed in a zone that would seek to protect both natural and cultural resource values.

Similar conflicts can occur between different types of natural or cultural resources. For example, some Civil War battlefields have national register structures that may

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be important but do not date from the time of the battle and might be considered an intrusion on the fundamental resources and values for which the park was established. Another example is an expanding deer populations that can damage natural vegetation or adversely impact endangered species.

The reasons for identifying fundamental and other important resources and values include the following:

- *Focus* — The guidance provided through the GMP and the analysis leading up to that guidance, are focused on what is most important about the park.
- *Elaboration* — Fundamental and other important resources and values elaborate on what is most important about the park to ensure that specific features, systems, processes, experiences, stories, scenes, etc., are adequately addressed in planning and management. The plan will describe the desired conditions for these resources.
- *Specific management direction* — The GMP considers and ultimately prescribes the conditions to be achieved and maintained in the park for natural and cultural resources and visitor experiences determined to be fundamental or otherwise important.
- *Continuity* — Many parts of the GMP, such as primary interpretive themes, central questions or decision points to be addressed, alternatives to be considered, impact topics to be assessed, values to be used in selecting a preferred alternative, and indicators and standards for measuring success are all based on what is most important about the park.

The planning team and appropriate park staff should initially identify the fundamental resources and values. This comprehensive analysis could include consultation with recognized experts and with federal, state, tribal, and local agencies whose jurisdiction may include park resources and values. Such consultation helps ensure that the most meaningful set of features, systems, processes, experiences, stories, scenes, etc., are identified as the focus for planning and management.

Planning teams need to be flexible in identifying fundamental resources and values and other important resources, particularly with American Indian tribes. Each park staff will have different views about what these resources and values are. In some cases fundamental resources may directly fit with and be nested under a park purpose or significance statement; in other cases a fundamental resource or value may not directly fit with the purpose or significance statements. There is not necessarily a 1- to- 1 relationship between fundamental resources and values and significance statements. Some fundamental resources or values may relate to only one significance statement, or to three significance statements, or maybe only to the park purpose. After identifying the legislated purpose, consider identifying what is important about the park. Then begin sorting those into fundamental resources and values, significance statements, and other important resources and values.

In identifying the fundamental resources and values deserving primary consideration during planning and management, restraint is critical. The resulting list is useful only if it focuses on those relatively few things that are so important that they should be

6.3. Identification and Analysis of Fundamental and Other Important Resources and Values

the preeminent considerations in all park planning and decision making. The list of resources and values should not be interpreted as everything that is important about the park, or even everything that is nationally significant. It should be a relatively short list of resources or values considered to be critical to achieving the park's purpose and maintaining its significance. Identifying the fundamental resources and values helps ensure that all planning is focused on what is truly most significant about the park. It creates a tool that park managers and staffs can use to focus planning and management on highly significant resources and values and ensure that all the resources and values warranting preeminent consideration are adequately protected. It also helps ensure that limited funding is channeled toward those particular attributes that are fundamental to achieving the park's purpose.

Restraint is also critical in identifying other important resources that, although not directly related to the park's purpose, are determined to merit special consideration during general management planning. It should be stressed that the purpose of this part of planning is to focus on what is most important about the park, and that another part of planning addresses all the applicable laws and policies that must also be followed in all park management. (See "6.5. Summary of NPS Legal and Policy Requirements.")

Fundamental and other important resources and values should collectively capture the essence of the park. Analysis of fundamental and other important resources and values was added to the *Park Planning Program Standards* in 2004. As of the writing of this guidance, there has not been much opportunity for planners to gain experience with this subject. Methods will continue to evolve, and examples will be kept current on web links. One approach is to identify both fundamental and other important resources and values together, then analyze them both. The desired result of this analysis is to understand

- the importance of these resources and values
- the current state or condition and related trends
- potential future threats
- the interests of various stakeholders in the park's resources and values
- which laws and policies apply to these resources and values and what general guidance these laws and policies provide
- planning needs
- data and analysis needs
- additional information or actions needed for the GMP

(See also the program standards following.)

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Definition and Program Standards for Fundamental Resources and Values

Element	Definition	Program Standards
Analysis of fundamental resources and values	Analysis, including current state of knowledge and optimum conditions based on NPS <i>Management Policies</i> , of those features, systems, processes, experiences, stories, scenes, sounds, smells, or other resources and values determined to warrant primary consideration during planning and management because they are critical to achieving the park's purpose and maintaining its significance	<p>Fundamental resources and values</p> <ul style="list-style-type: none"> · warrant primary consideration during planning and management because they are critical to achieving the park's purpose and maintaining its significance · may include systems, processes, features, visitor experiences, stories, scenes, sounds, smells or other resources and values · are identified by an interdisciplinary team in consultation with recognized experts and other agencies that share jurisdiction · are analyzed in terms of status of existing information; national/regional context; optimum conditions based on NPS policies; current conditions, trends, and factors affecting the trends; and range of stakeholder interests and concerns · are not constrained in describing optimum conditions by considerations of foreseeable fiscal or technical feasibility (which may change in a relatively short time)
Analysis of other important resources and values	Analysis, including current state of knowledge and optimum conditions based on NPS <i>Management Policies</i> , of those other resources and values that are determined to be important to park planning and management, although they are not related to the park's purpose and significance	<p>Other important resources and values:</p> <ul style="list-style-type: none"> · include those resources and values that are determined to be important in their own right even though they are not related to the park's purpose and significance · are identified by an interdisciplinary team in consultation with recognized experts and other agencies that share jurisdiction · are analyzed in terms of status of existing information; national / regional context; optimum conditions based on NPS policies; current conditions, trends, and factors affecting the trends; and range of stakeholder interests and concerns · are not constrained, in describ-

6.3. Identification and Analysis of Fundamental and Other Important Resources and Values

Element	Definition	Program Standards
		ing optimum conditions, by considerations of foreseeable fiscal or technical feasibility (which may change in a relatively short time)
Policy-level issues*	Analysis of the potential for some resources or values to be detrimentally affected by discretionary management decisions designed to achieve conditions consistent with the park's purpose	Policy-level issues <ul style="list-style-type: none"> · identify where management discretion is required to resolve potentially incompatible conditions associated with the optimum management of the park's fundamental or other important resources and values · interpret NPS laws and policies as they apply to the park's resources and values, considering their interrelationships and conditions · are based on a scientific / scholarly analysis of context, conditions, trends, and factors affecting those trends, and the range of stakeholder interests and concerns

* The identification of policy-level issues can also be referred to as key or major issues that need to be addressed by future planning. As part of the analysis of fundamental resources and values, the team identifies the trends in condition and threats to the fundamental resources and values. A summary of the potential issues related to current trends and threats is the outcome of this analysis. It is likely that the major issues associated with fundamental resources and values will likely need to be resolved through a GMP process. However it could take a program or implementation plan.

Suggested Tools and Methodology for Identifying Fundamental Resources and Values

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Involve experts.	Experts both inside and outside the National Park Service can broaden the discussion of potential fundamental resources and values, leading to better identification of them. The WASO and regional program offices offer services to supplement the expertise of the park staff. For example, the Natural Resource Program Center can provide specialized expertise in areas of air, water, biology, and geology in the form of past studies or needed research, which can be requested through the annual technical assistance call. Experts outside the agency can also provide valuable information. For example, the Northeast Region uses a technique called the "scholars' roundtable" to involve stakeholders outside the agency in generating useful information about what is important about a park.

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Elaborate on those things that are critical to achieving park purpose and maintaining its significance.	<p>Fundamental resources and values translate the broader concepts of park purpose and/or significance into resources and experiences on the ground that should be the focus of park management. In other words, for each purpose and/or significance statement, identify what resources and values support the assertion in the purpose and/or significance statement. Tying the fundamental resources and values to the purpose and significance statements helps show the necessary level of detail and connection to the other planning elements.</p>
<input checked="" type="checkbox"/> To distinguish fundamental resources and values from the other important resources and values in the park, ask "What resources and values would be the most critical to study and manage to support the park's purpose and maintain its significance?"	<p>This would be similar to the exercises some parks undergo to determine what is "mission critical" in order to streamline their operation. Without the resources that are "fundamental to supporting the park mission," the purpose and significance of the park would be lost.</p>
<input checked="" type="checkbox"/> Resources or values beyond the park boundary may be identified as fundamental provided there is specific legislative reference.	<p>Lands related to park purpose and significance outside the park boundary may have fundamental value. For example, a viewshed that is contained both in the park and outside it is considered a fundamental resource (in the park) and value (outside the park) if the park's enabling legislation specifically captured this value external to the park boundary. Park enabling legislation will occasionally refer to resources outside the park boundary, such as the scenic landscapes at Cedar Creek and Belle Grove Plantation NHP. In such a case, the National Park Service would not be managing a resource beyond the park boundary but would be cognizant of its fundamental value to the park, setting the stage for partnership strategies for protection, for example. A fundamental value may also represent resources adjacent to the park that are proposed for a boundary expansion.</p>
<input checked="" type="checkbox"/> Consider using the idea list developed for identifying and describing desired conditions to expand on the features, systems, processes, experiences, opportunities, stories, scenes, etc., that might be considered to deserve special consideration during planning and management.	<p>Although the identification of fundamental and other important resources and values usually tiers off park significance statements and begins with obvious resources (for example, the saguaro cactus ecosystem at Saguaro NP), the team may want to consider related processes and interactions in order to more specifically describe what is fundamental or otherwise important about the park (for example, the density of ground cover necessary to support early saguaro development). The idea list developed to guide the description of desired conditions can also be used as a checklist.</p> <p>As another example, at Colorado NM, where the geologic cycles of uplift, erosion, and deposition are central to the purpose and significance of the park, a discussion of <i>geoindicators</i>, such as the near-surface</p>

6.3. Identification and Analysis of Fundamental and Other Important Resources and Values

Suggested Tools	Methodology
	<p>geologic and hydrologic processes and resulting wetlands, led the team to identify these wetlands as fundamental resources deserving special consideration during planning and management.</p> <p>Some teams have found that discussions at this level of detail are counterproductive to the primary need to start by focusing on what is truly most important about the park. In these cases, the team is encouraged to stay at a relatively general level in describing what is fundamental or otherwise important about the park, and to defer the greater level of detail to describing the specific desired conditions the park will be managed to achieve. (See "7.3.3. Area-Specific Desired Conditions.")</p>
<input checked="" type="checkbox"/> Define what was considered but determined not to be fundamental to the park's purpose and significance.	<p>Keeping track of team discussions about what was considered but eventually determined not to be fundamental serves to remind the planning team of their decisions, and can help in explaining fundamental resources and values to the public.</p>

TABLE 6.4: EXAMPLES SHOWING RELATIONSHIPS BETWEEN FUNDAMENTAL RESOURCES / VALUES AND PARK SIGNIFICANCE

Significance	Fundamental Resource / Value
Gettysburg NMP — Significance is partly defined as encompassing the site of a battle that was "the largest and most costly in human terms, lessened the ability of the Confederacy to wage war, and contributed to the ultimate preservation of the United States."	<ul style="list-style-type: none"> The geography, topography, and landscape features of the region, which directly influenced the conduct and eventual outcome of the campaign and battle
Olympic NP — Significance includes the preservation of "the finest sample of primeval forests of Sitka spruce, western hemlock, Douglas fir, and western red cedar in the entire United States, . . . and permanent protection . . . for wildlife indigenous to the area."	<ul style="list-style-type: none"> Glaciers/snowfields Rivers, including salmon spawning and rearing habitats Intertidal zones <p>Based on the premise that these habitats have a broad influence on the primeval forest communities the park was created to protect.</p>
Saguaro NP — Significance is based in part on containing "a superb example of the Sonoran Desert ecosystem due to the density of saguaro cacti and the existence of many generations in the forest."	<ul style="list-style-type: none"> The density of ground cover (due to its influence on supporting the early stages of saguaro development) The opportunity for expansive views of the giant cactus and associated plants, animals and landforms of the desert
Carl Sandburg Home NHS — Significance is based in part on being a place that "embodies the presence of Carl Sandburg more vividly than any other place he lived."	<ul style="list-style-type: none"> The biotic systems that contribute to the cultural landscape, and the opportunity to see artifacts from the time of Carl Sandburg
New Orleans Jazz NHP — New Orleans is widely recognized as the birthplace of jazz and the sites and structures associated with the early history of jazz remain in the city.	<ul style="list-style-type: none"> The opportunity for people to visit and understand the significance of sites associated with the history of jazz in New Orleans and the context of that history.
Canyonlands NP — The park provides incomparable opportunities to view this colorful, geologically important wilderness from various perspectives.	<ul style="list-style-type: none"> The opportunity for visitors to learn of methods, locations, and opportunities to experience solitude, natural sounds, long-range views, and a feeling of wilderness

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Significance	Fundamental Resource / Value
Apostle Islands NL — Within the boundaries of Apostle Islands National Lakeshore is the largest and finest collection of lighthouses in the country.	<ul style="list-style-type: none"> · Lighthouses and historic structures associated with them · Cultural landscapes associated with the lighthouses (e.g., ground clearing, gardens, relationships to old growth forests due to lighthouse reservations, etc.) · Stories associated with the lighthouses and lightkeepers · Research values of the light stations' cultural landscapes · Views of the lighthouses from the water · Views from within the lighthouses
Yellowstone NP — Significance includes the largest contiguous wildlife habitat in the Lower 48 states.	<ul style="list-style-type: none"> · Habitat connectivity, which allows wildlife to roam freely across expansive areas

Suggested Tools and Methodology for Identifying Other Important Resources and Values

Some park resources and values, while not related to the park's purpose and significance, are still determined to warrant special consideration during general management planning. This category may be particularly useful for important cultural resources in primarily natural parks and for important natural resources in primarily cultural parks. It is the discretion of the planning team to decide whether something should be categorized as "fundamental" or "otherwise important." For example, regionally important historic structures at a park like John Day Fossil Beds NM could be determined by a planning team to be either fundamental resources or other important resources. The main point is that those things that warrant primary consideration during general management planning are identified and analyzed.

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Focus on those things that are particularly important.	Remember that it is important to keep this list narrowed to solid reasons of importance, such as national historic or natural landmark significance, rarity, or particular importance to people (e.g., American Indian tribes or the general public). If it becomes inclusive of every plant and cultural resource, the usefulness of identifying these focal points is lost. All applicable laws and policies covering all park resources and values are acknowledged in the last section of the foundation statement. The park's resource stewardship strategy covers all park resources, including those not specifically mentioned in the GMP.
<input checked="" type="checkbox"/> Ask, "Are there strong support groups?" and "Is there a specific or critical planning issue that needs to be resolved?"	A checklist of considerations for identifying important cultural resources and values is included in Appendix E.2.

TABLE 6.5: EXAMPLES OF OTHER IMPORTANT RESOURCES AND VALUES

<p>The significance of Petrified Forest NP is primarily related to its globally significant fossil formations. The Painted Desert Headquarters complex is a significant Mission '66 work designed by renowned architect Richard Neutra. The complex is eligible for the National Register of Historic Places and is of great interest to the state historic preservation office, as well as the community of architects nationwide.</p> <p>The complex is considered a fundamental resource and value because it is not a reason that the park was created, but it would fit the category of other important resources and values.</p>
<p>Sequoia NP was established to protect giant sequoia trees and for other related purposes. A historic district of cabins and visitor facilities that is listed on the National Register of Historic Places was a very important resource to consider during planning.</p> <p>Because the historic district does not contribute to the purpose and significance of the park, it is considered as an "other important resource" to be analyzed.</p>
<p>At a national historic site whose significance is primarily related to cultural resources and values, a resource such as "the existing and potential habitat of an endangered species that exists in only three areas within the entire state" might be addressed as "an other important" resource because of its relative significance to the regional ecology and biodiversity. Other threatened or endangered species with only a small percentage of potential habitat inside the park would probably be addressed broadly in "other NPS laws and policies," where it would be noted that all threatened and endangered species would be protected in compliance with federal law as part of basic park management.</p>

6.3.2 Analyzing Fundamental and Other Important Resources and Values

For every fundamental or other important resource and value, some basic analysis is needed to identify current conditions and potential threats, the level of stakeholder interests, and existing policy and planning guidance. This analysis is needed to identify basic management strategies that are in place and/or to identify issues that need to be addressed in a general management planning process (or possibly another planning process).

The intent of this analysis is not to be lengthy and exhaustive, but rather to summarize the basic information related to each resource and value needed to guide subsequent planning and management. This basic analysis may identify information gaps and further analysis needed to complete a GMP. Below are the questions that need to be answered for each fundamental or other important resource or value.

Some planning teams may have rather lengthy lists of fundamental and other important resources and values, which may make the analysis step seem daunting. The team should consider keeping the analysis as brief and succinct as possible to make this step efficient. In addition, the team may find it helpful to group some of the fundamental resources and values into larger categories for analysis purposes. For example, the Apostle Islands NL planning team listed many types of coastal features and processes (such as tombolos, sand spits, cusped forelands, and barrier spits) that are fundamental to the park, but the analysis was conducted on the larger theme of coastal processes and features. If some of the resources and values are grouped, the analysis may call out conditions, threats, or interests that are specific to one of the individual fundamental resources or values. For instance, in the Apostle Islands example, the analysis included some specific discussion about threats to sand spits, particularly trampling of dunes and vegetation resulting from large amounts of visitor foot traffic on these particular resources.

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The analysis of fundamental and other important resources and values assumes that basic inventory information is available, and that subject matter experts have helped identify and analyze these resources and values. In some cases, it may not be possible to complete the analysis section of the foundation statement until adequate information is available. (If important data and analysis needs are identified by the team, this should be noted in the analysis.) The following are some suggested sources of information for preparing the analysis:

- park staff specialists (or other experts)
- notes from internal scoping trip
- existing and older plans (e.g., a water resources management plan)
- PMIS statements and project agreements
- resource stewardship strategies
- national historic landmark and/or national register documentation
- cultural and/or natural resource databases and studies (see Appendix L)
- legislation and legislative history
- park- specific research
- inventory and monitoring data
- WASO Natural Resource Program Center resource reports
- scientific literature
- park brochures and websites
- NPS *Management Policies 2006*, reference manuals, etc. (for identifying applicable laws and policies)

Another important part of analysis preparation is to gather a summary of issues that have been identified to date, through internal scoping; consultation with agencies, tribes, or partners; or public scoping (if it has been initiated). These issues may assist in defining the threats or current trends in conditions affecting the fundamental resources and values. When full public scoping is completed, or as the GMP process proceeds, new issues are likely to be raised. In such a case, the analysis of fundamental resources and values will need to be appropriately revised. This part of the foundation statement will be updated as needed to reflect the most current information about conditions and threats, as well as stakeholder interests, which may be gained through GMP scoping, scientific or academic research, and other analytical processes. Using the example from Apostle Islands NL mentioned above, the current problems of trampling of dunes and vegetation as a result of large amounts of visitor foot traffic leads to the major issue to be resolved in a future GMP or implementation plan — how should visitor use be managed in these sensitive areas of the lakeshore?

The analysis may include sections on general law and NPS policy guidance and management directions called for by those laws and policies. Although these management directions may not all currently be implemented, they all should be based on and consistent with existing law, policy, and approved plans. It is also important that

6.3. Identification and Analysis of Fundamental and Other Important Resources and Values

these management directions not be controversial or require analysis and documentation under NEPA.

Asset management data may be considered in the analysis of resources. Fundamental and important resource designations ideally would be consistent with API ratios. If an API ratio for a fundamental resource does not reflect its standing as fundamental, the ratio may need to be adjusted or the designation considered more carefully. Asset data may help in assessing the condition of resources in the analysis.

The actual analysis of fundamental and other important resources and values may or may not be included in a GMP. Although the analysis may provide a wealth of information, it also may be long, particularly for a large park. Also, the analysis will change over time, and therefore it may not be pertinent throughout the life of the GMP. Thus, depending on the park and the detail, length, and time-sensitivity of the information, the planning team may decide to include the analysis in the GMP, or reference it as a document in the bibliography, or simply include it in the administrative record. (The analysis should not be confused with the fundamental and other important resource and values themselves, which should be included in the GMP.)

Suggested Tools and Methodology for Analyzing Fundamental and Other Important Resources and Values

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Ask, "What is the importance of this resource or value?"	<p>If the resource or value is directly tied to one of the park's significance statements, this step will likely be a brief elaboration on the thoughts already included in the related significance statement. It needs to be clear to the reader why this resource or value is fundamental to the purpose of the park. It may be helpful to consider and define the ecological, cultural, and/or social context of the resource or value. For example, the importance of wildlife encounters may be that there are few places for people to hear wolves howl. In other instances, the resource or value may be the key link to supporting one of the significant things about the park. For example, the natural soundscape might be a critical value supporting the opportunity to hear wolves howl; or habitat connectivity might be critical to supporting opportunities for observing wildlife in their natural habitat; or geothermal processes might be critical to supporting geysers and other geothermal features.</p>
<input checked="" type="checkbox"/> Ask, "What are the current conditions and trends in the condition of the resource or value? Are there any current or potential threats to this resource or value?"	<p>In examining the resource or value, consider what impacts have occurred, are occurring, or have the potential to occur in the future. Often, understanding a recent trend is equally or more important than observing the current condition. For example, water quality may be currently above a desired standard, but may be declining as a result of impacts from increased boating activity, such that it could be expected to fall below the standard in the near future.</p>

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Ask, "What, if any, stakeholder interest is related to this resource or value?"	<p>Identify and define any public or political concerns associated with management of this resource or value. For example, methods for population management of a particular species may be of interest to different stakeholders.</p> <p>Identify and define any interests and concerns of traditional park users and others with special cultural ties to the resource or value. For example, American Indians, other traditional park users, or their descendants may have harvesting rights to a particular resource.</p> <p>Identify and define any interests and concerns of scientists, scholars, and other researchers.</p> <p>Identify and define any interest from other public land managing agencies related to this resource or value. For example, protection of migration corridors may require cooperation from nearby public land managers.</p> <p>Some or all of these concerns may be identified and defined during the public scoping stage of the GMP planning process.</p>
<input checked="" type="checkbox"/> Ask, "Which laws and policies apply to this resource or value, and what general guidance do they provide?"	<p>NPS <i>Management Policies 2006</i>, applicable laws, executive orders, and the <i>Code of Federal Regulations</i> provide the basic direction for the management of all classes of park resources and values, including opportunities for visitor enjoyment. Identify which are the major laws and policies that apply to these resources and values, and briefly summarize the management or condition(s) outlined by those laws and policies. For example, the NPS policies for watershed and stream processes (sec. 4.6.6) state that managers should protect watershed and stream features primarily by avoiding impacts to watershed and riparian vegetation, and by allowing natural fluvial processes to proceed unimpeded. However, when infrastructure (such as bridges and pipeline crossings) begins to affect natural resources (such as stream processes) in unavoidable ways, managers are directed to use techniques that are visually unobtrusive and that protect natural processes to the greatest extent possible.</p>
<input checked="" type="checkbox"/> Ask, "What is the quality and comprehensiveness of the existing information about the resource or value? Is it adequate to proceed, or can the information be gathered as the plan proceeds?"	<p>This step is critical and is one of the major reasons for completing a foundation statement — to allow for the evaluation of the adequacy of information about those things that are most important about the park. All park staff should have at least some information about their fundamental and other important resources and values. Those resources, which are the focus of the GMP, should be assessed to determine if the available data are complete and up-to-date or if there are critical gaps that need to be filled before proceeding. If the information exists and just needs to be gathered and analyzed from park files or publications, then the project may proceed.</p>

6.3. Identification and Analysis of Fundamental and Other Important Resources and Values

Suggested Tools	Methodology			
	<p>If critical gaps may only be filled by new research or study, then the project should be delayed until this information is available. This is a judgment call by the planning team and park about whether the missing data are critical to the planning effort.</p> <p>Deficiencies in this information base should be identified and needs prioritized early in the process. The <i>Park Planning Program Standards</i> state that parks without a well-established program of data gathering and analysis may need to allow up to five years to ensure that adequate information is available to support planning and decision making. This estimate is based on one year to comprehensively and systematically identify fundamental and other important resources and values and to apply for supplemental program funds, if needed; three years to collect information (the minimum needed to survey sporadic events or to establish preliminary trend lines); and one year to analyze and synthesize the data into forms useful to planners and decision makers.</p> <div><div>Foundation for Planning and Management</div><table><tr><td>Year 1 Identify fundamental resources and values</td><td>Years 2-4 Collect data</td><td>Year 5 Analyze and synthesize data</td></tr></table></div>	Year 1 Identify fundamental resources and values	Years 2-4 Collect data	Year 5 Analyze and synthesize data
Year 1 Identify fundamental resources and values	Years 2-4 Collect data	Year 5 Analyze and synthesize data		
<input checked="" type="checkbox"/> Ask, “What planning decisions exist for the fundamental resource or value, and what is the current relevance or validity of those decisions?”	<p>Guidance in recent planning documents (such as past GMPs, resource plans, comprehensive interpretive plans, or development concept plans) may provide management direction regarding fundamental resources or values. By ensuring an inventory of guidance that already exists and is still appropriate, the planning needs of the park can be further refined. A judgment call often may need to be made on how valid or useful these past decisions were. The foundation statement should note relevant decisions that still apply. The planning team might also want to note flawed decisions or decisions that are no longer relevant.</p> <p>These past decisions will either help focus the GMP on the most pressing, unresolved issues or perhaps identify the need for a different level of planning.</p>			
<input checked="" type="checkbox"/> Distinguish between information that is and is not critical to the GMP.	<p>The National Park Service has many legal and policy requirements regarding resource inventory and monitoring. However, unless the missing information is critical to GMP-level planning decisions about fundamental and other important resources and values, the GMP should not be delayed to gather the data.</p>			

6.4 PRIMARY INTERPRETIVE THEMES

6.4.1 General Considerations

Primary interpretive themes describe what needs to be interpreted to provide people with opportunities to understand and appreciate park purpose and significance. The identification of primary themes is part of a park's foundation statement. Themes are derived from — and should reflect — park significance. Additional perspectives may be obtained from the identification and analysis of fundamental and other important resources and values. Primary themes should be few enough in number to provide focus for the interpretive program; but numerous enough to represent the full range of park significance.

The values and uses of primary interpretive themes include the following:

- In general management planning, primary interpretive themes may form the basis for alternatives and management zones that prescribe resource conditions and visitor experiences.
- Primary interpretive themes provide the base for the park's educational and interpretive program.
- Primary themes lead to the identification of services, resources, and experiences that should be accessible to visitors and the public.
- Identifying primary themes leads to recommendations for interpretive and educational facilities, media, and services that are core to the park mission and facilitate emotional and intellectual connections with park resources and values.
- Primary interpretive themes guide the development of interpretive media and programs that help visitors connect tangible park resources and experiences to larger ideas, meaning, and values.
- The development and interpretation of primary themes provide a framework for shared perspectives among visitors, stakeholders, and publics.

How does one recognize good themes? It is important that planning teams be clear about the eventual uses of the themes (see list above). Effective primary themes are important, understandable, concise, comprehensive, complete, and accurate thoughts. They should be

- *Important* — They relate to significance and represent the most important stories to be told.
- *Understandable* — Different people reading the themes will have the same understandings of their intent.
- *Concise* — They are stated simply enough to be comprehended singly and as a group by diverse readers.
- *Comprehensive* — They represent all of the most important ideas reflecting park significance.
- *Useful* — They accomplish the purposes for which they were developed.

6.4. Primary Interpretive Themes

- *Complete* — They present the whole rather than a part of an idea; they are generally stated in one or two complete sentences.
- *Accurate* — Information and contexts represent the latest scholarship.

Interpretive themes are written at many levels. The set of primary interpretive themes, which are included in GMPs and comprehensive interpretive plans, as well as the foundation statement, are the most general and should be identical in all three documents. More detailed and specific themes may tier off of the primary themes; these include the subthemes or secondary themes found in some comprehensive interpretive plans, and the program- specific and media- specific themes found in implementation plans.

Definition and Program Standards

Definition	Program Standards
The most important ideas or concepts to be communicated to the public about a park	Primary interpretive themes <ul style="list-style-type: none"> · are based on park purpose and significance · connect park resources to relevant ideas, meanings, concepts, contexts, beliefs, and values · support the desired interpretive outcome of increasing visitor understanding and appreciation of the significances of the park's resources

6.4.2 Suggested Tools and Methodology for Developing Primary Interpretive Themes

There are many ways to develop a park's set of primary interpretive themes. The examples and links below show some of the approaches. Planning teams should use the approach that works best for them to produce themes that meet the above criteria.

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Have the necessary people at the table when developing primary interpretive themes.	These include (at the least) <ul style="list-style-type: none"> · a facilitator who is an experienced interpretive planner, familiar with general management planning and with long-range planning for interpretation, education, and visitor experience · park staff from various work units (not just interpretation — don't forget resources, protection and maintenance) and grade levels (front-line personnel and volunteers, not just the chiefs) · people with relevant subject-matter expertise and knowledge of visitors and interpretation/education/recreation
<input checked="" type="checkbox"/> Focus on the park's significance statements, and draw upon the park's fundamental resources and values statements. All play a role in developing themes that are important, understand-	Primary interpretive themes do not include everything a park may wish to interpret, but focus on the ideas that are critical to a visitor's understanding of the park's significance. A one-to-one correspondence between themes and significance is not required. The set of primary interpretive themes is complete when it provides

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Suggested Tools	Methodology
able, concise, comprehensive, complete, and accurate thoughts.	opportunities for people to connect with all of the park's significance, and its fundamental and other important resources and values. Consider using the NPS thematic framework for cultural resources (earlier in this chapter) to explore the holistic and interconnected story of resources when developing primary interpretive themes. Appendix E.6 provides an example of how primary interpretive themes can be developed from a set of park significance statements.
<input checked="" type="checkbox"/> Combine or divide statements to achieve an optimum number of themes.	Most parks find an optimal number of primary interpretive themes to be between three and seven.

6.4.3 Sources of Additional Information

Planning for Interpretation and Visitor Experience (NPS 1996b) — A summary of goal-driven interpretive planning approaches used by HFC staff, including relationships, descriptions, examples, and general methodology of planning elements.

<http://www.nps.gov/hfc/pdf/ip/interp-visitor-exper.pdf>

CIP Guide — A Guide to Comprehensive Interpretive Planning (NPS 2005e) — Contains detailed descriptive handouts and outlines used by Intermountain Region interpretive planners to organize and conduct comprehensive interpretation planning workshops. Also includes sets of significance statements and primary interpretive themes.

<http://inside.nps.gov/regions/custommenu.cfm?lv=2&rgn=272&id=5830>

Comprehensive Interpretive Planning: Interpretation and Education Guideline (NPS 2000e) — Provides NPS policy and guidelines for interpretive planning. Includes philosophy and recommended elements for comprehensive interpretive plans, including long-range interpretive plans, annual implementation plans, and interpretive databases. Leadership and oversight of interpretive planning is provided by the NPS chief of interpretation and the Harpers Ferry Center.

<http://www.nps.gov/hfc/ip/cip-guideline.pdf>

6.5 SUMMARY OF NPS LEGAL AND POLICY REQUIREMENTS

6.5.1 General Considerations

The purpose of identifying NPS legal and policy requirements is to assure stakeholders that park managers are aware of and working to comply with all laws and policies governing park management. This assurance takes on even more meaning with the identification of fundamental resources and values and other important resources and values, as there could be concern that park resources and values that are not “fundamental” or otherwise “important” to general management planning may be ignored. Certainly the 1916 NPS Organic Act and the numerous other laws,

policies, and regulation that apply to all units of the national park system prescribe many resource conditions and some aspects of visitor experience. Examples of requirements include mandates to protect threatened or endangered species, to identify and protect archeological resources, and to provide barrier-free access to public facilities. The National Park Service strives to implement these requirements with or without a GMP, within funding and staffing constraints. Thus, even though endangered species or archeological sites may not be identified as fundamental resources or values in a park or addressed directly in the GMP alternatives, the park staff still strives to protect these resources as prescribed by law and policy. This section of the foundation statement is intended to communicate that commitment.

6.5.2 Definition and Program Standards

Definition	Program Standards
Brief overview of the large body of federal laws, policies, and regulations governing all units of the national park system	<p>The summary of servicewide legal and policy requirements</p> <ul style="list-style-type: none"> · recognizes the body of federal laws, policies, and regulations that apply to all parks · may address the requirements of individual laws or policies related to natural resources, cultural resources, visitor use, facility development, or park operations if they are particularly relevant to issues of concern at the park

6.5.3 Suggested Tools and Methodology for Summarizing Legal and Policy Requirements

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Summarize the body of legal and policy requirements that relate to the park, highlighting any specific laws or policies that are of particular importance to the specific park.	<p>This summary should be as concise as possible, since it does not provide new information; however, it should be detailed enough to communicate that park management will comply with current laws and policies in the protection of resources and values that may be of particular concern to stakeholders.</p>

There are many approaches to including NPS legal and policy requirements. Four different approaches are shown in Appendix E.7, illustrated by one topic area from four different GMPs. The approach should be chosen in the context of the complexity of the park, the interest and knowledge of the public, and the possible overlap with the analysis of fundamental resources and values. The chosen approach should avoid redundancy between this section and the analysis of fundamental resources and values.

6.6 PUTTING IT ALL TOGETHER

The various elements of the park foundation statement may require separate processes to get them done, but in fact they are interdependent and should be developed

6. FOUNDATION STATEMENTS

alongside one another. Planning is iterative, not linear; there should be opportunities to revisit earlier ideas when new insights are gained. Large and complex parks are likely to require more than one workshop to develop all of the elements of a foundation statement, while smaller or less complex parks may be able to develop the statement with just one workshop supplemented by additional staff time. With outside experts and partners strongly encouraged to participate, there could be variations in the composition of each workshop (as long as there remains a consistent core). Table 6.6 presents a few ideas of how to combine some of the elements and invite different participants.

TABLE 6.6: ALTERNATIVE SCENARIOS FOR DEVELOPING PARK FOUNDATION STATEMENTS

Scenario 1 — Park with valid purpose and significance, new primary interpretive themes, no complex issues				
Advance Preparation	Workshop		Follow-up	
Park staff and planners: <ul style="list-style-type: none">· assemble existing purpose, significance, primary interpretive themes, special mandates· review the enabling legislation and legislative history	Peer park staff, associated scholars and scientists: <ul style="list-style-type: none">· review existing purpose, significance, primary interpretive themes, special mandates· identify fundamental resources and values and other important resources and values	Planners and park staff: <ul style="list-style-type: none">· analyze fundamental and other important resources and values· identify NPS laws and policies· prepare drafts for team review by e-mail and phone		
Scenario 2 — Complex park needing a comprehensive foundation overhaul				
Advance Preparation	Workshop 1	Interim Preparation	Workshop 2	Follow-up
Park staff and planners: <ul style="list-style-type: none">· assemble existing purpose, significance, special mandates· review legislative history· review current scholarship, research	Peer park staff, associated scholars and scientists: <ul style="list-style-type: none">· review purpose, significance, special mandates· identify fundamental resources and values and other important resources and values	Planners: <ul style="list-style-type: none">· finalize purpose, significance, special mandates· conduct draft analysis of primary interpretive themes· identify NPS laws and policies· prepare drafts	Neighboring agencies, tribes, cooperating association, civic leaders: <ul style="list-style-type: none">· develop primary interpretive themes· review analysis of fundamental and other important resources and values· review NPS laws and policies	Planners and park staff: <ul style="list-style-type: none">· integrate all pieces into foundation statement· prepare drafts for team review by e-mail and phone

6.7 SUGGESTED TOOLS AND METHODOLOGY FOR CONDUCTING EFFECTIVE WORKSHOPS

Workshops, while often highly effective, can also be relatively expensive in terms of time commitments and travel costs. Following are some suggestions to keep down costs and respect people's time.

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Keep the number and length of workshops to a minimum.	Identify the purpose of each workshop and prepare an agenda that maximizes the interaction of participants in the minimum amount of time. Utilize e-mail, phone conferences, questionnaires, the sourcebook, training, and other communication tools before and after workshops for activities that require less direct interaction. Articulate the purpose and desired outcome of each workshop to all participants, and employ good facilitation skills to keep the workshop on track.
<input checked="" type="checkbox"/> Invite the right people.	Focus on the purpose of each workshop and make sure that the key park and regional staff are available, along with other recommended stakeholders. When possible, the same planning team members that participate in the development of the foundation statement should also be on the GMP team so they have a full understanding of the discussions that occur during the foundation workshop. While stakeholders are encouraged to participate, be careful to structure the invitations and expectations of what the workshop is about. Strike a balance between striving for a wide spectrum of participants and maintaining a manageable group size. Facilitation and consensus become increasingly difficult as the size of the group grows. Schedule workshops well in advance to ensure that the greatest number of desired participants can attend. Be clear that the workshop is not a broad public meeting and that no management decisions will be made.
<input checked="" type="checkbox"/> Do the homework.	Assemble bibliographies, legislative histories, previous planning documents, and other information well in advance of workshops. Sometimes it is helpful to summarize this material for workshop participants. Have an experienced planner draft elements in advance for review and revision by the team. Get appropriate materials to participants in advance. Require reading or training before workshops. Develop specific handouts to guide participants through the workshop, and organize them into a workbook or notebook to keep everyone on the same page. (The "Klondike Gold Rush National Historical Park Foundation Workshop" booklet and the "Hubbell Trading Post National Historic Site Stakeholder Foundation Workbook" are examples of such handouts.) Plan for accurate recording of the workshop discussions and decisions, and circulate notes to all participants following the workshop. If possible, hold an

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Suggested Tools	Methodology
	orientation for those team members not familiar with the park to experience a sense of the place. (If the foundation statement is being developed as part of the GMP, the foundation workshop could be held as part of an orientation trip for the full planning team or at a follow-up session.)

6.8 UPDATING FOUNDATION STATEMENTS

As stated in the introduction to this chapter, general management planning is the most appropriate process for reviewing and possibly expanding or revising a foundation statement. Table 6.7 indicates the stability envisioned for the elements of the foundation statement, and reasons that may necessitate expansion or revisions.

TABLE 6.7: STABILITY OF ELEMENTS OF A FOUNDATION STATEMENT

Element	Likelihood of Change	Possible Reasons to Revise
Purpose	Almost none	New legislation; major park expansion; major change in knowledge of ecological or cultural processes in the park
Significance	Little	New information or scholarship, new legislation or boundary change
Special mandates	Little	New legislation; new formal agreements or commitments
Identification of fundamental and other important resources and values	Some	New information or scholarship
Analysis of fundamental and other important resources and values	Some (after full scoping) Likely (if initially developed prior to full scoping)	Changes in trends, threats, stakeholder interest; changes to fundamental or other important resources and values. Identification of new issues that affect trends, threats, or stakeholder interest; changes to fundamental or other important resources and values
Primary interpretive themes	Some	New information or scholarship, changes in significance or fundamental and other important resources and values
Other NPS laws and policies	Little	Revised or new laws and policies

7. DEVELOPMENT OF GMP ALTERNATIVES

The GMP focuses on what is most important about the park and prescribes the desired resource conditions, associated opportunities for visitor experiences, and kinds and levels of management, development, and access appropriate to achieving the desired resource conditions and visitor opportunities.

NEPA and NPS policies require that park managers consider a full range of reasonable alternatives, including a no- action alternative and an environmentally preferred alternative, before choosing a preferred alternative. The alternatives should be consistent with the park's purpose and significance, focus on its fundamental and other important resources and values, reflect the range of stakeholders' interests in the park and the desirability of providing for a variety of visitor experiences, and fully consider the potential for environmental impacts.

The full range of reasonable alternatives is identified and analyzed in the GMP/EIS or EA. The decision maker must consider all these alternatives and any other reasonable alternative or portion thereof suggested by the public.

7.1 INFORMATION AND ANALYSIS NEEDED BEFORE ALTERNATIVE DEVELOPMENT

The identification of a full range of reasonable alternatives is an iterative process that incorporates information from ongoing internal and external scoping, analysis, and review. The planning team synthesizes and integrates several major categories of information in identifying this range, including the following (which are further described below):

- policy direction and policy- level issues related to the management of the park's fundamental and other important resources and values
- the interests and concerns raised during internal consultations and public involvement (scoping)
- input from resource, experiential, and land- use analysis
- an analysis of the park's current facilities and infrastructure
- the park's primary interpretive themes

We are all inventors, each sailing
out on a voyage of discovery,
guided each by a private chart,
of which there is no duplicate.
The world is all gates, all
opportunities.
—Ralph Waldo Emerson

7.1.1 Policy Direction and Policy-level Issues Related to the Management of the Park's Fundamental and Other Important Resources and Values

This information should be found in the park's foundation statement (see Chapters 4 and 6. See also "7.2.2. Hierarchy of Management Directions in a GMP: A Tiered Approach."

7.1.2 The Interests and Concerns Raised during Internal Consultations and Public Involvement (Scoping)

NEPA requires an early and open process for determining the scope of issues to be addressed and for identifying the significant issues associated with the proposed alternatives (see “Formal NEPA Scoping,” page 4- 13). Once scoping comments have been analyzed, the planning team should know what decisions the GMP needs to make (the major questions the plan needs to answer), the fundamental and other important park resources and human values potentially at stake, and the relationship between alternative actions and the human environment (the NEPA issues). If this information varies from the assumptions documented in the project agreement, the agreement should be revised.

If the planning team determines that certain issues (identified either internally or externally) do not apply to the GMP, the team should discuss these in the EIS or EA as issues considered but dismissed, and drop them from further analysis.

Issues may be considered but dismissed for reasons such as being outside the scope of the area affected by the proposed alternatives. Issues may also be dismissed if, upon further investigation, there are no potential impacts to the human environment. However, there may be other compelling reasons to include these issues (for example, to support a finding of no significant impact (FONSI)).

Major Questions That a GMP Needs to Answer

The generic question for all GMPs is, “*Should we achieve one set of resource conditions and visitor experiences, or another?*” Each planning project will pose more specific versions of this question based on the particular circumstances at each park.

To help ensure that the full range of stakeholder interests are reflected in these questions, study the list of GMP-level interests and concerns generated during scoping and look for places where people’s expectations about resource conditions and experiences are substantially different. The “tension” created by these differences will be the questions the plan needs to answer: “Should the park or areas of the park be like this, or like that?”

Keep in mind that planning questions may be tiered. A broad decision about what should be accomplished for the park as a whole may need to be made before decisions about specific locations, particular resources, or certain visitor uses.

At this stage in the planning process, the team will usually also start to identify impact topics, which are the specific natural, cultural, or socioeconomic resources or values that might be affected by implementation of the alternatives under consideration, including the no-action alternative. Although impact topics are not necessarily among the drivers of the range of reasonable alternatives, they are an important consideration that may cause alternatives to be modified in an iterative planning process. The identification of impact topics is addressed under “Impact Topics” in Chapter 10. (See also *The DO-12 Handbook* for a list of mandatory topics to be considered in an EIS (sec. 4.5.F.2).)

7.1.3 Analyzing Agency and Public Input to Identify Key GMP Issues

The following methods and tools describe a process for analyzing the great variety of ideas, interests, and concerns raised during the early stages of planning and using that information to identify and describe the general management planning alternatives.

7.1. Information and Analysis Needed before Alternative Development

Determining Which Scoping Comments to Address

The planning team will receive many ideas during scoping that can be a overwhelming. It is important to systematically identify which comments the GMP will address and which ones it will dismiss and document why. This process is depicted in Table 7.1.

TABLE 7.1: IDENTIFYING SCOPING COMMENTS TO ADDRESS

Stakeholder Input	Primary Filter	Sorting to Determine GMP/EIS Issues (Shaded Boxes)		Required Decision
Comprehensive list of people's interests and concerns identified during internal and external scoping (which may span a multiyear period) <ul style="list-style-type: none"> · NPS leadership · park staff · other agencies with jurisdiction · elected officials · scientific/scholarly experts · current/potential visitors · traditional users and park neighbors · cooperators and partners · general public 	Legal and Policy Requirements	Ideas, interests, and concerns that can be addressed by NPS policy without a need for management discretion to balance or prioritize overlapping and potentially conflicting policy guidance	→	Interests or concerns satisfied by ongoing management strategies
		Ideas, interests, and concerns that require management discretion to balance or prioritize overlapping and potentially conflicting policy guidance	→	Major questions to be answered by the GMP, also called the decision points of the GMP. The planning alternatives should represent different ways of answering these questions.
		Ideas, interests, and concerns about potentials for an effect on the human environment associated with GMP decisions	→	NEPA issues to be analyzed by the GMP/EIS or EA
		Ideas, interests and concerns that are outside the scope of the GMP (ideas about specific management activities or facilities that need to be deferred to implementation planning)	→	Implementation planning issues
		Ideas, interests, and concerns that are inconsistent with legal and policy direction	→	Interests or concerns dismissed from further consideration

After sifting, sorting, questioning, and organizing agency and public input, each interest and concern should be addressed by one of these categories:

- a major question about future management direction that needs to be answered by the GMP
- NEPA issues and impact topics that should be considered in the EIS or EA

7. DEVELOPMENT OF GMP ALTERNATIVES

- interests, concerns, and management directions that are adequately covered by NPS law and policy guidance
- interests or concerns that have been dismissed because they contradict law and policy
- issues that should be addressed in implementation plans or are otherwise beyond the scope of a GMP

Suggested Tools and Methodology for Analyzing Agency and Public Input to Identify Key GMP Issues

The following questions can further help answer in sorting and pinning down the key questions a GMP needs to address (categories 1 and 2 above):

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Ask, "Which remaining interests and concerns are adequately addressed by NPS laws and policies?"	The summary of NPS legal and policy requirements in the foundation statement describes how the broad spectrum of park resources and visitor experiences are managed in accordance with NPS laws and policies, even though not specifically identified as fundamental or otherwise important. These are management directions that may continue without the need to consider GMP alternatives. If external scoping identifies interests or concerns in this category that are not adequately addressed in the foundation statement, the foundation statement should be updated.
<input checked="" type="checkbox"/> Ask, "Are any of these remaining ideas, interests, and concerns contrary to the laws and policies governing park management?"	Any ideas that are contrary to law or policy must be carefully considered before being carried forward. CEQ regulations and <i>The DO-12 Handbook</i> (sec. 2.7.B) provide for including such ideas in alternatives, but they must be reasonable. Often times a planning team will dismiss these ideas from further consideration. For example, building a tramway in designated wilderness is usually not an option that will be considered given the anticipated substantial level of impact. The public should be advised of the nature of the information included in this category and why it will not be carried forward in the planning process. However, the planning team could carry forward in an alternative a reasonable idea that is inconsistent with, for example, the park's enabling legislation.
<input checked="" type="checkbox"/> Ask: "Which remaining ideas, interests, and concerns are better addressed in another forum, such as public outreach or a future implementation plan? "	Not all of the interests and concerns about things that might be done in a park are GMP level issues — those that deal with specific programs (such as a backcountry permit system) or facilities (such as a particular campground) usually should be deferred to the next level of decision making. For example, operational issues, like the need to mow grass in front of the visitor center, are outside the scope of a GMP. Similarly, management directions to protect or restore degraded or threatened resources or values that do not raise GMP-level issues

7.1. Information and Analysis Needed before Alternative Development

Suggested Tools	Methodology
	<p>about the kind of place the park should be would more appropriately be addressed through implementation planning. The removal of invasive nonnative plants to maintain and improve a functioning ecosystem might be included in this category. It is appropriate to analyze alternative approaches to removal, but not as part of the GMP. In all of these cases, supporting rationale for dismissal needs to be provided to the public.</p>
<input checked="" type="checkbox"/> Ask, "Which of these remaining ideas, interests, and concerns constitutes or contributes to GMP-level issues (questions to be answered by the GMP)?"	<p>In general management planning the goal is to identify a set of desired resource conditions and visitor experiences for the various locations throughout the park. People's different points of view about those desired conditions and experiences frame the major questions to be answered by the GMP. However, there may be GMP-level issues implied in people's more specific interests and concerns. For example, if someone is concerned about a need for more campsites in a particular campground, that may indicate a GMP-level issue about the overall types and levels of overnight use in the park. Step back from the more specific issues and look for the broader questions.</p>
<input checked="" type="checkbox"/> Ask, "Do the ideas, interests, and concerns raise issues regarding competing legal or policy requirements, or a need for management action whose impacts might be highly controversial?"	<p>Three categories of ideas, interests, and concerns may generate decisions or key questions a GMP needs to address:</p> <ul style="list-style-type: none"> · Laws and policies for various resources or experiences may provide incongruent directions that must be prioritized or balanced. For example, the enabling legislation for Rock Creek Park requires that Rock Creek and its tributaries within the park and parkway be free flowing. However, existing dams are important cultural resources that are protected under the NHPA. Alternatives for resolving these overlapping mandates should be considered in the GMP. · Law or policy may allow for a wide range of actions to protect, rehabilitate, or restore degraded or threatened resources or values. These should be discussed in a public forum in compliance with NEPA. For example, a natural ecosystem or cultural landscape might be traversed by a U.S. highway. Many alternatives could be considered within law and policy, such as the development of mitigation measures to minimize adverse effects on resources, the reconstruction of the highway to reduce impacts, or the relocation of the highway to eliminate impacts. GMP alternatives provide a public forum for discussion of such alternatives and an analysis of their impacts before arriving at an appropriate decision. In another example, a cultural landscape might be threatened by a shopping mall on the park boundary. A variety of alternatives for protecting the landscape should be explored with the public and partners, and the environmental impacts of the

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Suggested Tools	Methodology
	<p>alternatives should be fully analyzed.</p> <ul style="list-style-type: none"> · Actions prescribed by law and policy may be highly controversial; this would be a trigger to begin a NEPA process that examines alternatives and involves the public. For example, the restoration of a naturally functioning ecosystem might require the closure of a popular area, which might be highly controversial.
<input checked="" type="checkbox"/> Keep a list of remaining interests and concerns.	<p>There will likely be some interests and concerns that do not relate to fundamental resources and values, and are not addressed by NPS laws and policies. For example, there may be some interest expressed in protecting a nonhistoric structure, or concern that restrooms are not clean. The park staff may want to take other actions outside the GMP planning process to address these interests and concerns.</p>

A by-product of this review of scoping comments can contribute to the identification and analysis of the park's fundamental and other important resources and values. External scoping will invariably provide additional information about the condition of, threats to, and stakeholder interests in the park's fundamental and other important resources and values, which will have been documented as part of the park's foundation statement. Additional resources or values may be added to these lists as a result of external scoping. The foundation statement should be updated with new information gained through external scoping and shared with the public as part of the GMP.

7.1.4 Resource, Experiential, and Land-Use Analysis

Data analysis is another important element to consider in developing GMP alternatives. Before developing alternatives, a planning team needs to understand and document existing resource conditions, land uses, and visitor experiences and activities in the park. The team also needs to determine resource constraints and identify visitor experience opportunities.

Although the following section of the sourcebook focuses primarily on landscape analysis, the analysis of experiential resources, uses and facilities, and resource concerns/sensitivity can also play an important role in the development of alternatives. For more information on these types of analyses, see *The Visitor Experience and Resource Protection Framework: A Handbook for Planners and Managers* (NPS 1997a). Available at <http://planning.nps.gov/document/verphandbook.pdf>.

General Considerations for Analysis

Mapping and landscape analysis are particularly germane to the identification of management zoning alternatives. Even though there are no set rules about how to analyze a park's natural, cultural, and social resources and values, the following methods are often used: (1) existing conditions analysis, (2) overlay or suitability analysis, and (3) field checking. Such analyses, when carefully planned and con-

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ducted, can allow planning teams to develop alternatives that minimize environmental impacts and improve visitor experiences. Too often in the past this step was short- changed in the schedule, and projects were set back because alternatives were formulated before existing conditions and suitability analyses were performed.

There is no cookbook approach to this analysis. Each situation must be evaluated and a process developed that suits the need and circumstances, the availability of data and technology, and the capabilities and experience of the planning team. The analysis now required for the park's foundation statement should ensure that GMP planning teams have information about existing conditions; however, they will still have to analyze resource suitability before developing alternatives.

The analysis begun during this phase of the planning will continue and be expanded on as part of the assessment of impacts of the alternatives (see also "10.3.4 Tools and Methodology for Impact Analysis".) What is collected, mapped, and analyzed as part of the development of alternatives may be different from what actually appears in the GMP/EIS or EA. Under NEPA only those park resources or human values that would be affected by one or more of the alternatives are described in the affected environment portion of the NEPA document. In those instances where an analysis early in the planning process leads to the avoidance of impacts on resources or values that might have been affected, those potential impact topics can be dismissed from further consideration and analysis with the following exception: Since the EIS or EA is also used for compliance with section 106 of the NHPA (which does not provide for omitting any cultural resources from consideration) all cultural resource types must be addressed in the EIS or EA (see "10.3.6. GMPs and Section 106 of the NHPA").

Suggested Tools and Methodology for Analysis

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Focus on what is most important.	The park's foundation statement will identify what is most important about the park (its fundamental and other important resources and values). These topics should be the focus of analysis through all phases of general management planning. The foundation statement will also include information about existing conditions and trends and what additional inventories and research are needed to support planning and decision making. The inventories and research needed to support general management planning decisions should be completed by this stage in the planning process.
<input checked="" type="checkbox"/> Use the people who know the resource best (researchers, park resource experts, traditional users, current visitors, etc.).	Find a way for them to provide input in a positive, collaborative manner. To facilitate the uncovering and sharing of information, understand as much as you can up front, then ask questions along the way to be sure you are adequately considering the resource or value. This process must be communicated to stakeholders to gain their confidence in the ultimate solution.

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Start and end with the identified issues.	<p>Review the situations, such as overlapping legal and policy requirements, which may require alternative ways of balancing or prioritizing those things that are most important about the park. The primary interpretive themes may also suggest alternative ways of prioritizing those things that are most important. Integrate these broad planning issues with the issues identified during scoping and any additional issues identified during the analysis of the park's existing facilities and infrastructure. (See "How Alternatives Are Identified," above.)</p> <p>Keep these issues in mind when determining what specific questions need to be answered by the landscape analysis.</p> <p>Once a set of preliminary alternatives has been identified, check to see that all the issues are addressed by the landscape analysis, if appropriate.</p>
<input checked="" type="checkbox"/> Make a list of specific questions that may need answers before the issues can be resolved.	<p>For example, "Where are use conflicts occurring now?" "Which areas have resources that are particularly vulnerable to visitor use?" "What specific resources or values may be affected by decision making to resolve the issues — and how might they be affected?" Developing at least an initial understanding of the questions will help focus the needed analysis.</p>
<input checked="" type="checkbox"/> Map the existing conditions.	<p>This analysis is critical to a basic understanding of a park, and it should be done before any further analysis. This task involves representing the pertinent characteristics of an area with text, symbols, and arrows on a map as a way of portraying natural and cultural resource values and conditions, land use and activity relationships, and existing opportunities and problems. It promotes an understanding of an area's characteristics and their possible implications for the plan.</p> <p>Examples of information to include are base information (such as vegetation, roads, trails), existing use nodes, exceptional resources, critical resource concerns, and key visitor use patterns and primary attractions. In some cases it may be necessary to document resource problems (such as degradation of air quality from concentrations of cars or snowmobiles) to justify addressing this problem in the GMP. In simple cases, information about existing conditions can be mapped or integrated with planning opportunities and constraints. In more complex situations it may be preferable to map and analyze opportunities and constraints separately.</p> <p>If the park staff, the public, or other stakeholders tend to think of the park in terms of distinct geographic areas, it is important to retain these distinctions when presenting the analysis, even though an important purpose of the analysis is to look at the park as a whole.</p>

7.1. Information and Analysis Needed before Alternative Development

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Identify the suitability of areas for various kinds of management and use.	<p>An overlay or suitability analysis is conducted to identify areas with particular predetermined characteristics that make them suitable or unsuitable for certain kinds of management and use. In past years this method was performed with transparent Mylar resource overlays. Today it is usually performed with GIS, both for efficiency and because analyses can be quickly rerun with different criteria. Types of overlay mapping include the following:</p> <ul style="list-style-type: none"> · Sieve or filter mapping, which identifies areas to be excluded because they are not suitable for a certain kind of management or use. · Sensitivity mapping (or resource sensitivity analysis), which grades the probable severity of impact. (The GMP for Palo Alto Battlefield NHS used this technique to overlay information about floodplains, habitat for threatened or endangered species, viewsheds, and historic resources. The areas with the fewest sensitive resources were identified as the best candidates for developed or high use zones.) · Attractiveness mapping, which identifies the best areas for different kinds of visitor experiences. (The GMP for Isle Royale NP used this technique to identify and overlay areas within a day's hike or boat ride from developed facilities, areas near key cultural features, and areas near interesting natural features. The areas with the most desirable characteristics were the most attractive candidates for frontcountry zones.) <p>These three types of mapping are often combined. Resulting maps sometimes have three general categories: attractive areas with few potential impacts, unattractive areas with few potential impacts, and attractive areas with many potential impacts. Although it is best to avoid development in the latter category, if you have few options, it may be possible to avoid or minimize impacts with careful planning and design.</p>
<input checked="" type="checkbox"/> Field check the landscape analysis conclusions.	<p>The purpose of field checking is to make sure that the preliminary ideas or alternative actions are feasible. At Isle Royale NP, for example, the park's backcountry management group field checked areas zoned to allow campgrounds with docks to determine if feasible sites existed.</p>
<input checked="" type="checkbox"/> Avoid analysis paralysis.	<p>Because general management planning focuses on the park as a whole, rather than on specific sites, information can be collected and analyzed at a parkwide level. For example, the team should know which park areas have a high potential for wetlands, but they do not need to know the exact location and classification of each wetland.</p>

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Suggested Tools	Methodology
	<p>Making decisions with the best available information may be better than making no decisions. If the team does not have complete data with which to do comprehensive overlay mapping, for example, it may be better to do the best they can with what they have.</p> <p>Conditions for decision making may be optimized by consulting experts, extrapolating information from analyses conducted for similar projects, substituting information about related resources or values if particular information is unavailable, and relying on field reconnaissance of specific sites if necessary. Much useful data may be available from sources outside the National Park Service, such as the U.S. Fish and Wildlife Service, the U.S. Geological Survey, state historic preservation offices, or the Federal Emergency Management Agency.</p>
<input checked="" type="checkbox"/> Develop and document a set of specific conclusions from the analysis.	<p>Time should be set aside in advance to do this step so that it is not overlooked. Discuss possible ways and appropriate times to use these conclusions in developing and assessing alternatives. If this step is overlooked, the analysis effort may be wasted. Once preliminary alternatives have been developed, check to be sure that they maximize attractiveness factors (like maintaining corridors for wildlife movement or providing a variety of settings) and minimize sensitivity factors (like wildlife habitat fragmentation or outside development that threatens prime viewsheds), as identified during the analysis.</p> <p>This is an important part of the planning process, and as such, it should be briefly described in the plan. Describe enough of the analyses and conclusions to demonstrate that a logical, trackable rationale was used to develop alternatives that would protect sensitive resource values while meeting visitor use goals. This discussion may reference a more comprehensive discussion in an appendix that describes the processes used to analyze the park resources and values and to develop alternatives. Stakeholders must understand what types of analyses were performed in order to have confidence in the decisions.</p>
<input checked="" type="checkbox"/> Understand the difference between analysis and value judgments.	<p>Geographic information systems do not determine values or make decisions; managers do. Do not expect a GIS analyst to make the value decisions in place of a manager. But good judgment is required to interpret and draw conclusions from analyses. An overlay analysis, for example, may indicate the presence of a very sensitive area, but professional judgment is needed to determine if immediate protection measures such as full-time closures are justified, or if further study of resources or potential impacts are more appropriate first steps.</p>

Use of GIS in Developing Alternatives

The use of geographic information systems (GIS) deserves special attention in the development of alternatives. GIS combines a powerful visualization environment with a strong analytic and modeling framework that is rooted in the sciences. The latest versions of GIS software allow users to help develop, map, and analyze GMP alternatives.

Use of GIS for alternative zoning and application of area- specific desired conditions is highly recommended for several reasons. In planning, GIS is necessary to conduct modeling to predict or quantify resource analysis efforts such as air dispersion, species habitat, or visitor circulation. GIS can be used to conduct suitability analysis of areas for various types of management and uses. Analysis may delineate areas that would be inappropriate for development because of endangered species habitat or steep slopes, for example. Another use would be for mapping visitor attractions, which identifies the most popular areas for visitors (showing where visitor service facilities would be more needed). This information can come from staff knowledge or field- digitized using a GPS (global positioning system).

The following table indicates several possible types of GIS analyses that can be done to assist in the development of GMP alternatives.

TABLE 7.2: EXAMPLES OF GIS MODELS

Model	Use	Possible Inputs
Species Habitat	Predict where suitable habitat for a sensitive species may exist	Slope, distance from water, vegetation types, etc.
Visitor Circulation	Predict possible congestion points	Roads, trails, attraction points, entrance and egress to an area
Suitability for Development	Illustrate areas where geophysical conditions would be suitable for new construction	Soils, slope, viewshed, floodplains, sensitive resources
Visual Resources	Indicate high-quality visual resources. Define the viewshed seen from a specific location (overlook, trail, etc.)	Digital elevation models (DEMs), visual resource data, viewpoints
Trail/Road Profiles	Planning for trails and roads	DEM, proposed route

GIS allows the planning team to overlay several different aspects of resource or visitor- related values in any combination to determine the best zones for a particular area. Exact acreages of the zones can be calculated to compare alternatives. The zone boundaries should be precisely set based on real- world features such as ridgelines, road offsets, disturbed areas, or habitat delineations. Metadata (data about the data) should be produced for any new GIS layers created. At the conclusion of the planning process, GIS files should be transferred to the park so that the staff can know exactly where the zone boundaries are on the ground.

For more information on the use of GIS in GMPs see “Overlay Mapping and GIS” under “10.3.4. Tools and Methodology for Impact Analysis” and the web sources in Appendix L. NPS regional GIS offices also are a good source of information on the applications of GIS.

7.1.5 Condition of the Park's Existing Facilities and Infrastructure

General management planning provides the opportunity for evaluating, on a large scale, the appropriateness of a park's overall development patterns, as they have evolved over time in response to various and changing conditions. Especially for large, complex parks with extensive visitor use and administrative facilities and infrastructure, general management planning offers an opportunity to step back and analyze the current priorities and conditions of facilities throughout the park and to consider the possibility of changing the current development patterns over the next 15 to 20 years to make them more consistent with what is most important about the park.

Two tools have been developed to help planning teams with this analysis, the asset priority index (API), and the facility condition index (FCI).


- The API can evaluate each of a park's facilities ("assets") in relation to the enabling legislation (purpose) of the park to determine its relative importance. The API worksheet is web-based and linked to the facility management software system (FMSS) used by all parks. Park staff answers a series of questions about each asset, and the worksheet calculates the API for each asset. After the superintendent approves the API, it is automatically added to the park's FMSS record. The questions in the API worksheet focus on five weighted criteria: asset status, resource preservation (natural and cultural), visitor use, park operations, and asset "substitutability." The questionnaire is designed to minimize subjectivity, and a 100-point scale is designed to reduce clustering and present a clear picture of relative asset priorities.
- The FCI is a simple measurement of a facility's relative condition at a particular time. The FCI produces a numeric rating by dividing the cost of correcting deficiencies in the facility with its current replacement value. The completed FCI of an asset's relative condition is also automatically added to the park's FMSS.

The relationship between an asset's API and its FCI is used to determine the most appropriate way to protect public investments in a park's facilities and infrastructure. In general, all facilities will fall within one of four quadrants: (1) high- moderate priority / good condition; (2) high- moderate priority / fair- poor condition; (3) high priority / serious condition; or (4) low priority. The most appropriate management strategies for each quadrant are listed in Figure 7.1.

For planning purposes, the most appropriate management for isolated, individual structures is best determined through implementation planning; however, broad patterns of high- or low- priority structures or of structures in good or poor condition should be considered in decisions about park zoning and desired conditions made during general management planning. The GMP alternatives may be where the FCI and API are used to help generate alternatives that propose to remove or stop maintaining certain facilities that are not high priority. For example, if a park has a complex of mostly low- priority structures and/or structures that are in a seriously degraded condition, managers should strongly consider preservation-oriented alternatives (consistent with the NHPA sec. 110), or if that is not possible,

then removing the structures and either restoring the site to natural conditions (a zoning change) or replacing the degraded structures with modern structures (which could also involve a zoning change if historic structures are being replaced with modern structures) should be considered. (For more details on API and FCI, and real property asset management and planning, see *DO #80: Real Property Asset Management* and *Reference Manual #80*, available on the NPS asset management intranet website at <http://inside.nps.gov/waso/custommenu.cfm?lv=4&prg=190&id=341>, and Appendix L in this sourcebook.)

FIGURE 7.1: MANAGEMENT STRATEGIES FOR PARK FACILITIES AND INFRASTRUCTURE

		Actions to Protect Investments			
Asset Priority	High	Preventative maintenance	Preventative maintenance and repair (fair condition) or rehabilitate (poor condition)	Heritage assets: Consider stabilization / restoration.	
				Non-heritage assets: Consider replacement	
				Low	Consider excessing or removal
		Consider excessing or removal	→	Strongly consider excessing or removal	
		Good	Fair	Poor	Serious
		Facility Condition			

7.1.6 The Park's Primary Interpretive Themes

The park's primary interpretive themes should be in the park's foundation statement and/or comprehensive interpretive plan. Chapter 6 discusses the importance and identification of primary interpretive themes. As noted later in this chapter, primary interpretive themes can be useful in identifying different management alternative concepts.

7.2 POINTS TO CONSIDER IN DEVELOPING ALTERNATIVES

In developing GMP alternatives planning teams need to consider several questions. What constitutes a "reasonable" alternative? What level of detail should an alternative address (e.g., parkwide, area-specific)? When should major new facilities be proposed? When should an alternative be dismissed from consideration? This section addresses these questions as well as identifying common traps to avoid in developing alternatives.

7.2.1 What Is a “Reasonable” Alternative?

Evaluating a full range of reasonable alternatives at the general management planning level involves looking at multiple possible approaches to overall park management and use. Although this may initially seem unnecessary or counterproductive for a well-established park, the *Park Planning Program Standards* direct that even in parks with strong management traditions and entrenched patterns of use and development, park staffs benefit from stepping back and reassessing the park’s overall goals, particularly if resources are threatened, sites are crowded, or the park’s built environment requires extensive rehabilitation or maintenance.

Those alternatives carried forward for evaluation in the GMP/EIS or EA must be consistent with the purpose of the park and developed with the protection of the park’s resources and values, including opportunities for visitor enjoyment, as the primary determinants. In other words, the alternatives should propose different approaches to achieving a park’s purpose, while at the same time protecting or minimizing impacts to the park’s resources and values.

At the outset the planning team may start by looking at a multitude of possible alternatives. However, when there are potentially a large number of alternatives, only a representative number of examples, covering the full spectrum of reasonable interests and concerns, need be analyzed and compared in the EIS or EA. In addition, the planning team will eventually move to consensus about a range of reasonable alternatives when various alternatives are eliminated as the planning/NEPA process progresses.

Additionally, CEQ criteria define reasonable alternatives as those that are economically and technically feasible (feasibility is an initial determination of whether or not the alternative is achievable and shows evidence of common sense). However, CEQ cautions not to pare the list of potential alternatives down to only those that are inexpensive or easy to implement. This caution is reinforced in the *Park Planning Program Standards*, which state that the decision-making discretion granted to park managers under the *NPS Management Policies 2006* does not extend to accepting less than optimal conditions for the park’s resources and values because of current fiscal, technological, or other limitations. (The term “optimal conditions,” as used in the standards, refers to the management and resulting conditions specified in the *NPS Management Policies*; the direction provided in the policies is that these conditions are to be achieved unless conditions in the park meet certain criteria, also specified in the policies, for alternative management.)

Constraints such as cost or even inconsistency with an existing law may be obstacles to implementing an alternative, but Congress may approve funding or modify a law. For example, Congress approved massive federal funding for a multibillion dollar intergovernmental initiative, in which the National Park Service is a key partner, to restore natural ecosystem functioning to the Florida Everglades. The threshold for “economic infeasibility” is never distinct and often depends on highly changeable circumstances.

7.2.2 Hierarchy of Management Directions in a GMP: A Tiered Approach

GMPs include several levels of management directions. The broadest level of direction is based on laws and NPS *Management Policies*, and it does not vary within a park or among parks (although the specific actions taken to implement these laws and policies may vary in different parks or in different management zones). Examples include NPS policies directing park managers and staffs to inventory resources and to monitor air quality, water quality, and the condition of cultural resources, which are basic and nondiscretionary parts of all park management strategies. Another example is NPS policies directing park managers to participate in regional planning efforts to improve air quality. These parkwide management directions may be implemented without considering alternatives and are typically articulated within the first chapter of the GMP, under NPS legal and policy requirements, or in an appendix.

The next layer of management directions found within a GMP is parkwide in scope, but could vary from park to park. This layer of guidance is often included in the alternatives chapter. These management directions may be the same for all of the action alternatives considered in a GMP, or they may vary between alternatives. However, the management directions are not tied to individual management zones or areas. Examples of such parkwide guidance could include: concessions, user capacity, education and interpretation, design guidelines or criteria for new campsites or trails, particular themes for resource programs, or mitigation measures. Here is an abbreviated example from the Mount Rainier GMP:

Mount Rainier poses considerable hazards to humans and facilities. . . . Based on available information, it is not possible to precisely predict when or where a debris flow or other geologic event is likely to occur in the park. Consequently, it is difficult to predict the actual risk to people in the park. Increased efforts would . . . be made under the preferred alternative to educate and inform visitors and employees about the threat of geologic hazards and what to do if a debris flow or other event occurred. Such efforts might include

- providing additional information in interpretive programs, including programs on the proposed shuttles.
- placing warning signs about possible geologic hazards along roadways and in high-risk areas throughout the park
- studying the possibility of building escape trails/routes where they do not currently exist
- developing literature jointly with the U.S. Geological Survey (USGS) that would notify visitors of possible risks and the best actions to take in case of a geologic event. . . .
- cooperating with the U.S. Geological Survey and others in monitoring geologic hazards in the park

The parkwide directions may also extend beyond the park boundary (e.g., using information systems to inform visitors on various opportunities before they reach the park).

The third tier of guidance is provided by management zones. The zones provide desired conditions and experiences, covering management of natural and cultural resources, visitor use, and the kinds and levels of management, access, and development. This level of guidance is discussed in more detail later in this chapter.

The final tier of guidance in a GMP is area- specific desired conditions. These statements provide more detailed desired conditions for specific geographic areas, locations, features, or facilities. This level of guidance is discussed in more detail later in this chapter.

The lines that divide the above tiers may differ depending on the nature of the park and planning issues. Each planning team will need to work out where to place the guidance in their GMP.

By combining the management directions that can continue without considering alternatives with the directions included in the alternatives chapter, the park staff and all stakeholders are provided a holistic overview of how the park will be managed.

Guidance that is very detailed and specific is typically inappropriate at a GMP level. This guidance belongs in other implementation plans or environmental documents. For example, it may be appropriate to note the need for new pedestrian trails in a general area in a GMP alternative, but it usually is not appropriate to include the details on the specific length, location, and design of the trail.

7.2.3 Climate Change and GMP Alternatives

The NPS director has pointed out that climate change is potentially the most far-reaching challenge facing the National Park Service and its ability to leave America's natural and cultural heritage unimpaired for future generations. Climate change will affect park resources, facilities, and visitors, which in turn will affect resource management, park operations, and the way visitors use and experience parks. As of this writing, there are no laws or policies that provide direct guidance on addressing climate change, although additional guidance is expected in the near future. There is guidance that indirectly addresses climate change: Executive Order 13423 includes requirements for the reduction of greenhouse gases and other energy and water conservation measures. Department of the Interior Secretarial Order 3226 also requires each bureau to consider and analyze climate change impacts when undertaking long- range planning exercises and/or when making major decisions affecting resources.

In July 2009 the Pacific West Region issued its vision for climate change, directing that park operations in the region strive to become carbon neutral by 2016. Achieving carbon neutrality will require the reduction of carbon emissions and other greenhouse gases through energy conservation, an increase in renewable energy use, an increase in park carbon sequestration, and educating the public. The region's vision statement includes several planning management actions. Although these actions were aimed at Pacific West Region parks, all GMP planning teams should consider the following actions in developing alternatives:

7.2. Points to Consider in Developing Alternatives

- Consider the effect of GMP planning decisions on the park's ability to achieve carbon neutrality, including during the identification of desired conditions, development of alternatives, and selection of the preferred alternative.
- Examine appropriateness and necessity of adding new facilities, and consider alternatives to building new facilities, including enhancement or restoration/adaptive reuse of existing facilities, use of technology/interactive media, or other means to achieve desired conditions. Seek to minimize carbon footprint when considering new facilities, and seek carbon neutrality when feasible.
- Maximize park operations ability to adapt to changing conditions, such as: sea level rise, increased frequency and intensity of wildfire, and limited fresh water availability by including best- available data on potential climate futures and providing for flexibility in resource management. Consider adaptation to climate change as part of General Management Plan (GMP) Alternatives.
- Establish transportation systems, using alternative fuels, and non- motorized access opportunities where appropriate. Consider travel distances when siting facilities.

Finally, planning teams may want to recognize in GMPs the need for adaptive management in addressing the myriad effects of climate change, both during the 15- to 20- year life of the plan and beyond. Depending on the magnitude and timing of climate change, and the resulting changes that occur in the park, the National Park Service may need to either take additional actions consistent with the management directions in the GMP, or if necessary replace the plan. In all cases appropriate environmental compliance would occur before new actions are taken.

7.2.4 When to Propose New Facilities

GMP alternatives often propose new facilities for various reasons. Planning teams need to carefully consider that the House Appropriations Committee (House Report on the FY 99 Appropriations Bill) has expressed extreme concern about the cost and size of proposed visitor centers, heritage centers, and environmental education centers being proposed in many GMPs. In that report Congress said:

The Committee is concerned that GMPs have become unrealistic documents which tend to include expensive “wish list” projects which may not be essential to the central mission of the unit. The Service, as part of the reforms being instituted for the Denver Service Center, should give careful thought to the contents of these documents as new plans are created and existing plans are updated. The Committee discourages expensive, over- designed visitor centers or non- essential structures and cautions the Service about costly partnership projects which may serve the non- Federal partner’s desires to a greater extent than the park’s needs. The Committee directs the Service to develop a new National policy regarding GMPs as part of the Denver Service Center reform implementation.

This message was restated in more direct terms in both the Conference and House reports accompanying the NPS FY 02 appropriations bill. The Congress expressed

“extreme concern” about the cost and size of proposed visitor centers, heritage centers, and environmental education centers and admonished the National Park Service for ignoring previous concerns expressed by the committees.

In response to these concerns the National Park Service has adopted management policies emphasizing that facilities should be developed in parks only when they are necessary and that “only development projects that are shown to be an appropriate use of funds and economically feasible will be approved.” Although the new standards for GMPs caution against making specific development proposals, these plans still address “appropriate kinds and levels of development” for each management zone and the kinds of changes needed to achieve and maintain those levels. If it appears that achieving the desired conditions in a particular alternative would require a major visitor center, heritage center, or environmental education center, the alternative would be scrutinized closely for economic feasibility.

7.2.5 Use of the Facility Planning Model

If an alternative contains a recommendation for a new facility, the project team will need to use the NPS facility planning model in some cases to generate size requirements. Currently tools for visitor centers and maintenance facilities have been developed, and a similar model has been used for curatorial storage facilities.

The facility planning models are used in determining square footage but they do not generate costs. Their utility is to define acceptable ranges of space for various functions (such as, in the case of a visitor center, cooperators and concessions space, libraries, administrative space, curatorial storage). The models were developed after a review of experience in other agencies and the private sector, and they provide a standardized basis for assessing whether projects are “reasonable” in terms of scope and cost. They can be used to identify cases where initial project plans appear to be exceeding reasonable expectations and where they would need to be modified. (The model’s outcome, estimated square footage, also provides key input into cost estimates; see Chapter 9.)

For a visitor center the model is a program based on the answers to a series of questions about the park, anticipated visitation, and what will be housed within the facility. The questions are answered by a project team member, most often a park staff member. The request to have the model run must be submitted by the park. The contact for the models is WASO Construction. Final model runs for any proposed park facility in the GMP preferred alternative must be approved by the NPS WASO construction program management office after recommendation by the regional office. Visitor center concepts in GMPs should be consistent with the models.

7.2.6 Common Traps to Avoid in Developing Alternatives

The Trap of the Preferred Alternative

There is a natural tendency for team members to want to develop the alternative they see as the preferred alternative — as opposed to developing a range of reasonable alternatives that may or may not be preferred. Many times planning teams include much more detail in the preferred alternative than in the other alternatives. NEPA

requires that the level of detail be the same for each alternative. Teams should be striving to develop a range of reasonable, viable alternatives, not to select a preferred alternative in this step of the planning process.

The Trap of Details

There is another natural tendency to want to provide as much detail as possible, particularly for the preferred alternative once it has been identified. Park staff and the public often want to know exactly what facilities will be built, where they are going to go, how big they will be, when they will be built, etc. Also, the more detail provided in an alternative, the easier it is to assess impacts and to estimate costs. But as specified in the *Park Planning Program Standards*, a GMP should not include implementation level planning. At the GMP level, the park staff and the public need to focus on parkwide management concepts, resource conditions, and opportunities for visitor experience, and not be distracted by details of specific facilities, projects, or programs, which may change over the life of the plan. GMPs must allow for management flexibility over time to adjust activities to reflect new information and changing circumstances. There is a tension between providing sufficient detail to understand the differences among alternative management approaches and providing too much detail that will make the plan obsolete if specific facilities, projects, or programs prove not to produce the desired resource conditions and visitor experiences. But generally the planning team needs to resist the natural urge to overload alternatives with too much detail, distracting agency and public attention away from the overall alternative concepts.

The Trap of Current Issues

When a park staff requests a GMP there are usually a number of issues or specific problems that the staff wants the GMP to address and resolve. Some of these are GMP issues; others are not. The purpose of the GMP is not to resolve all the park's specific existing issues, but to provide a rationale for decision making (issue resolution) over a relatively long term (15–20 years). If a GMP addresses only existing issues it will become prematurely outdated and irrelevant if another issue, which was not anticipated during the planning process, comes into play 10 years down the road (an example could be a new potential use or mode of transport that didn't exist at the time a GMP was written). Again, there is a tension between addressing existing pressing issues and providing the general direction and guidance that will be needed to address future issues that haven't been thought of yet.

The Trap of Current Infrastructure

Many park staff often take as a given that a park's existing infrastructure (roads, trails, visitor centers, parking areas, etc.) are not going to change — that they are locked into what they have. It is true that in these times of tight budgets the building of major new facilities needs strong justification; however, so does the retention and maintenance of existing facilities that are either of a low priority or in poor condition. The planning team should not fall into the trap of assuming that all existing infrastructure is a constant for all alternatives. If there is a good, reasonable justification for removing, relocating, or building new facilities, and the justification is held

up by the API/FCI analysis or other relevant factors, the alternatives should propose changes in the status quo. Facility development needs to be considered carefully, in light of the ongoing concern over the high costs of facilities discussed above, and the GMP should clearly present the rationale and need for new facilities.

7.2.7 Dismissal of Alternatives

The DO- 12 Handbook (sec. 4.5.E.6) provides guidance on reasons for eliminating an alternative. This is a required part of the GMP/NEPA document, following the description of the alternatives retained for analysis. These are alternatives (or management actions) initially thought to be viable but later dismissed. The planning team needs to briefly provide in this section the reasons why the alternatives were eliminated, and fully document supporting reasons in the administrative record. Reasons to dismiss an alternative include:

- technical or economic infeasibility
- inability to meet project objectives or resolve need (i.e., the purpose and need of the GMP)
- duplication with other, less environmentally damaging or less expensive alternatives
- conflict with an up- to- date and valid park plan, statements of purpose and significance or other policy such that a major change in the plan or policy would be needed to implement
- too great an environmental impact (any alternative that would result in the impairment of park resources or values must be automatically rejected from further consideration)

7.3 ELEMENTS TO BE INCLUDED IN EACH ALTERNATIVE

Each alternative plan must meet the program standards for the major elements of a GMP, including

- an overall management concept
- potential boundary modifications, if any (see the separate discussion under “4.1.4. Potential Boundary Modifications”)
- management zoning decisions about which potential resource conditions and visitor experience opportunities should be emphasized in particular areas of the park
- area- specific desired conditions for various locations throughout the park, including the desired resource conditions, associated visitor experience opportunities, and the appropriate kinds and levels of management, development, and access
- the changes needed to move from the existing to the desired conditions
- indicators and standards for managing user capacity within each area (see the separate discussion in “8.3. Indicators and Standards for User Capacity”)

- projected implementation costs (see the separate discussion in Chapter 9)

Most of these elements are discussed below, followed by a discussion of “Special Considerations for the No- Action Alternative.”

7.3.1 Management Concepts

The management concept, which is different for each alternative, makes a convincing case for the kind of place the park should be — its overall character in terms of emphasis on particular kinds of resource conditions and associated visitor experiences. Broad differences in opinion about the overall character of the park are considered through alternative management concepts.

Planning teams usually identify several concepts that address the issues identified during scoping in largely different ways. These concepts guide how the planning team zones the park in each alternative to carry out the particular concept. The analysis of alternative zoning plans allows the planning team and the public to explore these different approaches to park management and their associated impacts before identifying a preferred alternative.

A key to creating good alternatives is to come up with alternative management concepts that reasonable people can agree are reasonable. This criterion tends to eliminate the “extreme” visions for park management and use that do not realistically consider the range of stakeholder interests in parks. Management concepts can allow for a wide range of stakeholder interests while expressing a rationale for why and how those interests are combined in a certain way. It is not feasible or practical to develop an alternative plan that would completely fulfill the expectations of individual stakeholders. However, stakeholders should be able to find portions of one or more alternative plans that reflect at least some of their opinions about the kind of place the park should be.

Another key to creating good alternatives is to come up with alternative management concepts that are convincing. The *Park Planning Program Standards* specify that management concepts should “eloquently and persuasively describe the kind of place the park should be.” This helps the team ensure that it develops a range of reasonable alternatives, rather than a set of “strawman” alternatives that tend to support preemptive decision making.

Management concepts should also be understandable and succinct.

Definition and Program Standards

Definition	Program Standards
A brief, inspirational statement of the kind of place the park should be (a “vision” statement)	Management concepts eloquently and persuasively describe the kind of place the park should be

Suggested Tools and Methodology for Developing Management Concepts

Suggested Tools	Methodology
<input checked="" type="checkbox"/> When describing management concepts, stay focused on what resource conditions and visitor experiences should be achieved in the park, not on how they might be achieved.	<p>Common pitfalls to avoid are alternative concepts that consider whether the park should have “few, some, or many facilities” or whether the plan should be implemented primarily through “federal funding, partnerships, or a combination of the two.” These are not the most important questions for the park in setting overall direction for the future. The most important questions should focus on what results should be achieved.</p>
<input checked="" type="checkbox"/> Consider whether the primary interpretive themes suggest different management concepts.	<p>Alternative management concepts may revolve around which of the park’s primary interpretive themes is emphasized in some or all locations of the park. An example of alternative concepts emphasizing various interpretive themes is included in Appendix F.1.</p>
<input checked="" type="checkbox"/> Avoid alternative management concepts that consider whether the park should be managed as a “natural area, cultural area, or a balance between the two.”	<p>Such a question should be answered by the park’s purpose and significance. It should also be remembered that almost every park consists of natural and cultural resources that are inseparably connected, reflecting the influences of natural and cultural processes, and that are best understood and managed in inter- and multi-disciplinary ways.</p>
<input checked="" type="checkbox"/> Avoid alternative concepts that imply that maximum resource protection and maximum visitor enjoyment lie at opposite ends of a continuum.	<p>Such approaches do not allow for consideration of the variety of experiences that might be possible without unacceptably affecting resources, so long as appropriate controls are in place. For example, in a natural system sustained by natural processes a relatively small number of visitors could have a relatively unstructured experience, or a relatively large number of visitors could have a relatively structured experience (guided tours only, stay on the boardwalk) with the same net effect on the resources.</p>
<input checked="" type="checkbox"/> Keep the alternative concepts “pure” so that the differences among them are easy to discern and evaluate.	<p>At this stage of planning, avoid the temptation to develop a hybrid alternative that borrows something from all the other alternatives, even though the actual plan may do that.</p>
<input checked="" type="checkbox"/> Develop no more than four new alternative concepts, if possible.	<p>Five alternative concepts is probably the maximum number that people can comprehend and follow through a planning process. Since one alternative must be the no-action alternative, that means no more than four new concepts.</p>

It is rare when only one approach to park management and use can be reasonably considered, and it is not recommended because NEPA regulations and sound management require the consideration and analysis of all reasonable alternatives, even if they require legislation to accomplish. However, if the team determines that only a

single concept can reasonably be considered, it will still be useful to identify the proposed concept, describe the resulting resource conditions and visitor experiences, and compare those conditions and experiences to the current conditions (a no-action alternative). In these cases the GMP should be relatively simple and noncontroversial.

Examples of alternative concepts are included in Appendix F.2.

7.3.2 Management Zoning

General Considerations

Management zoning is the method used by the National Park Service to identify and describe the appropriate variety of resource conditions and visitor experiences to be achieved and maintained in the different areas of a park. Zoning is generally a two-step process: (1) identify a set of potentially appropriate management zones, and (2) allocate those zones to geographic locations throughout the park. Differences in opinion about the best kinds of resource conditions and visitor experiences for particular areas are addressed through alternative zoning plans.

Public Perceptions Associated with Park Management Zoning

The National Park Service has used the concept of management zoning for decades to indicate the management emphasis for various areas within a park. NPS *Management Policies* call for management zoning as a major part of GMPs. Other federal land managing agencies also use management zoning in their planning for the public lands.

Most Americans are familiar with the term *zoning*. And whether they support the concept or not, most understand that zoning has to do with regulating land use to enhance some uses while limiting others. Almost all municipalities and many counties administer some sort of zoning plan.

Sometimes people confuse NPS zoning of public lands with local government zoning of private lands. They oppose — rightfully — federal government intervention in private land use issues that are appropriately resolved at the county or municipal level. Years ago, the National Park Service contributed to this confusion when it sometimes identified “buffer zones” outside park boundaries (overlying private lands). Although the intent was to work with local officials to promote local zoning that would be compatible with the protection of park values, many people either misunderstood the intent or believed it to be an inappropriate extension of federal interest outside park boundaries. The identification of “buffer zones” is no longer practiced by the National Park Service.

More often, people who oppose the term zoning disagree with the concept of zoning. They dislike local government zoning of private land because it interferes with their freedom of choice, and they dislike federal government zoning of public land for the same reason.

Planning teams should be sensitive to the issues surrounding this concept and term. If the use of the term management zoning becomes disruptive to the planning

process, other terms (land classification, management areas, etc.) may be more effective ways of expressing and implementing this concept.

Definition and Program Standards

Definition	Program Standards
The application of various management zones (integrated sets of resource conditions and associated visitor experiences) to various geographic areas throughout the park, intended to provide for a variety of resource conditions and visitor uses that are compatible with the park's purpose and preserve its fundamental resources and values.	<p>Management zoning</p> <ul style="list-style-type: none"> · provides for some variety of resource conditions and visitor experiences consistent with the park's purpose and significance and the different inherent characteristics (especially of fundamental resources and values) of different geographic areas throughout the park · establishes an overall character for the park, consistent with a distinctive management concept, by emphasizing some potential conditions and experiences over others · reflects decisions about which resources and values are preeminent in each particular area of the park · considers the relationships among resources and experiences in adjacent zones and in areas outside the park boundaries · is prescriptive, rather than descriptive (may zone an area for the continuation of existing conditions or may zone it for a dramatic departure from what currently exists)

Identification of Potential Management Zones

Potential management zones describe compatible combinations of desired natural resource conditions; cultural resource conditions; associated opportunities for visitor experiences; and the kinds and levels of management, access, and development that are appropriate to achieving the desired conditions and experiences. They recognize that no single aspect of the park can be divorced from the others — they are too closely related and interdependent.

The differences among a park's potential management zones may be extreme or subtle. They may describe conditions ranging from wilderness to intensively developed "villages" of visitor amenities (for example, in Yosemite) or conditions ranging from a rehabilitated building space with public access to a preserved building space without public access (for example, Mary McLeod Bethune Council House NHS). The purpose of identifying a range of potential management zones is to consider the broadest range of options possible about potentially appropriate kinds of resource conditions, visitor experiences, access, and development. In parks where the range is wide, subtle distinctions within the management zones should be deferred to implementation planning. Otherwise opportunities to consider significantly different alternative futures might be overlooked in favor of considering the details of one approach to park management.

In considering the range of potential management zones, decision makers are constrained by the decisions already made through law and the NPS *Management Policies*

7.3. Elements to Be Included in Each Alternative

2006. Regarding the natural resource component of management zones, the NPS policies generally require nonintervention in natural system functioning; however, they allow for intervention under several specified circumstances, including “when a park plan has identified the intervention as necessary to protect other park resources or facilities.” General management planning is the appropriate process for making such determinations. One or more of the potential management zones developed for a park may call for some degree of intervention into natural system functioning, either to protect cultural features or to mitigate the effects of supporting an important visitor experience with access, facilities, and programs.

Similarly, the NPS policies generally require the preservation of cultural resources in their existing states, but they allow for other treatments, specifying that “decisions regarding which treatments . . . will be reached through the planning and compliance process.” Therefore, one or more of the potential management zones developed for a park may call for the rehabilitation, restoration, or even removal of cultural resources, either to protect or enhance other cultural or natural resources or values or to support a certain kind of visitor experience. Any proposal for a particular treatment of cultural resources must meet the conditions outlined in *NPS Management Policies* and the *Secretary's Standards for the Treatment of Historic Properties* (NPS 1996a). These criteria should be explained in the GMP.

NPS policies governing visitor use of the parks state that the primary means of fostering public enjoyment will be through interpretive and educational programs. However, they also state that the National Park Service will “to the extent practicable, afford visitors ample opportunity for inspiration, appreciation, and enjoyment through their own personalized experiences, without the formality of program or structure.” Therefore, the potential management zones developed for a park may consider outstanding opportunities for interpretive and educational programs and also opportunities for a variety of personalized experiences, which may vary widely from visitor to visitor.

Good potential management zones underscore the fact that quality park experiences depend on well- preserved and protected resources and that opportunities for visitor enjoyment are some of the best ways to ensure public support for resource preservation.

The level of detail used to describe potential management zones may be general or specific. General zone descriptions might include broad statements about desired “natural resource conditions,” “cultural resource conditions,” “visitor experience,” “appropriate types and levels of access,” and “appropriate types and levels of development.” Specific zone descriptions might include more detailed desired conditions for each of the park’s fundamental resources and values or for certain combinations of resources and values. These more specific descriptions can be done for specific geographic areas, locations, or features that are consistent with the zone (see below). An example of potential management zones is included in Appendix F.3.

Suggested Tools and Methodology for Identifying Management Zones

The following methods and tools describe a process for combining various potentially desirable resource conditions and compatible visitor experiences into potential management zones. A table (see Table 7.3) is a useful format for organizing the information.

TABLE 7.3: SAMPLE MANAGEMENT ZONES TABLE

	Zone 1	Zone 2	Zone 3	Zone 4
Natural and cultural resource conditions (add subheads)				
Visitor experiences (add subheads)				
Appropriate kinds and levels of management, access, and development (add subheads)				

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Assemble the planning team.	Potential management zones and alternative zoning allocations are generally best developed by the planning team, then reviewed and refined by larger groups and the public. It is critical to involve a cross section of resource managers and individuals who interact with park visitors, since the management zones will direct and affect all the park's fundamental and other resources and values, including opportunities for visitor experiences and associated types and levels of access and development.
<input checked="" type="checkbox"/> Consider a "menu" of potential management zones before actually mapping them (that is, before developing management zoning alternatives).	<p>Identifying an appropriate range of potential management zones before tying them to specific geographic areas helps ensure that a full range of reasonable combinations of resource conditions and associated experiences is considered, rather than simply those combinations that currently exist within the park. Some combinations may already exist in the park, but others may not. Potential opportunities may be missed if the team is narrowly focused on what is, rather than on what could be.</p> <p>A good way to start this step is to look at the purpose and significance statements, the fundamental resources and values, the interpretive themes, the potential for conflict among those things that are most important about the park, the condition of resources and infrastructure, and the list of people's interests and concerns identified during scoping; then group those things that are mutually supportive into potential management zones.</p> <p>The names of the zones are relatively unimportant, but they should describe as closely as possible the particular combinations of resource conditions and visitor experiences that fit within that management zone. (Avoid naming them for the kinds and levels of development</p>

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Determine the appropriate level of detail for the potential management zones and develop a table to begin characterizing and comparing the desired conditions for each potential zone.	<p>they might support, since that is secondary consideration to the resource conditions and experiences.)</p> <p>Using a table format to develop potential management zones helps ensure that all the zone descriptions are complete and easily comparable.</p> <p>List the potential management zones across one axis of the table. List the desired conditions to be compared (e.g., natural resource conditions, cultural resource conditions, visitor experiences, types and levels of access, types and levels of development) along the other axis. (See “Idea List for Desired Conditions” below).</p> <p>The team may want to experiment with several levels of detail for the left-hand column before determining which will be most meaningful to the next stage of alternative zoning plan development. For parks with relatively short lists of fundamental resources and values, it may be most useful to fully describe how each would be managed under each potential zone to provide the most comprehensive basis for developing zoning alternatives. For parks with relatively long lists of fundamental resources and values, it may be most useful to develop more general potential zone descriptions and to defer the development of guidance for specific fundamental resources and values until after the zones have been allocated to particular locations (which may include some fundamental resources and values but not others).</p> <p>The Saguaro NP GMP example included in Appendix F.3 illustrates several levels of detail, including “overall natural and cultural resource condition” and conditions for particular categories of resources, such as “vegetation.” Some but not all of the park’s fundamental resources and values are specifically addressed in the table.</p> <p>Appendix F.5 includes examples of some types of visitor activities and facilities that were considered by the Little River Canyon NPre and Virgin Islands NP planning teams for their management zones. A planning team may want to consider similar lists in developing management zones. (Although the level of detail in these tables may go beyond what many planning teams will address, park staffs may find this useful for park management.)</p>
<input checked="" type="checkbox"/> Clearly distinguish the differences among the potential management zones in ways that will be meaningful to park managers and understandable to all stakeholders.	<p>As the planning team moves through this process, some team members will tend to be “lumpers” and some will be “splitters.” The group will need to avoid going to extremes in either direction. Lumpers can make the management zones useless by including so much variability that the management direction is not clear. Splitters can bog down the process by trying to define different management zones for every different activity (for example having separate zones for camping, hiking, and horseback riding when all three may be appropriate kinds of visitor use in a single zone managed to give</p>

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Acknowledge, wherever appropriate, that desired conditions might not be achieved and that there may be an acceptable level of impacts on resources or values.	<p>visitors an opportunity to experience wild lands with opportunities for challenge and adventure).</p> <p>Because of the interrelationships among park resources and visitor use and experiences, the desired condition for a particular resource or value in a particular zone may not be achieved without tradeoffs to other resources or values. For example, the desired condition for a historic structure might be to relocate it rather than to stabilize a naturally eroding shoreline that threatens to destroy the structure. Relocation would not be the desired condition for a historic structure, but it could be the desired condition under a particular alternative zoning scheme, to be evaluated as part of general management planning.</p> <p>For another example, a desired condition for a natural system might preclude human access and use, while another desired condition might allow for such use. Consider the following alternative desired conditions for a coral reef under two different management zones. In a "protected natural area zone" the desired condition might be that "coral reefs are protected in nearly pristine natural conditions. The reefs are sheltered from inadvertent or intentional harm from human activities by closing the area to visitor use in order to preserve this fundamental resource in a naturally functioning ecosystem so as to serve as an indicator of system health." In a "natural wonder zone" the desired condition for the same community might be that "coral reefs are protected to the maximum extent possible while still allowing for visitor use of the area." This condition recognizes that some negative effects to the reef are likely from inadvertent or intentional human activity, but measures will be in place to ensure maximum protection.</p> <p>In a similar example, the desired condition for a geyser basin might be to accept the disruptions to natural hydrologic and geothermal processes caused by runoff from hard surfacing, rather than to modify the access and support facilities that allow millions of visitors to view a beloved American icon. Disrupted natural hydrologic and geothermal processes would not be the desired condition for the geyser basin, but after considering the tradeoffs it could be determined, through the general management planning process, to be the desired condition for one type of management zone.</p> <p>Such management decisions, allowable within the bounds of specified criteria under NPS policies, must be made in almost every park. One key to developing good potential management zones is to capture the implications of those decisions for agency and public review and understanding.</p>

7.3. Elements to Be Included in Each Alternative

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Avoid including incompatible conditions and experiences in the same zone.	Describing the experience as being “either highly active and social, or quiet and introspective, depending on the day of the week” may describe existing conditions, but it does not provide management direction for the future.
<input checked="" type="checkbox"/> Look at management zones used for other parks, and then modify and build on them to fit the park’s purpose, significance, mandates, and those things that the National Park Service and the public want to achieve in this particular park.	Use information from other parks to generate ideas for possible management zones and desired conditions tailored to a particular park’s needs and situations. (See PEPC for additional examples of management zones in GMPs.)

Another tool to help planning teams in developing management zones is presented below. The following idea lists describe the kinds of considerations that may be appropriate for identifying and describing the desired conditions, including resource conditions, opportunities for visitor experiences, and the appropriate kinds and levels of management, development, and access, for zones throughout the park. Once the zones have been allocated to specific areas, the discussions of desired conditions can focus on the fundamental and other important resources and values present in the area, elaborating on them as appropriate to provide useful management direction. Keep in mind that while some planning teams may want to address some or many of these topics in this level of detail in their management zones, other planning teams may choose to address some of these desired conditions by topics in another part of the plan (e.g., under parkwide management directions).

TABLE 7.4: IDEA LIST FOR IDENTIFYING AND DESCRIBING DESIRED CONDITIONS
(Focused on Fundamental and Other Important Resources and Values)

Natural Resource Conditions	
Ecological Communities	<ul style="list-style-type: none"> Habitat attributes, including <ul style="list-style-type: none"> · structural complexity · diversity · connectivity of habitats inside and outside the park Biological processes, including <ul style="list-style-type: none"> · nutrient cycling · purification services Biotic interactions, including <ul style="list-style-type: none"> · predator/prey relationships · native/exotic species interactions Natural disturbance regimes, including <ul style="list-style-type: none"> · fire · flood · earthquake · outbreaks of native pests or disease · avalanche · landslide · storm erosion Population health of specific species <ul style="list-style-type: none"> · threatened/endangered species

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Natural Resource Conditions	
	<ul style="list-style-type: none"> · endemic, rare species · migratory species
Hydrologic Processes and Features	Hydrologic features, including <ul style="list-style-type: none"> · springs · wetlands · major water bodies Hydrological interactions, including <ul style="list-style-type: none"> · surface/subsurface interactions in wetlands Hydrological processes, including <ul style="list-style-type: none"> · water flow dynamics · nutrient/temperature regimes · flood events
Geologic Processes and Features	Geologic processes, including <ul style="list-style-type: none"> · shoreline/barrier island formation · soil/rock erosion Geologic features, including <ul style="list-style-type: none"> · karst/cave formations · dunes · arches · soils
Soundscapes and Lightscares	Levels of natural ambient sound Night skies
Air Quality Related Values	Visibility Air quality standards
Cultural Resource Conditions	
Archeological Resources	Overall desired condition Related treatment (research, consultation, preservation, protection) Relationship to archeological and other cultural resources located in other zones
Cultural Landscapes	Desired character of the landscape and the nature of the landscape integrity the National Park Service seeks to protect (such as a prehistoric/historical continuum or a specific period of time) Desired condition and related treatment of significant physical attributes, biotic systems, and uses that contribute to the cultural significance of the landscape The relationships between the natural and built characteristics and features of the cultural landscape The desired condition of the appropriate specific features that further define the desired condition of the cultural landscape
Ethnographic Resources	The overall desired condition of important ethnographic resources, including sacred sites The descent groups and/or communities that are associated with these resources The specific condition of the resources and the level of support for traditional access and use
Historic and Prehistoric Structures and Ruins	The overall desired condition and related treatment The specific conditions expected to result from the treatment (e.g., four farm outbuildings with their external facades restored to their 1867 appearance) The level of alteration that would be permitted for noncontributing additions and/or adaptive reuse
Museum Collections	The desired condition of objects, specimens, and archival and manuscript materials The desired level of access to the collections

7.3. Elements to Be Included in Each Alternative

Visitor Opportunities	
Opportunities to See / Experience Outstanding Natural and Cultural Features/ Processes	The prominence of the feature in relation to visitors' activities and interactions in the zone How close or involved visitors are to touching, seeing, and feeling natural and cultural surroundings and points of interest
Opportunities to Understand Natural and Cultural History	The important historical, cultural, and natural resource themes that would be emphasized Opportunities for participating in formal educational opportunities
Opportunities to Experience Meaningful Visitor Perceptions	Specific things visitors might feel, see, and hear in relation to natural and cultural resources when they enter and move through the zone The desired perceptions of wonder, adventure, discovery, isolation, remoteness, social affiliation, competitiveness, etc., related to the specific resources within the zone Opportunities for interacting with other users (including diverse types) and park staff (rangers, guided tours, commercial guides) Any differences in the magnitude of interaction at attraction sites versus along travel corridors Any differences in experience to diverse groups based on ethnicity, age, experience, socioeconomic level, etc.
Opportunities to Share Cultural Heritage with Others	Opportunities for visitors to interact and share their cultural heritage The prominence of this activity in relation to other activities that may be planned for the zone
Opportunities for Recreational Activities or Special Uses That Are Uniquely Suited to and Dependent on Park Fundamental Resources and Values	The character of the recreational activities (e.g., technical climbing on Devil's Tower NM or viewing the Liberty Bell at Independence NHP) or special uses (e.g., subsistence hunting in the Alaska preserves) Uses or types of uses that may not be permitted based on particular resource sensitivities
Management, Development, and Access	
Visitor Use Management	Level of structure imposed, including <ul style="list-style-type: none"> · level of opportunity for visitors to participate in spontaneous recreation activities and movement versus more structured and formalized schedules and movement · the degree to which visitor use may be managed either indirectly or directly to protect visitor safety, experiences, and resource conditions, and what effect that management may have on visitors' perceptions of their experiences · any particular locations where visitor use restrictions may primarily occur (e.g., access points, camping areas, or park entrances) · the density of use throughout the zone (e.g., concentrated near facilities or dispersed throughout the zone). Level of effort, risk, time, and skill required, including <ul style="list-style-type: none"> · whether activities and interpretation of the landscape are facilitated for visitors or visitors must depend on self-reliance and knowledge of the landscape to traverse the area safely and with minimal impact to the environment · the required level of physical exertion · the visitors' level of risk and risk responsibility · the desired time commitment for visitors to participate in recreation or education opportunities · whether the area accommodates day use and/or overnight use, and which type of use is emphasized when planning

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Management, Development, and Access	
	<p>facilities and providing recreation opportunities</p> <p>Evidence of management and visitor use activities, including</p> <ul style="list-style-type: none"> · the level of subtlety of resource management activities and facilities to the casual observer · how apparent signs of impact from recreation activities (e.g., bare soil on campsites, widening of trails) may be to the casual observer <p>Level of education, interpretation, and orientation provided, including</p> <ul style="list-style-type: none"> · links between interpretive themes, specific resources, and experiences (e.g., "opportunities for interpreted views of cliff faces with strata, river beds, unconformities, talus slopes, etc.") · the intent of educational and interpretive materials and programs in achieving these links (e.g., "Help visitors engage in critical thinking about specific historical/cultural/natural themes or issues.") · the levels/intensities of orientation information provided on and off site
Resource Management	<p>Level of management, including</p> <ul style="list-style-type: none"> · the degree and extent of management actions permitted and encouraged to protect and rehabilitate significant resources · the focus of management activities (e.g., custodial management vs. allowing natural processes, vs. restoration of natural processes) · how visible management actions will be to casual observers <p>Research activities, including</p> <ul style="list-style-type: none"> · the level of importance of the area for baseline resource inventories, cultural and natural resource research, social science research, and long-term ecological observations · the level of effort for identifying research needs and implementing research programs
Development	<p>Facility types, such as orientation/education facilities, recreation facilities, support facilities, and administrative facilities</p> <p>The desired character of the developed area(s) (e.g., primitive with little or no site management or highly developed with well delineated boundaries)</p> <p>The extent of the development footprint within the zone (e.g., "clustered at not more than two locations within the road corridor" or "no development within 100 yards of any shoreline")</p> <p>The emphasis placed on blending the facilities with the natural or cultural surroundings</p> <p>The employment of green building techniques</p>
Access	<p>Level of accessibility, including</p> <ul style="list-style-type: none"> · The level of access provided to disabled visitors, and how the level of accessibility may differ for existing versus new structures <p>Primary modes of transport, including</p> <ul style="list-style-type: none"> · whether the primary means of conveyance is motorized or nonmotorized · types of roadways, trails, and public transportation or if the area will be predominately roadless and/or trailless

Allocation of Potential Management Zones to Specific Geographic Areas

A park's alternative management zoning schemes should be consistent with the respective alternative concepts and should reflect decisions about the fundamental and other important resources and values of various locations throughout the park. They should also reflect the desirability of providing a variety of visitor experiences in the park, based on the capabilities of various areas to support and sustain different kinds of use. For example, one area of the park may offer an outstanding opportunity to intensively manage and interpret the manifestations of a geologic process, or the landscape associated with a historic process, while another area may offer an outstanding opportunity to minimally manage a natural or cultural landscape and allow people to experience it on their own. Differences in opinion about the desired conditions for the fundamental and other important resources and values of various locations are considered through the development of alternative management concepts and the application of an alternative management zoning scheme consistent with each respective alternative concept.

Not all the potential management zones need to be used for every alternative. In fact, the major differences among the alternatives may be that they apply different management zones to the same geographic areas. Also, different potential management zones may apply to the same geographic area during different seasons if, for example, an area is closed to vehicle traffic and overnight use during winter.

The only reason why a fundamental resource would be treated differently in different zoning alternatives would be to consider a need to balance or prioritize overlapping and potentially competing fundamental resources and values. This is a valid consideration for the GMP. For example, coral reefs and the opportunity to experience a coral reef both might be fundamental to the park. One zone might place the highest priority on the ecological sensitivity of the reef and prohibit access (leaving the experience to video viewing, for example), while another zone might place the highest priority on the opportunity to directly experience the reef, thus subjecting the reef to some level of risk that would be mitigated to the maximum extent possible. Various degrees of risk and mitigation might require multiple zones. These are some of the most important decisions made for parks, yet they are often not acknowledged as decisions. (It has been traditional to say that the resources are preserved or protected the same in all zones.)

Suggested Tools and Methodology for Allocating Management Zones

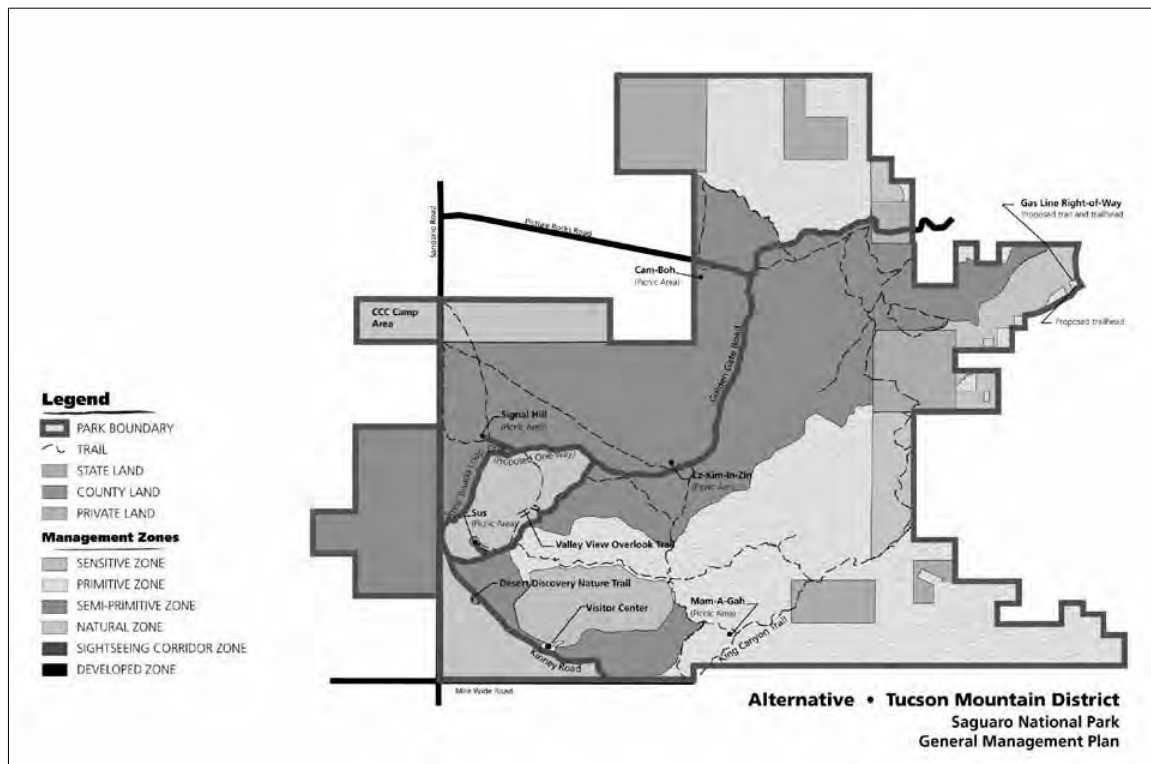
The following methods and tools describe a process for creating management zoning maps (see Figure 7.2). Although the map is not legible at this scale, it illustrates the concept of using different patterns and a legend to show geographically how various areas within the park would be managed under the particular zoning scheme.

7. DEVELOPMENT OF GMP ALTERNATIVES

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Allocate management zones to geographic areas throughout the park based on the management concept for each alternative.	<p>Alternatives are developed primarily by allocating different management zones to different geographical areas to support the intent of the alternative concept.</p> <p>Occasionally, in small parks with homogeneous resources, each alternative may have only one management zone; however, that zone may differ from alternative to alternative, depending on the management concept. If the zones differ among the alternatives, they appropriately explore different sets of desired conditions rather than different ways of achieving the same conditions (which is appropriately deferred to implementation planning).</p> <p>Certain zones may be common elements of all alternatives. For example, a park may have all the development it needs and have no issues related to facilities or their locations. In such a case, the areas zoned for development might be the same in all alternatives. The team should make sure, however, that the rationale for not considering alternatives is sound and does not represent preemptive decision making.</p> <p>Each area should be included in only one zone in each alternative because no area can be managed more than one way at a time. However, if the team decides that an area should be managed differently in different seasons, the area could be placed in different seasonal zones.</p>
<input checked="" type="checkbox"/> Fully consider each area's potential future conditions, not just the existing conditions.	<p>Even park locations that suffer significant resource degradation (perhaps because previous management decisions did not have the benefit of current scientific or scholarly understanding, or because regional land use decisions have affected the park) should be zoned based on their resources and values, and possible approaches to enhancing those resources or values, rather than on existing conditions and past mistakes. The concept of adaptive management allows park managers to continuously incorporate new information and technologies to achieve conditions that may have been unobtainable in the past. The GMP is the appropriate vehicle to compare existing and desired conditions and evaluate options for alternative management.</p>
<input checked="" type="checkbox"/> Ask "what are the possible areas for a particular kind of management and use?" and "what kinds of management and use are possible for this particular area?"	<p>Asking the question both ways will help ensure that reasonable zoning alternatives are not overlooked.</p>
<input checked="" type="checkbox"/> Ensure that management zones have boundaries that are distinguishable in the field.	<p>There is no minimum area a zone can cover; however, in general, separate zones for tiny portions of a park or for a single feature should not be created. Specific management strategies for a small area in a larger zone may be identified as part of the area-specific desired conditions.</p>

7.3. Elements to Be Included in Each Alternative

Suggested Tools	Methodology
	<p>Some zones may be narrow or linear, such as zones that follow vehicle corridors or rivers; other zones may be large polygons.</p> <p>Zones will not necessarily have the same boundaries in each alternative (in fact, different zone boundaries help distinguish alternative concepts).</p>

FIGURE 7.2: EXAMPLE OF A MANAGEMENT ZONING MAP**Allocation of Zones to Nonfederal Lands and Waters**

All lands and waters inside the park boundary, whether federal or nonfederal, should be zoned. If the intent is to eventually acquire the nonfederal property, the zoning identifies the goals (the desired resource conditions and visitor experiences), that justify the proposed acquisition. If the intent is to leave particular lands or waters in nonfederal ownership, the zoning can identify the area as a private use zone.

Planners sometimes consider whether or not to zone nonfederal lands and waters in a GMP. Opinions vary widely on this issue. Thus, this issue needs to be addressed on a case- by- case basis according to the specific situation of the park. For example, if the intent in a large park is to eventually acquire the nonfederal property within a park boundary, the zoning identifies the goals (the desired resource conditions and

visitor experiences) for those lands once they are acquired. (In this case it should be clearly stated that the proposed zoning would apply only if the area was acquired by the National Park Service.) If the intent is to leave particular lands or waters in non-federal ownership, the zoning can identify the area as a private use zone or a special use zone if outstanding legal rights are involved (e.g., a utility right-of-way). However, parks with discrete smaller inholdings may be reluctant to show zoning for those parcels because it would be too suggestive of federal control over privately held lands.

A planning team usually should not zone lands or waters outside the park boundary that would be included inside the park through a potential boundary adjustment. It would be premature for some boundary adjustment proposals to zone the lands outside the park because the area may not have been sufficiently studied to support management zoning decisions. Zoning designations also may be seen as overly restrictive on the part of the public, despite the cautionary language, or could affect future land acquisition negotiations. In addition, a proposed boundary adjustment may not occur during the life of the plan, if ever. Nevertheless, it may be useful to show zoning for a potential boundary adjustment, and thus show how the area would be managed, in the case of a friendly landowner, such as a land conservancy. Showing the zoning in this case could reassure the landowner how the area would be managed and avoid the need for a future GMP amendment showing the zones.

7.3.3 Area-Specific Desired Conditions

Once potential management zones have been allocated to particular geographic areas throughout the park, the development of more detailed desired conditions can be considered to address planning issues and to provide adequate guidance for managing specific geographic areas, locations, or features. Area-specific desired conditions focus on fundamental and other important resources and values, the visitor experience opportunities associated with them, and the types and levels of management, development, and access that would be appropriate in a particular location consistent with how the area has been zoned.

For example, in Yellowstone NP overlaying a zone calling for a pristine natural area on the Lamar Valley could establish the general desired condition for the zone (that “natural systems would be maintained by natural processes”), but this might be expanded to specifically address one of the fundamental values present in the valley — the opportunity to see many of the large mammals associated with the western United States. An area-specific desired condition might state that “the wildlife populations would be maintained through natural predator/prey relationships and natural cycling of nutrient sources.” This more specific desired condition would provide better management direction for resolving a major issue for the park, the reintroduction of wolves, than simply stating that natural systems should be maintained by natural processes in this zone. In the same park, if the pristine natural area was overlaid at the Old Faithful geyser basin, it might be appropriate to expand on the general desired condition for this zone to specifically address a different fundamental resource at this location — the geologic and hydrologic processes that support the geothermal features of the basin.

7.3. Elements to Be Included in Each Alternative

For another example, in a park like Gettysburg NMP, overlaying a zone calling for historic scene restoration over most of the battlefield could result in the general desired condition being expanded to state that the pattern of open fields and wooded areas present at the time of battle would be reinstituted. In the same park, if such a zone also overlaid historic monuments, it would be appropriate to expand the general desired condition to accommodate period restoration. The zone would specifically address the desired condition for the major landscape features and circulation within the Soldiers' National Cemetery (another fundamental resource of the park), while also preserving the commemorative features of the landscape.

The development of area- specific desired conditions provides the opportunity to address location- specific issues and how they would be resolved under various zoning applications. “If the area was zoned one way, the fundamental resources and values present in the area would be addressed like this; if it was zoned another way, they would be addressed like that.” Area- specific desired conditions also provide an opportunity to characterize what certain types and levels of development might look like in different geographic locations. Once a zone calling for high- density, high-visibility visitor service facilities (including orientation, information, food service, and overnight accommodations) was laid over a road corridor, it might be appropriate to expand the zone’s general desired condition to specify that facilities would be clustered at no more than two locations within the corridor so as to avoid strip development. In the same park, if such a zone overlaid a lakeshore area, the desired condition might be expanded to specify that the immediate shoreline would remain undeveloped and open to the public. The alternatives could consider different zoning, with different kinds and levels of development, for these same locations; however, the GMP alternatives should not consider different kinds and levels of development if the area was zoned the same way in each alternative — that would be site planning for how to implement a particular desired condition. (It may be appropriate for site planning to occur concurrently with the GMP and to be assessed in the GMP/EIS or EA. See “Needed and Allowable Changes” below.)

The desired conditions identified in the GMP will guide the identification of measurable indicators and standards needed for monitoring and adaptive management. The indicators and standards needed to manage visitor use are included in the GMP (see Chapter 8). Other indicators and standards related to maintaining the health and integrity of the park’s natural and cultural resources and values (but not directly related to visitor use) are developed as part of the resource stewardship strategies (see the discussion of “Program Management Plans” in the *Park Planning Program Standards*).

Definition and Program Standards

Definition	Program Standards
Area-specific guidance about the desired resource conditions, visitor experience opportunities, and appropriate kinds and levels of	Area-specific desired conditions: <ul style="list-style-type: none"> · Provide long-term direction for desired conditions for park resources and visitor experiences — what managers should achieve and where they should

7. DEVELOPMENT OF GMP ALTERNATIVES

Definition	Program Standards
<p>management, development, and access for each particular area of the park, based on how it is zoned</p> <p>Area-specific prescriptions also identify the kinds of changes needed to move from the existing to the desired conditions.*</p>	<p>achieve it — while providing managers the flexibility to respond to rapid and constant change with discretionary actions.</p> <ul style="list-style-type: none"> · Address the desired relationships between natural and cultural resources, resources and visitor experiences, and the park and its regional context. · Focus on fundamental resources and values. · Clearly describe desired resource conditions and experiences in enough detail to allow for widely shared understanding by all stakeholders, including park staff and the general public. · Include assessments of the appropriate kinds and levels of management, development, and access needed to achieve the desired conditions. · Reflect the best available information from experts and the latest knowledge on best management practices. · At a minimum, consider a 15- to 20-year time frame for the GMP. (Some resources may require a longer perspective.)

* The current guidance is to discuss needed and allowable changes as a separate element. See “Needed and Allowable Changes” below.

Suggested Tools and Methodology for Developing Area-Specific Desired Conditions

Suggested Tools	Methodology
<p><input checked="" type="checkbox"/> Develop a table of desired natural and cultural resource conditions, visitor experience opportunities, and kinds and levels of management, development, and access for geographic area(s), location(s), or feature(s) included in each zone.</p>	<p>Focus on the fundamental and other important resources and values. Depending on the level of detail developed for the potential management zones, some portion of these descriptions may already be done.</p> <p>Refer to the “Idea List for Desired Conditions” above for possible categories of desired conditions for the table.</p> <p>Review the methods and tools for developing potential management zones, as the same considerations will apply to the development of area-specific desired conditions.</p> <p>It is not necessary, or even necessarily desirable, to be quantitative at this stage of planning. Terms like relatively large or small, dispersed, moderate, relatively high- or low-density, extreme, and minuscule may be used to provide park staffs with appropriate and adequate guidance.</p>

7.3. Elements to Be Included in Each Alternative

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Consider problems, issues, and concerns raised during GMP scoping, and whether the desired conditions provide an adequate level of specificity and detail for guidance over the long-term (15-20 years or longer).	<p>Remember that the ultimate use of the area-specific desired conditions is to guide the future management of the park. Based on the guidance provided in the GMP, indicators and measurable standards will be developed for the desired resource conditions and visitor experiences, and park managers will be held accountable for achieving them.</p> <p>Be careful not to call for management activities or development that would be too constraining (i.e., too detailed or specific) to remain relevant for a 15- to 20-year period. For example, rather than stating the kinds and levels of development as "10–15 miles of trails," it would be more appropriate and useful to describe the criteria for how many miles of trail might be built over 20 years. For example, the number and extent of new trails might be determined by criteria such as "not more than 5% of the habitat will be directly impacted by trail corridors," "one trail cannot be visible or audible from another," and "trails may be developed only in areas with suitable soil, slope, etc."</p>

For some GMPs a narrative description of the alternatives may be desired. Preparing a narrative version from the tables developed for potential management zones and area- specific desired conditions will generally involve summarizing, rather than elaborating on, the information that has already been developed. Avoid the tendency to extrapolate beyond what has been developed in these tables and maps and to begin implementation- level planning, which is inappropriate within the GMP. (See "7.2.6. Common Traps to Avoid in Developing Alternatives.")

An example of area- specific desired conditions and needed changes are included in Appendix F.4.

7.3.4 Needed and Allowable Changes — A Way to Evaluate Appropriate Kinds of Changes

Once the area- specific desired conditions have been described, they can be compared to the existing conditions to determine the kinds of changes needed to achieve the desired conditions. The needed changes may be minor or major, depending on how different the desired conditions are from the conditions currently existing in each area. A description of these needed changes provides a better understanding of the implications of achieving the desired conditions and will be needed for impact analyses and cost estimating.

Although GMPs should not include details about specific management actions to achieve the desired conditions (the program standards direct that these are to be deferred to implementation planning), it may be useful to discuss the range of management directions or strategies that the park manager might consider as possible ways of effecting the needed change. For example, the recovery or simulation of a

7. DEVELOPMENT OF GMP ALTERNATIVES

natural fire regime might be accomplished through mechanical thinning and reseedling, prescribed burns, or some combination of these two methods. For another example, changes needed to achieve the appropriate kinds and levels of development might include self-service or staffed information facilities, high-density cabins or motel units, a central food service court or several smaller cafeterias / restaurants, etc. Whether or not it is useful or appropriate to discuss a range of management directions depends on whether action is imminent and whether there is strong public interest, identified during scoping, in how a particular change might be effected.

In some cases it may be appropriate to not only discuss the range of management directions, but to assess the alternatives within that range and select a preferred alternative. In these cases, an implementation plan should be prepared concurrently with the general management plan. (See “Concurrent Implementation Planning” in the *Park Planning Program Standards*.) It may be desirable to assess the implementation plan alternatives along with the GMP alternatives in a single EIS or EA that covers both documents. However, the implementation plan should be kept separate from the GMP (perhaps appended to the GMP) so that the GMP is not outdated if the implementation planning is revisited during the life of the GMP.

Suggested Tools and Methodology for Considering Needed and Allowable Changes

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Compare the desired conditions to the existing conditions in each area to identify the changes needed to move from the existing to the desired conditions.	<p>The identification of needed changes is helpful in (1) ensuring that all stakeholders understand the implications of the management zoning desired conditions, (2) identifying the impacts of the alternatives, and (3) estimating the general costs of implementing the alternatives.</p> <p>Developing this information in chart form helps ensure that all the conditions are analyzed consistently and that no major needed change is overlooked. It may be more manageable to develop several smaller tables rather than one large, comprehensive table.</p> <p>The needed changes are identified by comparing the desired conditions to what currently exists. For example, a desired resource condition might be, “the river would be free-flowing and allowed to periodically flood the riparian woodland,” while the existing condition might be, “the river is currently channeled for flood protection.” The needed change in this example would be the elimination of the impediments to natural flooding.</p> <p>For another example, a desired condition for the appropriate kinds and levels of development might be “limited modern facilities such as walkways, barriers, interpretive and informational signs, and benches,” while the existing condition might be “no existing development.” The needed change in this example would be the provision of appropriate facilities to support the visitor</p>

7.3. Elements to Be Included in Each Alternative

Suggested Tools	Methodology
	<p>experience. In another situation the existing kinds and levels of development might be the same as the prescribed kinds and levels of development, but the existing development might be in a condition that does not meet NPS standards. The needed change in this example would be to provide facilities (either through repair/rehab or replacement) that meet the NPS standards.</p> <p>Other examples of needed changes might include the following:</p> <ul style="list-style-type: none"> · <i>Changes needed to achieve undisturbed natural system functioning</i> — revegetation; reintroduction of one or more extirpated species; removal of one or more exotic species; recovery or simulation of natural disturbance regimes such as fire, shoreline erosion/ deposition, or natural biological succession; or elimination or mitigation of impacts of visitor use · <i>Changes needed to preserve a cultural landscape</i> — stabilization, rehabilitation, or restoration of historic structures; restoration of natural succession to retain healthy communities in forests and woodlots; establishment of a scheduled program for regular maintenance of plant material (pruning, for example) by means consistent with historic practices; erosion control through the use of vegetation compatible with the historic character of the landscape; or elimination or mitigation of impacts of visitor use · <i>Changes needed to achieve a particular visitor experience</i> — elimination or mitigation of competing uses, or the provision or elimination of amenities to achieve a level of support appropriate to the use
<input checked="" type="checkbox"/> Use the needed or allowable changes to verify that the zones have been appropriately located.	<p>If the changes would be unacceptable under the alternative being developed, the location of the zone can be changed and a different zone applied.</p>

7.3.5 Special Considerations for the No-Action Alternative

The primary purpose of the no- action alternative, required by NEPA, is to serve as a baseline for comparing the effects of the action alternatives to the effects of the status quo. The no- action alternative is the continuation of current management actions and direction into the future, i.e., continuing with the present course of action until that action is changed. “No action” does not mean that the park does nothing. Rather, the no- action alternative should present how the park would continue to manage natural resources, cultural resources, and visitor use and experience if a new GMP was not approved and implemented.

The no- action alternative is a viable course of action and must be presented as an objective and realistic representation of continuing the current park management

7. DEVELOPMENT OF GMP ALTERNATIVES

direction. Otherwise it will not be an accurate baseline against which to compare the action alternatives and their potential impacts.

At the general management planning level, the action alternatives are focused more on desired conditions than on the specific actions needed to achieve those conditions. In order to present the no- action alternative in a manner parallel to the action alternatives, it should focus on conditions rather than on actions. Table 7.5 shows how each of the elements in the action alternatives can be compared to a similar element in the no- action alternative.

In an EIS or EA, the no- action alternative should be described first because all other alternatives are then compared against changes in the environment from conditions described under the no- action alternative projected into the future. In addition, the description of the no- action alternative should provide a comprehensive overview of the current approach to park management, including resource management, the management of visitor use and experience, and park operations. There is a tendency among general management planning teams to put less effort into describing the no- action alternative, when in actuality there are a variety of management options available to and being used or implemented by the park. The no- action alternative in the GMP should be described in a similar amount of detail and depth as the action alternatives.

TABLE 7.5: A COMPARISON OF THE NO-ACTION AND ACTION ALTERNATIVES

Element	No-Action Alternative	Action Alternatives
Concept	Briefly state what the kind of place the park is. If the park does not currently have a discernible "character," then the concept for no action is simply to "continue current management."	Briefly state what kind of place the park should be (a vision statement).
Management zoning	Describe the existing zoning plan (If one exists and it is a useful representation of the current allocation of park resources and values to achieve some variety of resource conditions and associated visitor experiences).	Alternative zoning plan: A broad allocation of park resources and values to achieve some variety of resource conditions and associated visitor experiences.
Area-specific desired conditions, including <ul style="list-style-type: none"> Desired resource conditions Desired visitor experience Desired kinds and levels of management Desired kinds and levels of access Desired kinds and levels of development 	Current resource trends, projected into the future (the life of the plan)* Current trends in visitor experience projected into the future* Current kinds and levels of management* Current kinds and levels of access* Current kinds and levels of development*	Desired resource conditions Desired visitor experience Appropriate kinds and levels of management Appropriate kinds and levels of access Appropriate kinds and levels of development

*If a park is pursuing a new visitor contact station or maintenance building, or planning to rehabilitate a building or restore native vegetation, should such projects and actions be included in the description of the GMP's no action alternative? In general, such projects or actions should only be included in the description of the no action alternative if at least one of the following criteria apply:

7.3. Elements to Be Included in Each Alternative

- the action or project is underway and ongoing
- the action or project is funded or funding is imminent (would occur prior to the scheduled signing of the record of decision for the GMP's EIS)
- the project was approved by the Development Advisory Board (DAB) and the appropriate environmental compliance is complete or underway
- a memorandum of agreement is in place with a partner regarding the action or project
- the action or project is congressionally authorized

A project having been assigned a PMIS number, however, is not sufficient rationale for including it in the description of the no action alternative. In addition, it is not appropriate to include actions under a no action alternative simply because those proposed actions were part of a previous GMP or master plan. If the proposed actions from a previous GMP or master plan have not yet been implemented, then practically speaking they are not part of the current park management direction. If the level of commitment to implement these actions does not meet one of the five criteria listed above, the proposals in previous planning documents are subject to reconsideration in the current planning effort and would not represent a realistic no action alternative.

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8. USER CAPACITY

8.1 THE NPS APPROACH TO USER CAPACITY

Although many people think of user capacity as a number of people and/or a limit on the number of people in a given area, the concept is much more complex than that. Research has shown that user capacity cannot be measured simply as a number of people, because impacts to desired resource conditions and visitor experience are often related to a variety of factors that include not only the number of people, but also the types of activities that people engage in, where they go, what kind of footprints they leave behind, what type of resources are in the area, and the level of management presence.

The National Park Service defines user capacity as the types and levels of visitor and other public use that can be accommodated while sustaining the desired resource conditions and social conditions and visitor experiences that complement the purpose of the park.

After years of research and management experience, a number of user capacity management approaches have been developed and are now widely used by various land management agencies. The premise behind almost all of the varying user capacity management approaches is that with any use on public lands comes some level of impact that must be accepted; therefore it is the responsibility of the public land management agency to decide what level of impact is acceptable and what actions are

needed to keep impacts within acceptable limits. This means that *all parks*, even those with relatively low levels of use, still need to consider capacity management, because any use causes impacts, and it is much more practical to manage impacts before they result in unnecessary damage to resources, displacement of visitors, and expensive repairs. For these reasons, capacity management is required by NPS policies. The *NPS Management Policies 2006* provide direction for developing and managing user capacities in “Chapter 2, Park System Planning” (sec. 2.3.1.1); “Chapter 8, Use of the Parks” (sec. 8.2.1); “Chapter 5, Cultural Resources” (sec. 5.3.1.6); and “Chapter 6, Wilderness Preservation and Management” (sec. 6.3.4.2).

The NPS approach to user capacity is focused on measuring the success at achieving and maintaining desired resource conditions and visitor experiences insofar as they are affected by people’s use of the parks. Instead of solely tracking and controlling user numbers, superintendents and park staffs manage the levels, types, behaviors, and patterns of visitor use and other public uses as needed to control the condition of the resources and the quality of the visitor experiences. The monitoring

Park usefulness and popularity should not be measured in terms of mere numbers of visitors. Some precious park areas can easily be destroyed by the concentration of too many visitors. We should be interested in the quality of park patronage, not by the quantity. The parks, while theoretically for everyone to use and enjoy, should be so managed that only those numbers of visitors that can enjoy them while at the same time not overuse and harm them would be admitted at a given time.

— Horace M. Albright, NPS Director, 1929–1933

8. USER CAPACITY

component of this user capacity process helps test the effectiveness of management actions and provides a basis for informed adaptive management of public use.

Throughout the process the National Park Service needs to provide opportunities for the public to jointly learn about and contribute to the development and achievement of desired resource conditions and visitor experiences.

The first major step of incorporating the user capacity process into a GMP is defining the desired resource conditions, visitor experiences, and general levels of management, development, and access for different areas of the park. This step is discussed in “Chapter 7, Development of GMP Alternatives.”

The second step is twofold:

1. defining the indicators (measurable variables) and standards that will be monitored to measure success in achieving and maintaining the desired resource conditions and visitor experiences
2. identifying the management strategies that could be taken if the park staff is seeing impacts that exceed a standard

The identification of desired conditions has been part of general management planning to some extent since the 1970s, and this step was more clearly defined with the adoption of *DO #2* in 1998. Until 2005 the selection of indicators and standards for user capacities was deferred to subsequent implementation planning. In response to legal challenges and increased recognition of the benefits of addressing capacity questions, GMPs now include indicators and standards for user capacities. The NPS *Management Policies 2006* state that a GMP “identifies indicators and standards for maintaining the desired conditions” (sec. 2.2; see also sec. 8.2.1). That said, GMPs can clearly state that indicators may be modified if new knowledge is gained about the efficacy of those selected during a GMP planning process. GMPs now also include a general description of how indicators and standards will be monitored (to ensure that the indicators selected are feasible), although the development of a detailed monitoring plan (with specific monitoring protocols) is a park management function beyond the scope of a GMP.

The last step of user- capacity decision making, which continues indefinitely, is the circular practice of monitoring and management action — a needed and appropriate management action is taken to achieve a desired condition, the resulting condition is monitored and assessed, and the management action is either continued or revised, depending on the observed results. In either case, monitoring continues to provide feedback to decision makers about the long- term success of achieving and maintaining the desired condition: Are conditions improving, staying the same, or getting worse? Are the management actions accomplishing what they are intended to accomplish? The importance of incorporating well- designed, long- term monitoring plans and strategies into park management cannot be overemphasized.

The results of the park’s monitoring efforts, related visitor use management actions, and any changes to the park’s indicators and standards will need to be available for public review. In essence, the user capacity process serves as a regular report card, informing and learning from the public about the status of desired conditions and

8.2. The Applicability of User Capacity to All Parks

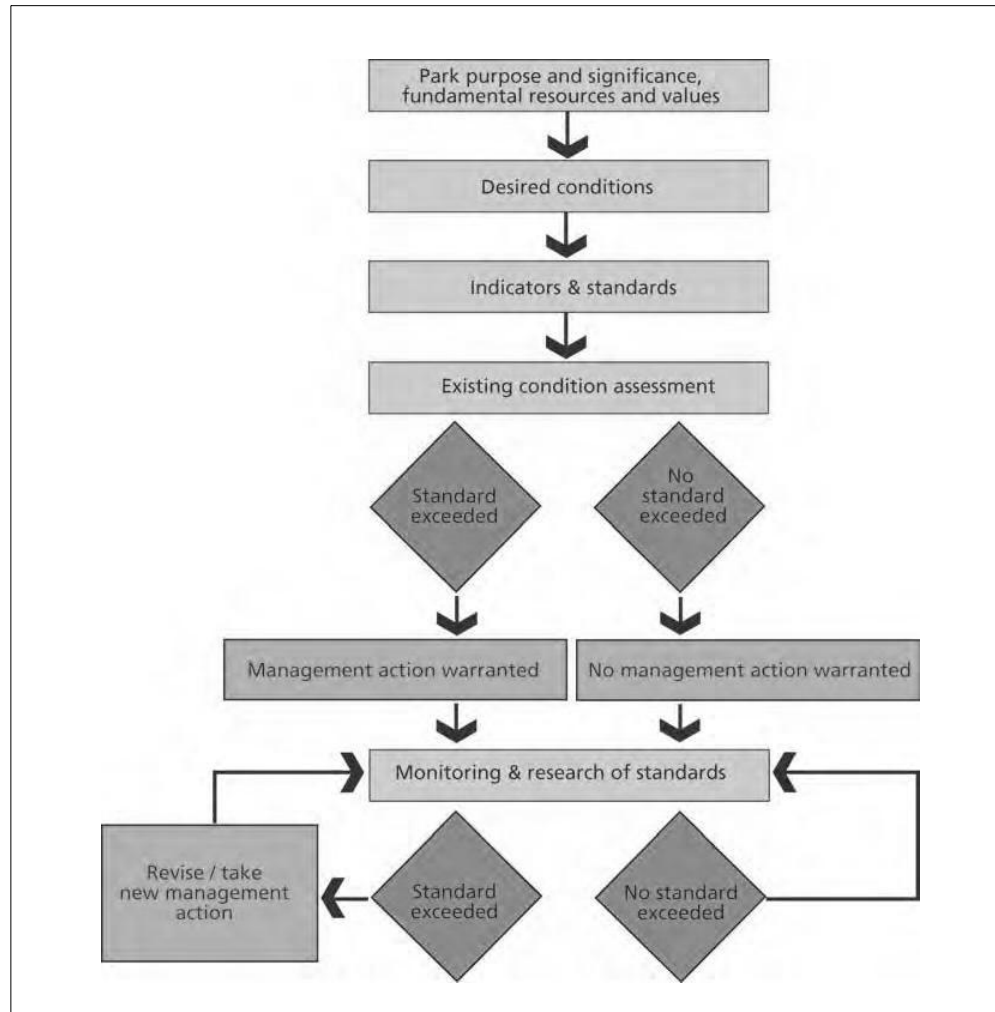
experiences, and about the management actions being taken to protect and enhance them. Table 8.1 summarizes the NPS approach to user capacity; Figure 8.1 summarizes the basic process for user capacity management.

TABLE 8.1: UNDERSTANDING USER CAPACITY: USE PLANNING AND MANAGEMENT

What It Is	What It Is Not
A process of defining desired conditions for natural and cultural resources and visitor experiences and establishing a process to achieve those conditions.	Simply defining the allowable numbers of visitors in an area at one time.
Systematic, cyclic steps of data collection, planning, monitoring, and adjusting management actions.	A one-time, easy fix for crowding or other problems related to visitor use.
Public involvement and shared learning related to visitor use and management.	An isolated, arbitrary decision by park managers.
Management decisions made as a result of relevant data collection, monitoring, and public involvement and shared learning.	Research that provides hard and fast conclusions.
Multiple management strategies to achieve desired conditions may include: <ul style="list-style-type: none"> · site management (e.g., fencing, facility relocations) · rationing or reallocating use (e.g., fee structure, reservations) · regulating use (e.g., limiting group size) · enforcement (e.g., sanction visitors to comply with staying on the trail) · visitor education (e.g., whisper in Cathedral Grove to respect other's needs for contemplative experience) 	A single solution of limiting visitation in order to resolve impacts on resources and visitor experiences.

8.2 THE APPLICABILITY OF USER CAPACITY TO ALL PARKS

Park staffs who believe that they do not currently have a “capacity problem” have probably gone through, in an informal way, some or all of the steps outlined above, even if they were not aware of doing so. Saying that they have no capacity problem implies that the park has an indicator — perhaps the number of visitors who report conflicts with other visitors — and a standard (e.g., no more than about five complaints per year). Managers will find that formalizing the user capacity process by requiring identification of indicators and standards, and by regularly assessing whether standards are being violated, provides a more objective and comprehensive assessment of whether they really do not have a capacity problem. In addition, managers will find it much more practical to manage user capacity before it becomes a problem than to wait until the problems require more controversial or expensive solutions once patterns of use have become established. The advantage of following the steps outlined above is that this process creates a defensible rationale for taking action to more effectively manage user impacts before use becomes entrenched and difficult or impossible to change.

FIGURE 8.1: USER CAPACITY MANAGEMENT

8.3 INDICATORS AND STANDARDS FOR USER CAPACITY

Effective monitoring requires (1) determining the most effective indicator (measurable impact parameter) that can gauge when the desired condition has been achieved, and (2) selecting the standard against which the indicator will be measured. The standard is a management decision the park staff commits itself to defend, about the minimum acceptable condition for that indicator — recognizing that conditions that are better than the standard are even better to achieve and maintain.

More technical definitions and examples of indicators and standards are as follows:

- *Indicator* — a specific, measurable resource or social variable that can be measured to track changes in conditions caused by public use, so that progress toward attaining the desired conditions can be assessed

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Example: The waiting period (measured by number of minutes) required to enter a national park during peak use days (defined as Friday to Sunday, from 10 am to 4 pm, May through September)

- *Standard* — a specific, measurable point identified for an indicator that serves as a trigger point for the identification of unacceptable conditions in a zone or specific area. In other words, a standard is a measurable point at which an indicator changes from an acceptable to an unacceptable condition.

Example: No more than 10% of visitors wait 10 or more minutes to enter the park.

For the purpose of establishing and maintaining user capacities, it is recommended that at least one indicator of resource conditions that are affected by public use and one indicator of social conditions be identified for each management zone. Several management zones may share the same indicator(s) for resource and/or social conditions but have different standards based on the desired conditions for the zone. Some zones may share the same indicator and the same standard for a particular attribute affected by visitor use. Administrative areas where public use is discouraged or prohibited do not need indicators and standards for user capacity (although indicators and standards for resource conditions unrelated to public use may still be needed as part of the resource stewardship strategy). For some zones there may be areas that need site-specific indicators and standards, such as an attraction site. There may also be some times, such as during special events, that specific indicators and standards are needed. The approach is flexible, but the objective should be that the bundle of indicators selected will give managers a picture of how use is impacting resources and visitor experiences and whether those impacts are causing current conditions to diverge from desired conditions.

There is no one, absolute “right” set of indicators and standards, so the hard work is in making the management decisions about what indicators and standards will be used to monitor conditions. The rigor of effort in making that decision can vary depending on the circumstances of each park. The more that is known about how public use may impact desired resource conditions and visitor experiences, the more effective management actions will be in maintaining high quality resources and visitor experiences.

After an initial testing period, indicators and standards generally should not change over the expected life of the GMP unless there is a compelling reason. It may be desirable or necessary to change indicators and standards if they do not work as anticipated. Indicators and standards, like management actions, are part of the adaptive management process and may be improved based on the knowledge gained through implementation. Park managers may decide to modify indicators or standards and to revise the monitoring plan/program if better ways are found to measure changes in resource or social conditions, if the indicators prove not to be sufficiently sensitive to measure changes caused by public use, if the indicators do not prove to be cost-effective to check regularly, or if the standards seem unrealistic to maintain. Most of these types of changes should be made within the first several years of monitoring. After this testing period, adjustments should be needed less often.

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Frequent adjustments may lead to situations in which the indicators and standards are no longer consistent with the desired conditions for the zone. In no case should an indicator or standard be changed simply because a park is out of standard or because the park staff wants to postpone difficult decisions.

The GMP should acknowledge the potential need to change, delete, or add indicators and standards as a result of monitoring, especially during the initial phases of GMP implementation.

8.3.1 Indicators

Indicators can be viewed as a means to translate desired conditions into something that can be measured. Indicators should focus on the most significant impacts caused by public use, or on proxies for those impacts that are both measurable and within management control. The ideal is to find a simple, easy-to-measure variable that covers the major impact of concern.

The impact of concern will be a direct effect on a resource or an experience. The indicator should not focus on management actions (e.g., number of groups that float the river per day), but rather on the impact of concern (e.g., number of encounters with other groups on the river per day). Basing indicators on management techniques rather than on impacts of concern can limit the range of useful management solutions. For example, limiting the number of boaters to some quota per day might be used to ensure low encounter levels per day, but other actions, such as tightly scheduling launch times, could also ensure an appropriate encounter rate and could be less restrictive on the level of visitation to the river.

The relative difficulty of measurement is also important. For example, *Salmonella* may be of concern in water quality, but rather than measure *Salmonella* counts directly, park staffs can measure *E. coli*, which is highly correlated with *Salmonella* counts but is easier and safer to measure. For another example, the overall quality of the visitor experience may be a concern, but rather than querying existing and potential visitors about overall experience, park staffs can measure a single variable, like the number of groups encountered in wilderness, which is known to be correlated with the quality of visitor experiences in wilderness areas.

Suggested Tools and Methodology for Identifying Indicators

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Review desired conditions and ask, "How might visitor use affect the desired conditions?" Also consider current effects or impacts resulting from public use.	In selecting indicators of desired conditions during GMP planning focus on those indicators that "rise to the top" in terms of addressing the most relevant and serious potential impacts of public use. Other indicators may be considered in subsequent, more detailed planning efforts for particular areas or topics (e.g., wilderness plans, trail plans, resource stewardship strategies, etc.). At the GMP level the indicators should generally address the park's fundamental and other important resources and values and how they are affected by public use activities in the park, which will be among the major issues

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Suggested Tools	Methodology
	<p>addressed by the plan.</p> <p>Some planning exercise questions that might be useful for discussing potential indicators include the following:</p> <ul style="list-style-type: none"> · How is public use currently affecting desired resource conditions and visitor experiences? · How might anticipated future use affect the desired resource conditions and visitor experiences considered in the draft GMP? · Of those effects noted above, which are considered to be of highest priority for the park either because of the importance of the resource or value that is (or may be) impacted, the severity of the impact, and/or the vulnerability of the resource or value that is (or may be) impacted?
<input checked="" type="checkbox"/> Consider the indicators already developed for other applications.	<p>An NPS database has been developed to compile indicators and standards that have been used or suggested for use in monitoring user capacity in various land management plans and literature sources (http://usercapacity.nps.gov/). It may be appropriate and efficient to adopt indicators already considered and selected for other areas with similar resources and use patterns (although it may not be as appropriate to adopt the exact standard selected for another park). The planning team may also consider what indicators the park has chosen for their resource inventory and monitoring program — if there are indicators in this effort that are affected by human use, these could be acknowledged as part of the park's user-capacity monitoring as well, increasing the efficiency of data collection for both programs. Whenever possible, draw on information that has already been collected in the park. Rely on the judgment of park planners and managers to identify what categories of existing knowledge about the park might appropriately be used as indicators of user capacity.</p>
<input checked="" type="checkbox"/> Obtain additional information if needed.	<p>Ask current and potential park users what factors most influenced or would influence their assessment of whether they had or might have a quality experience (this may be done through a formal visitor survey or through various aspects of scoping for the GMP).</p> <p>Ask scientists what factors that might be affected by use are most important to determining the health of natural areas, such as riparian areas. Ask scholars what variables that might be affected by use are most important to determining the integrity of a cultural resource.</p> <p>Consult the large and growing body of scientific literature on impacts of public use. If needed, some baseline data from the area may be collected on potential indicators to help refine the articulation of the indicator And the evaluation of a possible standard.</p>

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Screen potential indicators to determine how useful they might be.	<p>Questions to ask include the following:</p> <ul style="list-style-type: none"> · Does the indicator relate to real impacts of concern about resource conditions or visitor experience? Is it a significant measure of something highly valuable and/or highly vulnerable to degradation or loss? · Is the indicator likely to be affected by at least one of the following use attributes: levels of use, types of use, timing of use, location of use, or visitor behavior? · Does the indicator focus directly on the impacts that affect the quality of visitor experience or resource condition? · Does the indicator relate to a variable that the National Park Service can manage or affect? · Is the indicator specific and objective? Is the unit of measurement clear and defined in unequivocal terms? · Is the indicator easily and efficiently measured? If not, is it worth the extensive effort to measure? · Can the indicator be measured reliably with some training? · Can the indicator be measured without significantly affecting the resource or detracting from the visitor experience? · Does the indicator act as an early warning, alerting managers to deteriorating conditions before unacceptable changes have occurred? <p>There may be other questions that should be asked to evaluate indicators for a particular park. Consider developing specific criteria (borrowing from the list above) to evaluate potential indicators.</p>
<input checked="" type="checkbox"/> Consider multiple ways of expressing the indicator.	<p>Indicators can be expressed in multiple ways depending on the unit of measurement that best addresses the park setting and related use impacts. For instance, the indicator topic of informal trails can be measured in the following ways:</p> <ul style="list-style-type: none"> · sum of length of informal trail segments · number of informal trails per unit area · number of informal trails that leave the designated trail (total or per mile) · length of informal segments within a certain distance (e.g., 50 ft. or 100 ft.) from the boundary or sensitive habitats <p>Consider the bottom line of the problem in defining how best to express the indicator. For example, if the real problem is the potential loss of sensitive vegetation and soil compaction in specific areas, then the best</p>

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Suggested Tools	Methodology
	<p>indicator might be the sum of the length of all the informal trail segments (total area disturbed). If the problem is the potential fragmentation of certain sensitive habitats, then the best indicator might be the number of informal trails per unit area.</p> <p>Also consider how the park might monitor the indicator. For example, counting the number of informal trails that leave the designated trail is fairly easy and cost efficient to monitor if the data are sufficient for addressing the problem. If the data are not sufficient, then more comprehensive monitoring will be needed.</p> <p>Furthermore, consider whether the indicators need to be time- or space-bounded. Incorporating a time- or space-bounded element into an indicator expresses both how much of an impact is acceptable and how often such impacts can occur. It is often desirable for indicators to have a time period associated with them. This is especially relevant for social conditions such as crowding-related issues. Examples of time periods may include "per day," "per night," "per trip," "per hour," "per year," etc. Indicators for resource conditions may need to be space-bounded. For instance, indicators for informal trails may be expressed in terms of distance or area such as "four social trails per mile," or "four informal trails per acre."</p>
<input checked="" type="checkbox"/> Clearly express the indicator. Define all terms.	<p>A clear description of the indicator is essential for effective communication, monitoring, and analysis. For example, the density of use at an attraction might be measured by the number of people actually present or by the number <i>perceived</i> to be present. These two variables differ significantly. Informal trails can be interpreted in a variety of ways. Should they include deer trails, old jeep roads, and abandoned trails? Similarly, an indicator might be the number of different parties seen per day. The definition of a day, however, is not obvious. Is it 12 hours, 24 hours, or daylight hours? Does a hike that lasts from Friday evening to Saturday morning consist of ½ day or 2 days? What is meant by peak hours? If an indicator is not clearly defined, there is the possibility of confusion and misinterpretation in setting a reasonable standard, monitoring the indicator, or predicting the impact of that standard.</p>

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TABLE 8.2: EXAMPLES OF INDICATORS

Desired Condition	Good Indicators	Poor Indicators
Safe, relaxing, enjoyable nonmotorized river rafting opportunities	Number of encounters with other rafts (nonmotorized) on the river per hour. Number of encounters with other types of users (motor boats, swimmers, etc.) on the river per hour. Number of visitors per month who complain about noise caused by other visitors	Number of rafts on the river per day Number of rafts for rent Number of parking spaces at the raft launch
Natural conditions and processes	Length or number of informal trails per unit area Number of occurrences of noxious weeds in trails and/or along trail edges Number and size of areas of human caused disturbance within X distance of the river Percentage of time that sound levels are above the natural ambient level (for 90% of the area in the zone)	Number of trailheads Number of regulations Number of management-developed trails Number of law enforcement officers

8.3.2 Standards

As noted above, standards of user capacity are management decisions about the minimum acceptable condition for an indicator that the park staff is committed to defend. The standards need to be set at a level that will be consistent with the desired conditions for the zone.

Suggested Tools and Methodology for Identifying Standards

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Consider the gap between the existing condition and desired condition for the selected indicator.	<p>For indicators selected due to an <i>existing problem</i> in the park, consider the following:</p> <ul style="list-style-type: none"> · How do areas in the park with the problem compare to those without the problem? · Rate how bad the problem really is—how far away is the condition from desired conditions? <p>For indicators selected due to the potential for a <i>future problem</i>, consider the following:</p> <ul style="list-style-type: none"> · Would most people (park staff, stakeholders, public) consider current conditions acceptable? If so, could more impact occur and still be acceptable? If not, is the current condition the limit for being considered acceptable? <p>The existing condition may be considered as the point to set a standard <i>if</i> the condition seems consistent with the desired conditions. This judgment should only be made after careful thought and assurance that existing conditions represent agency and public visions for the future</p>

8.3. Indicators and Standards for User Capacity

Suggested Tools	Methodology
	of the park. If the existing condition is considerably worse than the desired condition, then the standard should be set at a level that would be more consistent with the desired condition.
<input checked="" type="checkbox"/> Identify comparable locations that have set standards for the selected indicator and consider whether that standard seems reasonable.	<p>Many parks and protected areas have established indicators and standards for various areas and issues, and these have been compiled in a data base for reference (http://usercapacity.nps.gov/is/). Identifying indicators and standards for comparable areas with similar issues may be one means of evaluating potential standards under consideration.</p>
<input checked="" type="checkbox"/> Identify research studies that are relevant to the selected indicator and consider whether the data help identify a meaningful standard for the park's setting.	<p>Many years of research have been conducted on visitor preferences for various setting conditions. Information has been published about preferences for crowding-related variables (encounter rates on trails, being able to camp out of sight and sound of other visitors, people at one time at attraction sites), user conflicts (incidences of discourteous behavior, noise from other users or park activities such as use of snowmobiles or personal watercraft), resource impact variables (amount and severity of informal trails, trail erosion, damage to campsites, litter, vandalism and graffiti), etc. Reviewing visitor survey research on visitor preferences for any of these setting conditions may provide one source of information for discussions about potential standards for a park. It is important that this type of information be used for generating discussion rather than being considered as <i>the</i> recommendation for the "right standard."</p>
<input checked="" type="checkbox"/> Screen potential standards to ensure they meet some basic criteria.	<p>Potential questions to ask:</p> <ul style="list-style-type: none"> · Is the standard quantitative and specific? For example, the statement of "low encounters on the river per day" is not quantitative or specific, so it remains subject to various interpretations. This standard may be rewritten as "No more than three encounters with other groups per day." · Is the standard realistic? Standards must reflect conditions that are reasonable to maintain based on the desired conditions of the area and the ability of the park staff to manage within the standard. · What is the best way to measure the standard? There are many different ways of measuring a standard to achieve the same condition (e.g., "an average of 20" or "below 30 for 90% of the time"). The choice may have public relations, statistical, or operational consequences. <p>Does the standard need to be expressed as a probability? Since indicators and standards are defined as the point at which certain conditions (indicators) become unacceptable (standards), then the question is how often to avoid this situation. In most cases, a park will be doing well if it can avoid unacceptable social condi-</p>

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Suggested Tools	Methodology
	<p>tions 90% of the time. For example, a standard might say, "No more than 10 encounters with other groups per day along trails for 90% of the days in the summer use season." The 90% probability of conditions being at or above standard allows for 10% of the time that random or unusual events (e.g., holiday weekends) might prevent management from providing these conditions. This also allows for the complexity and randomness inherent in visitor use patterns, which is most relevant for social standards. At Arches NP the standards originally included probabilities for conditions related to the peak use season. After a test period of monitoring, the park decided that the probabilities should relate to year-round visitation rather than just the peak season. The current standard is that 90% of <i>all</i> visitors would experience acceptable conditions. The park believes this is a more appropriate trigger point for taking management action. Notably, this change now requires a year-round monitoring program for this indicator rather than monitoring only during peak season.</p>
<input checked="" type="checkbox"/> Remember that setting standards is a subjective decision — there is no single "right" standard.	<p>Decisions about standards should be made understanding the tradeoffs and implications of the standards. Input may be sought from scientists, managers, planners, and the public to help evaluate potential standards, but ultimately the decision is the best professional judgment of the manager. No amount of research will conclusively identify a single definitive answer. The right answer cannot be known before the standard is selected. Follow-up monitoring will not disclose what the right answer should have been. Because of this, decisions about standards should be rendered in a logical, traceable manner that is subject to public review. The safest and most defensible position is to thoroughly assess the best available data, pick the standard that seems best, document the thought process, and monitor for the standard. If necessary, it is possible to select reasonable and defensible standards with little or no site-specific data. If questioned, acknowledge that the standard selected is subjective but reflects the manager's best judgment.</p>
<input checked="" type="checkbox"/> Consider the reliability and rigor that is needed based on the decision at hand.	<p>If the planning team anticipates that controversial decisions or highly restrictive management action will occur after standards are set, more data and analysis may be needed. However, no matter the level of controversy, the basic rationale for selecting any indicator and standard for any park should be noted and included in the administrative record so that it can be explained to park staff and the public as the need arises.</p>

8.3.3 Indicators and Standards for Nonrenewable Resources

Because the premise behind user capacity is that some level of impact invariably accompanies public use, there has been considerable discussion about how to establish user capacities for nonrenewable resources. How are standards established for resources that will never grow back or grow back so slowly that they are, for all intents and purposes, impacted for the foreseeable future — resources such as cave speleothems, archeological sites, historic structures, petrified wood deposits, or giant sequoias?

Although consensus on this topic has never been reached, some preliminary recommendations from a workgroup were released about how to consider indicators and standards for public use impacts to nonrenewable resources (see NPS 2000a, 2000b). The group generally agreed that the high value of nonrenewable resources could be dealt with by establishing stringent standards and by having management actions triggered before these standards were exceeded. That is to say, the amount of acceptable change — while greater than zero — would be low.

For those sites or resources that may have absolutely no tolerance for resource degradation, policies and related management would have to be implemented to avoid any impacts (which would require severe restrictions on use). In such cases there might be no need to identify indicators and standards for user capacity.

The final decision about the need to include specific sites or resources in the user capacity monitoring program is up to park managers. This is not to say that these sites or resources should not be monitored periodically to ensure that they are maintained in good condition; however, they may not need to be represented in the pool of indicators and standards being monitored as a basis for evaluating public use capacity.

For more information on indicators and standards for nonrenewable resources, see the summary of recommendations from the workshop on nonrenewable resources, referenced above.

8.4 POSSIBLE GMP MANAGEMENT STRATEGIES

In addition to the selection of indicators and standards as part of describing the desired conditions for a park, a preliminary set of likely management strategies and/or tactics also needs to be identified in the GMP. Several decades of research, management experience, and discussion have identified a variety of strategies and tactics that can be taken to address resource or experiential impacts resulting from recreational use. Numerous factors may be responsible for deteriorating conditions, such as the type and level of visitor use, the timing of use, the behavior of visitors, or the design of facilities. It is no longer assumed that limiting visitor use levels is the only tool, or even the most effective tool, for managing desired resource and social conditions. The effective monitoring of resource and social indicators, combined with public participation, provides park managers with the information needed to guide meaningful management strategies.

The process of monitoring and how it relates to management actions can be likened to a traffic light. A green- light condition occurs when monitoring shows that conditions are well within established standards and no additional actions are required. A yellow- light occurs when monitoring shows that conditions are approaching the standard. This early warning sign may call for implementing proactive management actions to protect and enhance desired conditions. Measures taken at yellow- light conditions, when standards are still being met, may be less restrictive and focus on approaches such as public education. A red- light condition is triggered when monitoring shows that conditions violate the established standard, and action must be taken to return conditions to the acceptable standard. Management actions taken at this point are likely to be more restrictive in their approach, including limitations on use levels in various areas, restrictions on certain activities, or closure of certain areas.

To assist park managers in determining what strategies and tactics might be most effective under various circumstances, the National Park Service commissioned the development of a decision- making handbook for addressing visitor use related problems (*Maintaining the Quality of Park Resources and Experiences: A Handbook for Managers*, Anderson, Lime, and Wang 1998). The handbook, posted on the web at http://www.cnr.umn.edu/CPSP/publications/revtactics_handbook.pdf, is a good source for considering the major categories of management strategies and tactics that might be considered in a GMP. The handbook identifies five general management strategies that can be considered for addressing unacceptable impacts:

- Modify the character of visitor use by controlling where use occurs, when use occurs, what type of use occurs, and how visitors behave.
- Modify the resource base by increasing durability or maintaining/rehabilitating the resource.
- Increase the supply of recreational opportunities.
- Reduce use in the entire area or in problem areas only.
- Modify visitor attitudes and expectations.

The handbook also outlines general tactics for implementing a strategy:

- site management (e.g., fencing, facility relocations, site hardening)
- rationing or reallocating use (e.g., fee structure, reservations)
- regulating use (e.g., limiting group size, restricting campfires)
- enforcement (e.g., sanction visitors to comply with staying on the trail)
- visitor education (e.g., visitors are asked to whisper while in Cathedral Grove to respect other's needs for a contemplative experience)

Major strategies and/or general categories of tactics (not specific actions) that might be needed for keeping conditions within standards should be included in the GMP. This may be done as part of the management zone descriptions, or as part of the description of the specific alternatives. Not all strategies and tactics would be appropriate in all settings and situations. For example, increasing the number of

visitor facilities might not be an appropriate strategy for wilderness and backcountry areas. The range of strategies/tactics should be consistent with the desired conditions in the zone descriptions, and it would likely influence the potential impacts of concern. The purpose is to provide a general indication to the public of the types of strategies and tactics that could be considered for managing resources and visitor experiences, while not being overly specific about actions, which would reduce managers' long-term flexibility when addressing specific problems. However, if a particular public use impact was close to or already exceeding a standard at the time the GMP is developed, then a more specific description of potential actions to resolve the problem might be included in the plan.

The identification of potential management strategies and tactics in the GMP does not limit a manager's ability to act in response to information gained from monitoring. The actual, specific management actions selected will ultimately depend on the particular setting and situation encountered. The National Park Service must provide information about the specific actions being proposed through ongoing or supplemental public involvement processes. In addition, specific management actions proposed for implementation would be required to comply with the requirements of NEPA, the NHPA, and other applicable laws. Those actions that would result in a major change in public use management or result in intensive or intrusive visitor management would require a higher level of compliance. (See "8.6. Environmental Compliance and User Capacity.")

8.5 DEVELOPING A MONITORING STRATEGY FOR INDICATORS AND STANDARDS

Monitoring plays three important roles in the management of user capacities.

1. It helps park managers understand if resource and/or social conditions are changing and if conditions are approaching, are at, or are exceeding standards.
2. It enables park managers to assess the effectiveness of management actions by providing feedback about the actual consequences.
3. It can provide a defensible, quantitative basis for initiating management actions that are consistent with park goals.

Without data, park managers have little on which to base their actions except an instinct that something is not right. With monitoring, managers can show how conditions have changed or document why corrective actions need to be taken.

It is critical that park staff understand the energy and commitment that will be required for monitoring. This is often the most underestimated aspect of developing a plan that includes indicators and standards. Monitoring is an ongoing, long-term undertaking. It requires an implementation schedule and carefully designed protocol or monitoring plan to reduce bias and provide consistent, meaningful information about the dynamics of park resources and visitation. The fundamental purpose of a monitoring plan is to ensure that "the line in the sand" regarding resource condition and/or the quality of the visitor experience is clearly defined and recognized when it is reached.

The GMP should include a monitoring strategy that describes the general level of effort needed to successfully track the selected indicator(s). To determine the feasibility of selecting a particular indicator, the team should consider how each indicator might be monitored, including the rigor necessary to successfully monitor the indicator, and how frequently and systematically the indicator will need to be monitored. This discussion could be facilitated and documented by developing a table like the one shown below.

TABLE 8.3: EXAMPLE OF GENERAL DESCRIPTION OF MONITORING STRATEGY

Indicator	Standard	Monitoring Strategy
Linear feet of informal trail per square mile	20 linear feet of informal trail per square mile	Non systematic monitoring as part of regular staff and volunteer patrols. Systematic trail assessments for a section of the trail system every 1-2 years.
Percentage of cars above posted speed on park roads	No more than 10% of cars traveling more than 5 mph above the speed limit on park roads	Part of regularly scheduled patrols and/or sample days with speed tracking technology
Number of encounters between groups per hour	90% of the time, no more than 5 encounters between groups per hour	Observe number of people seen at one time on random days during the peak season based on a sampling scheme

Some teams may find it advantageous to include a preliminary monitoring plan as an appendix to the GMP. (This is not required.) All discussions of monitoring strategies and/or plans should include a disclaimer that the plans are subject to change as a result of knowledge gained through implementation of the monitoring program. Since most GMPs will not include a detailed monitoring plan, one will need to be developed once the GMP has been completed in order to guide long-term monitoring efforts. The monitoring plan should be available to the public. For more information on monitoring protocols and plans, see the VERP handbook, *Identifying and Monitoring Indicators of Visitor Experience and Resource Quality: A Handbook for Recreation Resource Managers* (Lime, Anderson, and Thompson 2004), the discussion of visitor impact monitoring in *The George Wright Forum* (2006), and examples of monitoring protocols developed by specific parks (e.g., Yosemite, Acadia, Arches, Mount Rainier, Isle Royale, Grand Canyon, Shenandoah, Denali, and Zion).

Four main criteria should be kept in mind in developing a monitoring program. A monitoring program needs to be

- *Feasible* — People and equipment are available to do the monitoring where and when it is called for and, later, to do the analysis of the data.
- *Objective* — The data are recorded in an objective, reviewable manner.
- *Timely* — Monitoring data provide information when park managers need it.
- *Repeatable* — The protocols are clear enough for different people to implement them in the same manner.

Other important factors to consider in developing monitoring strategies and plans include the identification of locations, frequency, and timing of measurements; data sampling and statistical methodology; how the data will be analyzed and displayed;

what to do with the data collected; estimated costs of monitoring; and identification of the individuals responsible for data collection, analysis, and reporting.

The rigor of monitoring for each indicator might vary considerably, depending on how close the existing conditions (determined from the existing condition assessment) were to violating the standard. If the existing condition was far from exceeding the standard, the rigor of monitoring might be less than if the existing condition was closer to the standard. Some options for varying the rigor of monitoring include the frequency of monitoring cycles, level of systematic monitoring, or the geographic area monitored, as described below:

- *Frequency of monitoring* — Some indicators might only be monitored every 7–10 years if existing conditions were far from being out of standard. If conditions started to trend toward the standard, monitoring might become more frequent to ensure that impacts were stopped before the standard was violated.
- *Level of systematic monitoring* — Some monitoring could be included as part of regular park staff or volunteer patrols or other management activities. This monitoring would occur when the patrols or activities were scheduled rather than according to a specific monitoring schedule. If monitoring indicated that conditions were beginning to change, then more systematic monitoring should be conducted to identify any problems.
- *Geographic area* — Another option for varying the level of rigor might be related to the geographic area or overall scope of the monitoring effort. An example might be measuring “off-shoots” of informal trails that branch off from main trails to determine the extent of informal trails. If the number of intersections of informal trails from main trails began to increase greatly, park managers might consider doing a census on the length and number of all informal trails to determine the full extent of the problem, and to select the most effective management actions.

The rigor of monitoring could also vary depending on the sensitivity or importance of particular resources or values that might be threatened. For example, if visitor use in a sensitive riparian area could become a problem with slightly more use or a change in visitor behavior, this area could be targeted for systematic and frequent monitoring.

The rigor of monitoring could vary depending on the level of controversy that surrounds protection of particular resources or values or the resulting management actions that might be needed to manage use levels, types, or patterns. If a park expects a high level of controversy, then rigorous monitoring might be needed from the outset.

The rigor of monitoring could vary in places where the effects of management actions were unknown. For example, if the effects on site conditions of closing a campsite and reseeding with native plants were unknown, this area might be targeted for some short-term systematic monitoring to gauge the effectiveness of this technique in restoring desired conditions.

Due to limited staff and budgets, as well as the desire to engage the public in park management, volunteers should be considered for monitoring activities where

feasible. Many parks have had great success in using volunteers to monitor indicators and standards related to visitor use. Lessons learned from these examples should be sought by parks considering the use of volunteers for monitoring efforts.

8.6 ENVIRONMENTAL COMPLIANCE AND USER CAPACITY

Environmental compliance needed for revising established user capacity indicators and standards, and for taking specific management actions, are usually not topics that are addressed in a GMP. But after a GMP has been completed, park staff may want to revise an indicator or standard, or propose specific actions to address a user capacity problem. These topics are briefly discussed below.

8.6.1 Revisions to Indicators and Standards

Revisions to established indicators and standards could potentially be subject to compliance with NEPA, NHPA, and other laws, regulations, and policies. Each revision to an existing indicator or standard will need to be evaluated on a case-by-case basis to determine the potential for impacts to the human environment using the processes outlined in *The DO-12 Handbook* (see sec. 2.10). The completion of an environmental screening form (ESF) is a key tool in this process. If it is determined that there is no potential for impact, then further activities to comply with NEPA may not be necessary.

Caution should be exercised in assuming that only a slight change to a standard would automatically mean no impacts to the human environment. Since a standard is the measure against which an indicator is considered, and thereby determines the acceptability of conditions, *where* the standard is set has substantial implications on the resulting resource and visitor use conditions. A seemingly minor revision to a standard for a visitor encounter rate, for example, could have substantial implications for visitor use and, in turn, park resources in a particular area. It is necessary to thoroughly consider all *indirect impacts* (meaning later in time and farther removed in distance than the action) of each change in a standard, no matter how small.

8.6.2 Taking Management Actions

If conditions are approaching or exceeding a user capacity standard, specific management actions proposed for implementation must comply with the requirements of NEPA, the NHPA, and other applicable laws and policies. Determining the appropriate pathway for NEPA compliance depends on the proposed management action and the severity of potential impacts to the human environment. For example, educating users about other areas of the park in order to disperse visitation might be an action that could be categorically excluded, depending on the methods used for education. However, actions such as building new trails to disperse visitor use or requiring day use permits might require an environmental assessment. Each management action will need to be evaluated on a case by case basis using the processes outlined in *The DO-12 Handbook*, “Determining the Appropriate NEPA Pathway” (sec. 2.10).

9. ESTIMATING COSTS OF ALTERNATIVES

9.1 WHY INCLUDE COST ESTIMATES IN THE GMP? WHAT COSTS SHOULD BE INCLUDED?

Cost estimates in GMPs are required by the 1978 Parks and Recreation Act, and costs are important to meaningful decision making. GMPs must be both visionary and realistic, and they must be developed in a fiscally responsible manner. Cost estimates are a key factor to be used (along with impacts and advantages of the various alternatives) during the process to select a preferred alternative. Decision makers and the public need to have an overall picture of the estimated costs of various alternatives, including the no- action alternative, to make wise decisions and determine feasibility within the planning process.

The *Park Planning Program Standards* direct that plans should include estimates of annual recurring costs (hereafter referred to as “annual operating costs”) and of one-time costs for facility rehabilitation, new construction, or management projects. Costs of alternatives may vary significantly in recurring needs such as staffing, operations, and maintenance, as well as one- time projects such as facilities, transportation projects, research, and resource rehabilitation. The GMP should focus on the elements of alternatives that affect desired conditions, and it should present the costs of those actions. For clarity, cost estimates should include the year in which they were made, such as “All cost estimates are in 2008 dollars.”

We should be as prophetic in foreseeing park needs and as generous in satisfying them as we can, for the longer the waiting, the more difficult and costly the task will be.

— Harold A. Caparn

Land acquisition costs also affect NPS decisions, but typically **should not** be included in the public cost presentation. The chief of the Land Resources Division, in a memo to the chief of Park Planning, has stated that land acquisition costs are inappropriate in GMPs due to the fluctuation in land value, inconsistency in estimate development, and the confidentiality of the acquisition process. This request not to include land costs in the GMP builds on a 1990 memo from the associate director that directs regional directors to include land costs in planning documents only if the estimates have been cleared by the chief of the Land Resources Division. Exceptions may be made if the cost estimates are requested by Congress or the Office of Management and Budget, or in other special circumstances, in which case Land Resource Division staff should be involved in preparing the estimates. A discussion of proposed boundary adjustments should still be included in the narrative, and it should explain that land costs will be developed before legislative action and acquisition.

In identifying alternatives and their associated costs, facilities and projects should be presented conceptually, not as finished products. Within a single alternative, there will be a range of appropriate facilities and management actions that meet the desired conditions. As the alternative is developed, it is the role of the planning team to

choose those facilities or actions that are *most appropriate* for the alternative, and to develop cost estimates based on available information. It is understood (and stated explicitly in the plan's disclaimer language) that costs for facilities and management actions are presented in the GMP for comparison purposes only and will change as specific projects are proposed and approved. The basis for cost estimates should be included in the administrative record of the plan development. What is presented to the public will have less detail than the calculations done to develop the estimates.

9.2 COST PRESENTATION CONTENT

The elements listed below should be included in the GMP.

- *Alternatives comparison summary* — The summary should include the cost estimate table and disclaimer language. Disclaimer language should also appear wherever costs and implementation schedules are presented.
- *Description of the alternatives* — An explanation of costs, FTEs, and partnership opportunities would typically appear in the description of the alternatives; they could be repeated in the alternatives summary section as desired.

9.2.1 Alternatives Comparison Summary:

The following should appear in the summary comparison of alternatives:

- A table that shows a comparative analysis among alternatives (see template and example below) and that includes the following (these elements are discussed in more detail in the next section):
 1. Annual operating costs
 2. Staffing levels (FTE)
 3. One- time facility costs
 4. One- time non- facility costs
 5. Costs for other projects or actions that significantly influence the alternatives and cost comparison
- Disclaimer language (see sec. 9.5).

9.2.2 Description of Alternatives

The following elements should appear in the description of alternatives:

- *An explanation of costs* — The explanation should include descriptions of the major costs for each alternative. For example, if alternative B includes a cost estimate for facility construction, the project should be described as follows: "Estimates for alternative B include construction costs for a new visitor facility for orientation and information in the developed zone near the east entrance." Changes in operations and maintenance should also be described. For example, if an alternative has reductions in deferred maintenance due to removal of a building, that reduction should be described in the text. In the discussion of costs, it may be appropriate to include a timeline for implemen-

tation or to note “trigger events” for action items. For example, the plan may state, “The proposed shuttle system in alternative C would be instituted when capacity of the existing parking lots was exceeded and resources were being impacted by improper parking.”

- *A general explanation of the difference in total FTE levels among the alternatives* — For example, the plan may state that “new staff in alternative C would include two environmental compliance specialists and three visitor protection rangers.” FTE levels should indicate ONPS- funded NPS employees only — neither volunteers nor partner- funded positions are to be included in this figure. (For the no- action alternative, the staffing level should indicate current authorized staffing limits, not existing encumbered or actual staffing levels, since the latter vary over time.)
- *A discussion of partnership opportunities, if appropriate* — The text should recognize that some costs may be borne by partners, but the GMP should not name partners unless they are specifically identified in the establishing legislation or other legally binding document. Any costs that may potentially be borne by partners must still appear in the tabular presentation of costs as NPS costs; the explanation of the partnership role would be provided in the text of the alternatives. Additionally, the text may include caveats that some projects will only be undertaken at the scale presented if sufficient outside funding and/or non- NPS personnel are available.

9.2.3 Internal Briefing Statements

The following should appear only in the internal briefing statements:

- *Potential costs for boundary adjustments* — This should include a description of how the costs were calculated, and a note if the estimates were approved by regional and/or WASO Land Resources Division staff.
- *Description of tools used to estimate costs* — For instance, if a visitor center is proposed, the briefing paper would state that the Facility Model was used and when approval was received. Another example would be a statement that the CRV calculator was used for cost estimates.
- *Total deferred maintenance* — The total deferred maintenance in the park, as of a certain date, should be included as a point of reference for proposed new costs. If proposed actions in the alternatives would affect the deferred maintenance, that information may be included.

9.3 COST PRESENTATION FORMAT AND TEMPLATE

Cost figures should be presented as a single number, not as a range, since the disclaimers state they are estimates only. Cost tables should **not** include life- cycle costs or costs for boundary adjustments, and the annual costs should **not** be added to the one- time costs. Costs should be rounded to the nearest \$10,000 or \$100,000, depending on the project size.

9. ESTIMATING COSTS OF ALTERNATIVES

The format in Table 9.1 could be used in the GMP. If used, the **footnotes in italics should be included in the text of the document**. (Bracketed, non- italic text in the footnotes is provided as guidance to planning teams.)

TABLE 9.1: EXAMPLE OF A COST COMPARISON TABLE
(all cost estimates are in 2008 dollars)

	Alternative A	Alternative B (NPS Preferred)	Alternative C
Annual Operating Costs (ONPS) ¹	\$2,370,000	\$4,450,000	\$5,870,000
Staffing (FTE) ²	32	40	57
Total One-Time Costs ³	\$3,450,000	\$33,040,000	\$49,280,000
Facility Costs ⁴	\$3,450,000	\$28,240,000	\$44,480,000
Non-Facility Costs ⁵	0	\$4,800,000	\$4,800,000
Other Costs ⁵			
· Battlefield Bypass Project ⁷	0	\$15,000,000	\$15,000,000
· OMSI Science Center Bunkhouse ⁸	0	\$2,100,000	0

[NOTE: Boundary adjustment costs should **not** be included in this table; a footnote should be added to the table stating these costs are not included in the table.]

1. *Annual operating costs are the total costs per year for maintenance and operations associated with each alternative, including utilities, supplies, staff salaries and benefits, leasing, and other materials. Cost and staffing estimates assume that the alternative is fully implemented as described in the narrative.*

2. *The total number of FTEs is the number of person-years of staff required to maintain the assets of the park at a good level, provide acceptable visitor services, protect resources, and generally support the park's operations. The FTE number indicates ONPS-funded NPS staff only, not volunteer positions or positions funded by partners. FTE salaries and benefits are included in the annual operating costs.*

[For the no-action alternative, the staffing level should indicate current approved staffing levels, not existing actual levels, since actual staff levels vary over time.]

3. [The total one-time costs should equal the sum of all elements listed in the rows that follow. No one-time costs should be double counted in multiple rows.]

4. *One-time facility costs include those for the design, construction, rehabilitation, or adaptive reuse of visitor centers, roads, parking areas, administrative facilities, comfort stations, educational facilities, entrance stations, fire stations, maintenance facilities, museum collection facilities, and other visitor facilities.*

[For the no-action alternative one-time facility costs would include costs associated with projects already approved and fully funded. Projects with an approved PMIS statement but without approved implementation funding should not be included in the no-action alternative.]

5. *One-time non-facility costs include actions for the preservation of cultural or natural resources not related to facilities, the development of visitor use tools not related to facilities, and other park management activities that would require substantial funding above park annual operating costs. Examples include . . .*

[The planning team should include relevant examples here or refer to the alternatives narrative, for clarity. Examples could be the rehabilitation of a historic landscape, development of a fire management plan for prairie or forest restoration, studies and inventories, the development of a new film, website, or exhibit for visitors, outreach programs, and myriad other actions. The defining criterion is that these costs are not related to facility costs. In the no-action alternative, non-facility costs should include only those costs already planned within existing programs, and identified within the PMIS with an approved funding source, as noted above.]

6. [Projects that would be partially or wholly funded from other sources. These actions should be separated from the facility costs and titled explicitly, with an explanation of the funding plan. A footnote with references to pages where the project is described in detail may be appropriate. Examples are given in footnotes 7 and 8.]

7. [The battlefield bypass project would reroute the main highway within the park. Final decision on the bypass rests with the Virginia Department of Transportation. If approved, the state will fund approximately \$12 million of the total \$15 million cost. More information is available in chapter 2, page y.]

8. [The OMSI Science Center Bunkhouse project would be a partnership project to construct living quarters near the existing science center. The project will only be undertaken if OMSI is able to raise the \$2.1 million necessary for the bunkhouse construction. See page 93 for details.]

9.4. Suggested Tools and Methodology for Estimating Costs

Each of the cost categories in the table (annual operating, staffing, total one- time, facility, non- facility, and other) should appear in each GMP. Costs for other projects could be included if they represent significant differences among the alternatives, are of significant magnitude, or involve atypical funding. Optional cost rows may be used at the discretion of the planning team and should describe other projects that are clearly explained in the narrative descriptions of the alternatives. These projects should be listed individually, not bundled together and shown as a single cost.

9.4 SUGGESTED TOOLS AND METHODOLOGY FOR ESTIMATING COSTS

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Determine which costs need to be calculated for the alternatives.	Prepare a matrix, similar to what is done for the impact analysis, which identifies all major facilities and management actions that are being proposed in each alternative and that need to have costs estimated. Only report costs that make a substantial contribution to the differences among alternatives. Group actions under each alternative according to new facilities, changes to existing facilities, non-facility costs, operating costs, or other costs.
<input checked="" type="checkbox"/> Determine annual operating costs.	<p>The ONPS database provides the baseline costs for the park's no-action alternative. The difference between authorized limits and actual FTEs may not be captured in the ONPS number, however, and may be added to the figure. For the other alternatives add additional costs for maintenance and operations associated with each alternative. Annual operating costs should be calculated as if the alternative was fully implemented, in today's dollars.</p> <p>FTE salaries and benefits are included in the annual operating costs.</p> <p>The annual maintenance cost of new facilities is estimated to be 4% of the construction costs.</p> <p>Annual operating costs of non-facility projects should be estimated as feasible.</p>
<input checked="" type="checkbox"/> Determine staffing — the number of FTEs.	<p>FTEs (full-time equivalents) needed to implement the action alternatives should be shown as NPS employees, not volunteers. The number of FTEs should be calculated as if the alternative were fully implemented. A general description of the new FTE positions should be provided.</p> <p>The costs associated with the new proposed FTEs in each alternative should be added to the annual operating cost.</p>
<input checked="" type="checkbox"/> Calculate one-time costs for construction and/or major rehabilitation of facilities, and acquire approval of the facility model runs for the preferred alternative.	<p>Use a cost matrix to keep track of all one-time costs.</p> <p>For the no-action alternative one-time facility costs would include costs for projects already approved and fully funded. Projects with an approved PMIS statement but without approved implementation funding should not be included in the no-action alternative.</p>

9. ESTIMATING COSTS OF ALTERNATIVES

Suggested Tools	Methodology
	<p>If the action will affect the annual operating costs, determine the effect and adjust the operating costs accordingly. For facility removal, the cost of demolition should be added to the facility cost.</p> <p>Any costs that may be borne by partners must be included in the one-time costs; however, an explanation should be given in the narrative of cost-sharing opportunities. Additionally, the text may include caveats that some projects would only be undertaken at the scale presented if sufficient outside funding and/or non-NPS personnel were available. (If partnership project costs are significant or involve atypical funding, it may be appropriate to list them individually in the "Other Project Costs" section.)</p> <p>Facility construction/rehabilitation costs may be estimated through:</p> <ul style="list-style-type: none"> · Facility Planning Model (for new facilities) · Current Replacement Value calculator · similar construction/rehabilitation projects · other NPS or industry guideline, and/or professional judgment <p>Facility Planning Model (FPM): http://construction.den.nps.gov/prplanning.cfm</p> <p>This model can be used to determine the square footage for new visitor centers, administrative facilities, comfort stations, educational facilities, entrance stations, fire stations, maintenance facilities, museum collection facilities, and other visitor facilities. The model is a program that moves through a series of questions about the park, current and expected visitation, and what will be housed within the facility. The model results in an estimated facility size, but it does not generate costs. An industry-accepted method is used to determine the potential cost, based on square footage and other factors.</p> <p>Note that for all facilities proposed in the preferred alternative, a facility model run must be approved by the WASO Construction Program Management Division and by regional leadership. Documentation of this approval should be included in the briefing material for the GMP.</p> <p>The contact for the facility planning model is the WASO Construction Program Management Division (Nancy Cocroft, 303-969-2391).</p> <p>Current Replacement Value (CRV) Calculator: http://inside.nps.gov/waso/custommenu.cfm?lv=4&prg=190&id=293</p> <p>The on-line CRV calculator reflects industry standards for costs associated with NPS facilities. The CRV calculator is used for generating rough cost estimates for</p>

9.4. Suggested Tools and Methodology for Estimating Costs

Suggested Tools	Methodology
	<p>new assets. This includes buildings, roads, trails, and many other categories. It calculates cost per unit, per square foot, or per linear mile, depending on the type of asset. The model automatically makes adjustments for locality cost differences (e.g., Golden Gate NP has a location factor of 1.47 while Abraham Lincoln Birthplace NHS has a location factor of 1.04). The total itemized cost is multiplied by the location factor to get a location-based cost.</p> <p>The CRV calculator is a Microsoft Excel spreadsheet that requires you to enter the park (for locality-specific costs), the asset code (for example 4300 — Housing), and the asset number. Once you enter this information, you are taken to a spreadsheet that is specific to that type of asset, where you enter more data about the particular asset, such as type of construction, number of stories, and square footage. The calculator automatically gives you the total cost, taking into account any locality adjustments. From there, you can “record the CRV” to generate a separate spreadsheet with your results.</p> <p>Additional costs, such as one-time costs for the installation of utilities may not be included in the CRV results and should be factored into the cost estimates through other industry-standard means. The cost estimate produced by the CRV can be increased by a certain percentage to capture the additional costs.</p> <p>The contact for this tool is the WASO Park Facilities Management Division (Tim Harvey, 202-513-7034).</p> <p>Park Asset Management Plan (PAMP) http://165.83.71.10/maintenance/fmss/PAMP%20Guide final 05 2007.pdf</p> <p>The PAMP describes park assets, how important each asset is in supporting the park mission, operations and maintenance funding levels, and key data about current replacement values, quantities, asset condition, and the amount of deferred maintenance. The plan also predicts future system replacement needs, out-year project development, and candidates for planned disposition. For GMPs, the PAMP can give an indication of where and how much money will be spent on assets, as well as list the assets that must be maintained.</p>
<input checked="" type="checkbox"/> Calculate one-time costs for non-facility actions.	<p>The defining criterion is that these costs are not related to facility costs. As noted above, use a cost matrix to keep track of all one-time costs and organize them into relevant sections.</p> <p>In the no-action alternative, non-facility costs should include only those costs already planned within existing programs and identified within PMIS with an approved funding source.</p>

9. ESTIMATING COSTS OF ALTERNATIVES

Suggested Tools	Methodology
	<p>Any costs that may be borne by partners must be included in the one-time costs; however, an explanation should be given in the narrative of cost-sharing opportunities. Additionally, the text may include caveats that some projects would only be undertaken at the scale presented if sufficient outside funding and/or non-NPS personnel were available.</p> <p>Examples include the rehabilitation of a historic landscape; development of a fire management plan for prairie or forest restoration; studies and inventories; the development of a new film, website, or exhibit for visitors; outreach programs; and myriad other actions. Non-facility costs generally are estimated through professional judgment and/or other NPS or industry guidelines, similar projects, or in a few cases the CRV calculator.</p> <p>If the action will affect annual operating costs, determine the effect and adjust the operating costs accordingly.</p>
<input checked="" type="checkbox"/> If appropriate, identify boundary adjustment costs.	<p>Contact the Land Resources Division to estimate the cost for significant boundary adjustments, including land purchases and easements. These costs will be reported in internal documents only, not in the GMP or other communications with the public. A description of how this cost was determined is required for internal documentation.</p> <p>If a boundary adjustment is proposed, the text and the summary cost table should note that acquisition costs are not included in the presentation of costs.</p>
<input checked="" type="checkbox"/> If necessary, calculate other project costs.	<p>Other project costs should be included if they represent large differences among the alternatives, are substantial, or involve atypical funding. These are actions that should be clearly identified in the narrative descriptions of the alternatives. Specific projects should be listed individually. See the preceding section for examples. These signature actions should be separated from facility costs and noted explicitly, with an explanation of the funding plan costs and potentially with references to pages where the project is described in detail.</p> <p>If the action will affect annual operating costs, determine the effect and adjust operating costs accordingly.</p>
<input checked="" type="checkbox"/> As needed, consult with WASO offices in estimating costs.	<p>The two major offices in establishing NPS cost-estimating tools and application of those tools are the WASO Park Facilities Management Division in Washington, DC, and the WASO Construction Program Management Division (WASO CPMD) in Denver. These divisions are involved in the Facility Management Software System (FMSS), which tracks existing assets, as well as value analysis, facility planning modeling, and the NPS Development Advisory Board for new construction projects.</p>

9.5 DISCLAIMER LANGUAGE

The authors of the GMP should consider public expectations about costs and project timelines when providing the public information about each alternative. The following disclaimers, which are shown in italics to emphasize the text that should be included in the GMP, should be included in either bulleted or narrative format when cost estimates are presented in the plan.

Example of List Format for Disclaimer

The following applies to costs presented throughout this GMP:

- *The costs are presented as estimates (in 2008 dollars) and are not appropriate for budgeting purposes.*
- *The estimates presented have been developed using NPS and industry standards to the extent available.*
- *Specific costs will be determined at a later date, considering the design of facilities, identification of detailed resource protection needs, and changing visitor expectations.*
- *Actual costs to the National Park Service will vary depending on if and when the actions are implemented, and on contributions by partners and volunteers.*
- *Approval of the GMP does not guarantee that funding or staffing for proposed actions will be available.*
- *The implementation of the approved plan, no matter which alternative is selected, will depend on future NPS funding levels and servicewide priorities, and on partnership funds, time, and effort.*

Example of Narrative Format for Disclaimer

The cost figures shown here and throughout the plan are intended only to provide an estimate of the relative costs of alternatives. NPS and industry cost estimating guidelines were used to develop the costs (in 2008 dollars) to the extent possible, but the estimates should not be used for budgeting purposes. Specific costs will be determined in subsequent, more detailed planning and design exercises, and considering the design of facilities, identification of detailed resource protection needs, and changing visitor expectations. Actual costs to the National Park Service will vary depending on if and when the actions are implemented, and on contributions by partners and volunteers.

The implementation of the approved plan, no matter which alternative is selected, will depend on future NPS funding levels and servicewide priorities, and on partnership funds, time, and effort. The approval of a GMP does not guarantee that funding and staffing needed to implement the plan will be forthcoming. Full implementation of the plan could be many years in the future.

9. ESTIMATING COSTS OF ALTERNATIVES

Notes:

10. THE GMP/NEPA DOCUMENT: AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, CONSULTATION AND COORDINATION

This chapter focuses on the major sections of a GMP/EIS or EA, excluding the alternatives (addressed in Chapter 7) and the purpose/need/foundation in the introductory chapter (addressed in Chapters 4 and 6). To satisfy NEPA requirements, a GMP/EIS or EA typically has chapters devoted to the affected environment, environmental consequences, and consultation and coordination. The chapter begins with a discussion of impact topics, which tie together all of the chapters in a NEPA document.

10.1 DETERMINING IMPACT TOPICS

Impact topics are specific natural, cultural, or socioeconomic resources or values that could be affected by implementation of any of the alternatives described in the GMP, including the no- action alternative. They may include visitor use and experience and park operations. Impacts to these resources or values must be identified, and the intensity or magnitude, duration, and timing of the effect to each resource must be disclosed in the environmental consequences section of an EIS and EA.

The analysis of the park's fundamental and other important resources and values will identify which of those resources and values might potentially be affected by decisions made in the GMP. However, the category of environmental issues and impact topics is broader than fundamental or otherwise important resources and values. NEPA requires park managers and planners to consider any aspects of the human environment that might experience a significant effect as a result of plan implementation, or that might experience an effect that is highly controversial with the public, before the plan is implemented.

A good example of a highly controversial topic is the burros at Death Valley. This exotic, feral species would not meet the criteria of being a fundamental park resource or value; it would not meet the criteria of being an important resource or value protected by federal law; but it would meet the criteria of being a resource/value that would experience a greater than negligible effect under one or more alternatives, and the potential effects would meet the criteria of being highly controversial with the public. In this example the fate of the burros would be part of a larger planning issue related to the desired condition for one or more of the park's fundamental resources or values. But the impact topics would include not only the resources or values for which desired conditions were being debated, but also the burros themselves as part of the larger "human environment." The expansion of the planning perspective to include not only those things considered to be important to the park's plan, but also those other components of the larger human environment that might inadvertently

Years ago, coal miners carried canaries with them into the mines to detect lethal gases. Today, our national parks are our ecological canaries.

— George B. Hartzog Jr., *Battling for the National Parks*, 1988

be irretrievably or irreversibly altered, are exactly the kinds of considerations that NEPA regulations are intended to address.

The environmental screening form (ESF) in Appendix 1 of *The DO- 12 Handbook* and on the PEPC website, is an excellent tool for initially identifying potential impact topics beyond the park's fundamental resources and values. To ensure that particular components of the human environment are always considered during preparation of an EIS, the CEQ developed a list of mandatory topics that must be considered if they would potentially be affected by one or more of the planning alternatives. These topics include the following:

- possible conflicts between the proposed action and land use plans, policies or controls for the area concerned (including local, state, or Indian tribe) (40 CFR 1502.16, 1506.2(d)), and the extent to which the park will reconcile the conflict
- energy requirements and conservation potential (40 CFR 1502.16)
- natural or depletable resource requirements and conservation potential (40 CFR 1502.16)
- urban quality, historic and cultural resources, and design of the built environment (40 CFR 1502.16)
- socially or economically disadvantaged populations (see Environmental Justice, Executive Order (EO) 12898, for more information)
- wetlands and floodplains (100- year floodplains and 500- year floodplains where critical actions as defined in the NPS floodplain management guideline are involved) (40 CFR 1508.27)
- prime and unique agricultural lands (40 CFR 1508.27)
- endangered or threatened plants and animals and their habitats (including those proposed for listing on other state lists) (40 CFR 1508.27)
- important scientific, archeological, and other cultural resources, including historic properties listed on, or eligible for listing on, the National Register of Historic Places (40 CFR 1508.27)
- ecologically critical areas, wild and scenic rivers, or other unique natural resources (40 CFR 1508.27)
- public health and safety (40 CFR 1508.27)
- sacred sites (EO 13007)
- Indian trust resources (ECM 95- 2)

In addition, CEQ provides criteria for additional impact topics, which are included in *The DO- 12 Handbook*. Below are examples of some additional impact topics which are not specifically stated in the above list but are derived from the mandatory criteria and may be applicable to a GMP.

TABLE 10.1: EXAMPLES OF ADDITIONAL IMPACT TOPICS

adjacent landowners air quality archeological resources community service concessions cultural landscapes essential fish habitat ethnographic resources geologic resources hazardous materials land use	lightscape management local economy marine protected areas museum collections natural shoreline/coastal processes paleontological resources park operations public health and safety scenic/visual resources	soils soundscapes vegetation visitor access/accessibility visitor facilities visitor interpretation visitor orientation water resources wilderness wildlife
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Information about potential impact topics is further refined during the planning process as a result of input from external scoping. Once the preliminary alternatives are identified, the planning team focuses more specifically on those issues that may affect resources, and on what it is about those resources that might be affected.

Impact topics need to be “measurable” (qualitatively, if not quantitatively). As a result, the list of impact topics may be shortened to only those measurable things that would actually be affected by implementation of one or more of the alternatives. These then become the impact topics for the EIS. Impact topics or affected resources that (1) are not applicable to a park, (2) would not be affected by implementation of any of the alternatives, or (3) would experience only negligible or minor effects are generally identified as topics dismissed from further analysis and are not addressed in either the affected environment or environmental consequences sections of the EIS. The rationale for dismissing an impact topic from further analysis, however, must be fully explained in the GMP and included in the administrative record.

However, the following exceptions apply to this general guidance. Resources that are addressed by additional statutes — such as cultural resources, threatened and endangered species, and floodplains and wetlands — are generally addressed if there is potential for *any* (even negligible) effect; in fact, they and other topics are sometimes addressed even if there is no potential for effect. It is up to the team (resource specialists included) to determine the depth of analysis on any particular topic. Even if the potential for impact is determined to be negligible or nonexistent, the public may think the finding is controversial, in which case the analysis should be carried forward to fully disclose why the conclusion is what it is.

Following identification of the impact topics, the planning team determines what data will be needed to adequately describe each topic’s affected environment (see section “10.2. The Affected Environment”). Describing the affected environment helps define the context in which environmental impacts will occur. For each impact topic that may experience a discernible impact, the planning team must also identify and describe the potential impacts in terms of type, context, duration, and intensity (see section “10.3. The Environmental Consequences” below).

By focusing on specific impact topics, the planning team can avoid needless descriptions in the affected environment and unnecessary analyses of environmental consequences. This can also help decision makers and the public focus on the

important issues, impact topics, and differences among alternatives. For example, while it may be interesting, it is not necessary or desirable to provide a lot of general socioeconomic information in a GMP; many subjects, such as education and community history are not germane and should not be discussed. Instead, impact topics should focus on subjects that are or may be affected by park management, such as the number of incidental business permits, vendors, concessions, and other commercial activities in a park; interpretive programs for non- English speaking visitors who live nearby; and how and to what degree the local or regional economy (lodging, supplies, jobs, etc.) is dependent on the park.

The discussion of impact topics, both those being addressed and those being dismissed, typically occurs in the introductory chapter of the GMP/EIS or EA.

10.2 THE AFFECTED ENVIRONMENT

The affected environment section of the EIS succinctly describes the existing natural, cultural, and socioeconomic resources that would be affected either directly or indirectly by implementation of any of the alternatives. The description of the no- action alternative and the affected environment together provide a baseline for later identifying the potential environmental impacts of the action alternatives. The purpose of describing the affected environment is to help define the context in which the impacts will occur, as context is one factor used in determining the significance of an impact.

Collecting accurate and adequate data on the present status (location, nature, condition, scope, size, etc.) of potentially affected natural, cultural, and socioeconomic resources is critical for the later identification and description of impacts, and such data must be available before useful NEPA analysis can begin. The list of natural, cultural, and socioeconomic resources in the ESF is a good beginning point for determining which resources to consider in describing the affected environment. In addition, CEQ requires that certain topics be considered in an EIS, if applicable (see section “10.1. Determining Impact Topics” above).

Data should not be collected to describe resources that are unlikely to be affected by the proposed alternatives. The affected environment does not describe the entire existing environment — only those resources that are relevant to the decisions to be made. For example, if the alternative zoning schemes would have no effect on geology, prime or unique farmland, or threatened or endangered species and their habitat, or if any potential impacts to such resources would be negligible or minor (i.e., the impact would be at a low level of detection), those resources may be dismissed from further analysis and not described in either the affected environment or the environmental consequences sections. By focusing on specific impact topics the planning team can avoid needless descriptions in the affected environment and help decision makers and the public focus on the important differences among the alternatives.

Once alternatives, issues, and impact topics have been defined, an analysis area or boundary should be identified and described for each affected resource. These boundaries may or may not be the same as the project boundary. For example, the

analysis boundary for fish might encompass an entire watershed, whereas the analysis boundary for a rare plant species might include only an acre on the southern slope of a particular mountain. For a historic structure, the analysis boundary might be confined to the footprint of the structure itself, whereas the analysis boundary for a cultural landscape could encompass landforms, soils, vegetation, water courses, and associated cultural values and traditions. In most instances the geographic boundary of the analysis area will be the park boundary (except when discussing cumulative impacts). Two obvious examples where the analysis area will extend beyond a park's boundary are the socioeconomic environment and any areas proposed for boundary adjustments. Sometimes the boundary of the analysis area for a particular resource will also change with different alternatives. For example, the proposed locations for the construction of facilities that vary by alternative would require analyzing impacts to soils and vegetation in each location. Fully describing the affected environment usually requires knowledge about the extent of potential impacts, so the descriptions of the affected environment for each resource may be further refined as the impact analysis proceeds.

Descriptions of the affected environment should be no longer than needed to understand the effects of the proposed alternatives. Because an EIS is to be analytic rather than encyclopedic, verbose descriptions of the affected environment are no measure of adequacy. Background material, highly technical material, and less important descriptive information should be either appended, summarized, or incorporated by reference. Material to be incorporated by reference should be briefly summarized and its relevance explained, and the material itself must be reasonably available for inspection by potentially interested persons within the time allowed for comment on the draft EIS. Materials that are commonly incorporated by reference (and available as part of the project file) include other NEPA documents, lists of common plants and animals, historic resource studies, detailed air and water quality data and standards, separate scientific studies, compilations of demographic and socioeconomic data, and published works.

Reference: *The DO- 12 Handbook* (sec. 2.8.A and 4.5.F)

10.3 THE ENVIRONMENTAL CONSEQUENCES

When a large- scale conceptual plan such as a GMP/EIS is prepared, the information in the impact analysis can and should be less detailed than the information in an implementation plan. In most GMP/EISs, it will be difficult to conduct the traditional impact analysis where the focus is on quantifiable impacts (the amount of acreage disturbed or the number of archeological sites affected) because of the conceptual nature of the plan. This section provides a brief overview of NEPA analysis basics, and then discusses some of the recommended methodologies for GMP- level analysis. Wherever possible, real- life examples are provided.

10.3.1 Elements of the Impact Analysis

An impact analysis requires the synthesis of existing environmental information, project and alternative descriptions, and resource impact literature. A good analysis is concise, clear, and to the point; it focuses on real environmental issues; and it uses

accurate scientific analysis. An impact analysis must describe the direct, indirect, and cumulative impacts of the alternatives on resources of concern, including the context and intensity of these impacts.

Following is a brief overview of some of the key considerations when preparing an impact analysis. For more comprehensive guidance on impact analysis, refer to the following CEQ documents: “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act” (40 CFR 1500–1508), and “The 40 Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” (CEQ 1980), and *The DO- 12 Handbook*.

- *Direct impacts:* Effects caused by the alternatives at the same time and in the same place as the action.
- *Indirect impacts:* Effects caused by the alternatives that occur later in time or farther from the action, but are still reasonably foreseeable.
- *Cumulative impact:* The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR 1508.7)
- *Context:* The significance of an action must be analyzed from several perspectives, such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site- specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long- term effects are relevant. (40 CFR 1508.27).
- *Intensity:* Intensity refers to the severity of the effect (40 CFR 1508.27). Factors that have been used to define the intensity of effects include magnitude (relative size or amount of an effect), geographic extent (how widespread the effect might be), duration (how long the impact will last), and frequency (whether the impact is a one- time event, intermittent, or chronic). In describing the magnitude and duration, ranges rather than a fixed number may be used to better reflect the state of the knowledge and to allow for future flexibility if the action must be modified in response to other concerns.
- *Quality:* An impact can be either detrimental or beneficial.

Impact Threshold Definitions

Impact thresholds (also called impact intensity definitions) should be defined for terms describing the relative magnitude, duration, geographic extent, and frequency

of impacts. These definitions allow the reader to understand how planning team measured the context and intensity (negligible, minor, moderate, or major) of an impact. Impact threshold definitions should be quantitative when possible (e.g., numeric state standards may be used to define thresholds for water quality); otherwise, the definitions may be expressed in qualitative terms or using best professional judgment due to the conceptual nature of the alternatives and impacts. Impact threshold definitions will vary depending on the type of resource being analyzed, the condition of the resource, and the importance of the resource as an issue (as identified through scoping).

When defining impact thresholds, use the following guidelines:

- Threshold definitions should be specific enough so they are not interchangeable among several topics. The definitions should include resource/ value-specific factors (e.g., loss of individuals versus populations when analyzing wildlife impacts).
- Make sure the definitions discuss factors that can actually be measured in the analysis (e.g., it is seldom possible to analyze the effects on genetic variability in an analysis, so this factor would not be a part of the impact threshold definition).
- Make sure definitions do not overlap. Test various impact scenarios to make sure they fit only one impact level definition.
- Use parallel language in definitions. For example, if you discuss wetland functions in the definition of minor impacts, then you should discuss wetland functions for negligible, moderate, and major impacts, as well.
- Avoid mixing duration (short term vs. long term) parameters in the intensity threshold definitions — time should not be part of the definition of the intensity of the impact.
- The threshold definitions should take into account both adverse and beneficial impacts.

In cases where specific guidance about impact thresholds is provided in law, such as under section 7 of the Endangered Species Act and section 106 of the NHPA, use the language included in the acts. For example, when discussing impact thresholds for threatened and endangered species, incorporate the terms “no effect,” “not likely to adversely affect,” and “likely to adversely affect” in the impact thresholds. For cultural resources the impact threshold definitions should be consistent with 36 CFR 800.5 on determining adverse effects, tailored to the particular cultural resources in the park. (See “10.3.6. GMPs and Section 106 of the NHPA.”)

It should be noted that there is no agreed upon standard impact threshold definitions for natural or cultural resource impact topics in GMP/NEPA documents; different GMPs use different definitions. Two examples of impact threshold definitions for natural resources from the 2009 *Big Cypress National Preserve* and the 2006 *Great Sand Dunes NP GMP/EIS* are included in Appendix I.1. Examples of other impact threshold definitions are available at <http://inside.nps.gov/regions/custommenu.cfm?lv=3&rgn=1026&id=5687>. For

additional information on impact threshold definitions see *The DO- 12 Handbook* (sec. 4.5.G).

For cultural resource impact thresholds, Appendix I.1 includes standard language provided by the Cultural Resource Program. This recommended language may be used as a basis for developing text in the methods section for assessing impacts on cultural resources in the environmental consequences section of a GMP/EA or EIS. The standard language is generic; for increased usefulness, it should be modified for application in specific situations. For additional commentary on problems encountered in applying cultural resource impact intensities, see <http://planning.nps.gov/tools.cfm>.

Cause-and-Effect Relationship

The NEPA issues identified during the scoping process focus the impact analysis. An issue statement describes the cause- and- effect relationships between actions and resources. While the issue statements *describe* the relationship between actions and resources, the impact analyses *evaluate* the relationships in terms of context and intensity (magnitude, extent, duration, and frequency of effect).

In describing impacts, the chain of cause and effect must be clear: an action causes something to happen, affecting a resource or value in some manner defined in terms of context, quality, magnitude, extent, duration, and frequency. The following example shows the chain of cause and effect:

TABLE 10.2: EXAMPLE OF IMPACT ANALYSIS

Example of Analysis for One Impact Topic (Seabird Habitat)	
Background and Methodology:	A study (Braun 1978) has demonstrated that repeated encounters with motorized vessels tend to displace some molting bird species and disrupt nesting activities, causing the birds to seek shelter at outlying lakes. Motorized vessels have caused flushing of adults from nests, which results in lowered success of egg incubation, lowered success of rearing chicks, and increased predation of chicks. This disturbance and relation can also have serious physiological effects on adult birds, stressing the birds and requiring them to expend energy from already depleted reserves. When subjected to repeated disturbances, molting seabirds and waterfowl tend to abandon sites. Therefore, any disturbance of nesting or molting birds is considered to be a major effect.
Analysis of Impact:	
The action that causes something to happen:	Under alternative A motorized vessel use would be eliminated from all sensitive seabird/waterfowl habitat in the Beardslee Islands, Adams Inlet, and Skidmore Bay.
This is what happens	Eliminating motorized vessel use would ensure that seabirds and waterfowl would be able to use this habitat for molting, nesting, and feeding without the disturbances caused by motorized vessels and associated onshore human activity.
This is the effect on the resource evaluated in terms of quality of impact, context, intensity, and duration	This action would result in a major beneficial effect on these species. The current populations would be perpetuated over the long term in all the identified habitat areas. This is especially important because the park provides the last large uninterrupted stretch of seabird and waterfowl habitat in the region.

Mitigation Measures

Mitigating measures are defined as constraints, requirements, or conditions imposed to reduce the significance of or eliminate an anticipated impact to environmental, socioeconomic, or other resource values from a proposed action. The CEQ regulations define mitigation measures in 40 CFR 1508.20 as

- (a) avoiding the impact altogether by not taking a certain action or parts of an action
- (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation
- (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment
- (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- (e) compensating for the impact by replacing or providing substitute resources or environments

A GMP/EIS or EA must include and analyze mitigation measures “even for impacts that by themselves would not be considered significant.” All “relevant, reasonable mitigation measures that could improve the project are to be identified,” even if they are outside the jurisdiction of the National Park Service. These measures usually are listed at the end of the alternatives chapter so that impacts are evaluated based on the mitigated alternatives. In other words, in analyzing environmental impacts, it is assumed that all of the proposed mitigation measures would be followed. The impact analysis should also examine the effectiveness of the mitigation measures.

Some mitigation measures may be specific to one alternative, while others may apply to all of the action alternatives. A number of mitigation measures that are commonly used in GMPs are included in Appendix I.3.

An important caution should be kept in mind when identifying GMP mitigation measures in an EIS or EA. Both RODs and FONSI must identify the mitigation measures that will be implemented along with the selected alternative. A ROD or FONSI is, in some respects, a “contract” with the public, committing the agency to implementing the mitigation measures and to monitoring the results. Therefore, it is important that the agency consider budgetary projections when making this commitment. In other words, a planning team should only include a mitigation measure if it is going to be implemented by a park staff. If a mitigation measure were identified, but not followed, it could call into question the validity of the environmental analysis and possibly open the GMP to legal challenge.

Cumulative Effects

For a cumulative impact analysis the focus is on the impacts of past, present, and reasonably foreseeable future actions that are outside the scope of the plan. To understand how cumulative impacts are determined, it is helpful to think of a formula: $x+y=z$. In the cumulative analysis, x is the impact on the resource of the proposed

action alone; y is the impact on the resource of other past, present, and reasonably foreseeable actions; and z is the total (or cumulative) impact when all the impacts from all of these actions are combined.

The cumulative effects analysis should include the following elements:

- A description of the other past, present, and reasonably foreseeable actions that could affect the resource (i.e., other than those actions within the scope of the plan/project) — These include NPS management actions that are occurring outside the scope of the GMP, such as the reintroduction of an endangered species or ongoing maintenance of a road.
- A description of the impact of the past, present, and reasonably foreseeable action or actions on the resource — The impacts should be quantified whenever possible and interpreted in terms of overall intensity.
- A summary of the effects that the action alternative alone would have on the specific resource
- A description of the cumulative effects on the resource — the overall intensity of the impacts when the impacts of the past, present, and foreseeable actions are combined with the impacts of the action alternative. It is important to state how much the action alternative contributes to the overall cumulative impact intensity. In many cases an alternative action will add a very small incremental impact (beneficial or adverse) to what is already happening to a resource; that is, the impacts of the action alternative will make only a small contribution to the overall beneficial or adverse cumulative impacts.

It is often difficult to identify the cumulative impact when considering multiple actions, particularly if there are varying beneficial or adverse impacts on a resource. In these situations, identifying the cumulative impact becomes a judgment call backed up by clearly stated assumptions.

TABLE 10.3: EXAMPLE OF A CUMULATIVE IMPACT

Cumulative Impact	Past actions outside the park have resulted in extremely fragmented seabird and waterfowl nesting habitat. The local community development plan calls for an increase in beach development for recreational activities, resulting in further loss of waterfowl nesting habitat throughout the region. Adding the major detrimental impacts of past and projected future developments on waterfowl nesting habitat plus the major positive effect of eliminating motorized vessel use in the park would result in an overall minor, adverse, long-term, cumulative impact.
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In analyzing cumulative impacts for a GMP, planning teams should develop a cumulative impact scenario, which is presented at the beginning of the environmental consequences chapter. This scenario should identify which past, present, and future actions are being considered in the analysis. The scenario should also distinguish between NPS actions that are occurring (or will occur) independently of the GMP (e.g., an approved road rehabilitation project) and those that are due to non- NPS

actions, either within or outside the park (e.g., actions, projects, or plans of governmental agencies, adjacent landowners, businesses).

Appendix I.2 includes some additional general considerations in analyzing cumulative impacts, and an example of the *Great Sand Dunes Draft GMP/Wilderness Study/EIS* cumulative impact scenario and the analysis of one impact topic for the preferred alternative.

Climate Change Considerations

Planning teams need to consider the effects of climate change when analyzing the impacts of the alternatives being proposed in GMPs. When considering climate change in a GMP/NEPA document, two key questions should be addressed:

1. What is the contribution of the GMP alternative to climate change, as indicated by greenhouse gas emissions associated with the alternative?
2. What is the impact of climate change on park resources and visitors, and specifically the resources and visitors that will be affected by the GMP alternative?

With regard to question #1, it is likely for most GMPs that the contribution resulting from the alternatives would be negligible and this possibility can be dismissed in the NEPA document. However, to defend this assertion planning teams may want to roughly estimate greenhouse gas emissions due to the alternatives. For parks in the Pacific West Region, GMP planning teams have been directed to use the CLIP (Climate Leadership in Parks) tool to estimate greenhouse gas emissions in order to prove a baseline for comparison of potential alternatives and their relative impacts on carbon emissions (see the July 17, 2009, Pacific West Region vision for climate change; for more information on the CLIP tool, see <http://inside.nps.gov/waso/waso.cfm?prg=949&lv=4>).

Planning teams should refer to the WASO- EQD February 2009 draft interim guidance in addressing climate change in GMP/NEPA documents. This guidance outlines a number of recommended steps for considering climate change throughout the NEPA process. However, it should be stressed that this guidance is draft and subject to change. Planning teams should consult with their regional environmental coordinator and WASO- EQD if they have any questions in considering climate change in their GMP/NEPA documents.

Impairment Determination

The National Park Service Organic Act of 1916 states that the service

shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified . . . in such manner and by such means as will leave them unimpaired for the enjoyment of future generations

In addition to avoiding impairment, NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give NPS managers discretion to allow certain

impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impacts do not constitute impairment of the affected resources and values.

The *NPS Management Policies 2006* leave the determination of impairment to the responsible park manager and direct that an action should be considered to constitute impairment if, in the manager's professional judgment, the action "would harm the integrity of the park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values." The policies further state (sec. 1.4.5) that determining whether an impact meets this definition (i.e., would harm the integrity of the park resources or values) depends on all of the following:

- the particular resources and values that would be affected
- the severity, duration, and timing of the impact
- the direct and indirect effects of the impact
- the cumulative effects of the impact in question along with other impacts that are in existence

An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation meets one or more of the following criteria:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park
- identified in the park's GMP or other relevant NPS planning documents as being of significance

An impact would be less likely to constitute impairment if it is an unavoidable result (which cannot reasonably be further mitigated) of an action necessary to preserve or restore the integrity of park resources or values.

Impairment may occur from visitor activities; NPS activities in the course of managing a park; activities undertaken by concessioners, contractors, and others operating in the park; or as a result of external actions. Impairment can occur from inaction as well as action. Impairment decisions also need to be put into context. This means considering the action within the context of the purposes for which the park was established and the desired future conditions. One should also consider existing conditions in the park, the relative impacts from activities within and outside the park, and the incremental and cumulative effect of potential impacts from a proposed or ongoing activity.

The characterization of impacts as negligible, minor, moderate, or major provides a basis for assessing whether the impact is likely or not likely to result in an impairment of park resources or values. Not all major or significant impacts under a NEPA analysis are impairments. However, all impairments to NPS resources and values would constitute a major or significant impact under NEPA. If an impact would

result in impairment, the action must be modified to lessen the impact level. If the impairment cannot be avoided by modifying the proposed action, that action cannot be selected for implementation and should be dropped from further consideration.

The DO- 12 Handbook requires that park planning documents present impairment findings in the environmental consequences section of the NEPA document. At the end of the discussion of impacts for each environmental resource affected by each alternative, a brief conclusion section should summarize all major findings, including whether or not resource impairment is likely to or would occur. The rationale for the impairment finding should also be included in the NEPA document. In addition, an overall impairment finding should be provided for each alternative.

The document *Interim Technical Guidance on Assessing Impacts and Impairment to Natural Resources* (NPS 2003b) provides considerable detail about impairment background, methods, tools, applicable laws and regulations, and impact and impairment examples. Specific information is provided for biological resources, watersheds, air resources, lightscapes, soundscapes, geological resources, and ecosystems. The interim impairment guidance is available at <http://www2.nrintra.nps.gov/ard/docs/nrimpairment.pdf>. The NPS website (www.nps.gov/protect) also contains information on impairment.

GMP alternatives should not contain actions that would or could result in impairment to a park's resources or values. The planning team typically should state that any impacts that do occur would not be at a level that would constitute an impairment of the park's resources and values. However, the issue of possible impairment may not always be clear cut and may vary from case to case. It is recommended that if questions arise on this topic then the regional environmental coordinator and/or the WASO- Environmental Quality Division be consulted.

Unacceptable Impacts

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the NPS *Management Policies* 2006 (sec. 1.4.7.1) provided an approach to help ensure that impairment will not occur. This section of the policies provides guidance on unacceptable impacts:

These are impacts that fall short of impairment, but are still not acceptable within a particular park's environment. Park managers must not allow uses that would cause unacceptable impacts; they must evaluate existing or proposed uses and determine whether the associated impacts on park resources and values are acceptable.

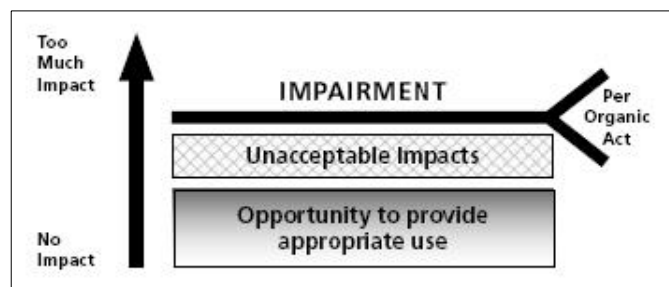
Virtually every form of human activity that takes place within a park has some degree of effect on park resources or values, but that does not mean the impact is unacceptable or that a particular use must be disallowed. Therefore, for the purposes of these policies, unacceptable impacts are impacts that, individually or cumulatively, would

- ▶ be inconsistent with a park's purposes or values, or
- ▶ impede the attainment of a park's desired future conditions for natural and cultural resources as identified through the park's planning process, or
- ▶ create an unsafe or unhealthful environment for visitors or employees, or

- ▶ diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values, or
- ▶ unreasonably interfere with
 - park programs or activities, or
 - an appropriate use, or
 - the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park.
 - NPS concessioner or contractor operations or services

The following graphic illustrates the relationship between appropriate use, unacceptable impacts and impairment.

FIGURE 10.1: MANAGING FOR RESOURCE CONSERVATION



Conclusions

At the end of the discussion of impacts for each resource impact topic, a brief conclusion should summarize the impact and cumulative impact to the resource (e.g., “During the summer season, the alternative would have localized, short- term, moderate, impacts on Dall sheep, which when added to other ongoing and projected impacts would constitute regional short- term moderate impacts.”). The conclusion should also include a statement about whether the alternative would impair park resources and values. Statements in the conclusion should be supported by the evidence presented in the analysis; no new information should be brought in that is not already included in the analysis, although the conclusion may interpret impacts.

TABLE 10.4: EXAMPLE OF A CONCLUSION STATEMENT

Conclusion	This alternative would have a long-term, major, beneficial effect on sensitive seabird and waterfowl habitat in the region. This beneficial effect would be partially offset by the regional negative effects on this habitat. However, the net effect would be an increase in the amount of sensitive seabird/waterfowl habitat in the region and the provision of the only large uninterrupted stretch of such habitat in the region. No impairment of seabird/waterfowl habitat would result from this alternative.
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10.3.2 Scientific Data and Other Information

The Thomas Bill requires that data from scientific study be used for all park management decisions, including those in a GMP/EIS.

The Secretary shall take such measures as are necessary to assure the full and proper utilization of the results of scientific study for park management decisions. In each case in which an action undertaken by the Park Service may cause a significant adverse effect on a park resource, the administrative record shall reflect the manner in which unit resource studies have been considered.

Title II, Section 206, of the Thomas Bill (PL 105- 391)

This is not just the law; it is good planning. Analysts should strive to make a reasoned connection between technical and scientific information and final agency action.

Ideally the data used for impact analyses in a GMP/EIS will be specific to the park; however, this is not always possible. Therefore, the analysis must often rely on data from studies conducted in similar areas or for similar situations. A literature search will produce a list of studies with findings that may be relevant to the GMP/EIS analysis. Appendix L provides a comprehensive overview of the kinds of data needed to support various kinds of planning, including general management planning, along with potential data sources.

Data also may be available for certain parts of a park but not for the entire unit. In this situation, the analysts should explain what is known about the impacts of an action in a particular area or section of the park based on existing research, then extrapolate to the entire park. For example, if research has shown that hikers are displacing moose from the Hidden Valley area of Victory National Park, it may be assumed for analysis purposes that moose are also being displaced by hikers in other valleys within the park that have similar vegetation/terrain and levels of hiker use.

Analysts should coordinate with natural and cultural resource managers to incorporate results of inventory and monitoring and to ensure that where useful and credible data have been collected and analyzed, they are applied in planning and impact analysis. Even if information necessary to analyze impacts is incomplete or unavailable, or the costs of obtaining it are exorbitant, CEQ regulations still require agencies to make a good faith effort in conducting an analysis by requiring the agencies to take the following steps (40 CFR 1502.22):

- state that such information is incomplete or unavailable
- state the relevance of that information to evaluating reasonable foreseeable significant adverse impacts on the human environment
- summarize existing credible scientific evidence which is relevant to evaluating such impacts
- evaluate such impacts based on theoretical approaches or research methods generally accepted in the scientific community

“Existing credible scientific evidence” can include data collected from monitoring the results of past actions. For example, if certain areas of a park have been closed in the past to visitor use (for safety or resource protection purposes), the findings from monitoring that situation can be used to support an analysis of impacts for similar closures proposed in the GMP/EIS. Even if no formal monitoring has been conducted, it may be possible to use anecdotal information from park staff about the effect of the existing closures.

The author(s) of the resource analysis sections of the GMP/EIS or EA should be subject matter experts. If it is not possible to have subject matter authors for all relevant topics, each analyst should meet one- on- one with park, region, and subject matter experts to discuss and determine significant impacts and other analysis information. For particularly complex or potentially significant impacts, time should be provided for peer review of the analysis by respected scientists and others with a good understanding of the resource topic. Relevant subject matter experts should have adequate opportunity to review the analysis text and provide comments.

It is important to cite the source of the data and to provide references in the GMP/EIS bibliography, even if the data are simply anecdotal observations from park staff or others.

10.3.3 Making Assumptions for the Purpose of Analysis

It is important to describe major assumptions that have been used to determine impacts.

[A]ssumptions must be spelled out, inconsistencies explained, methodologies disclosed, contradictory evidence rebutted, record references solidly grounded, guesswork eliminated, and conclusions supported in a “manner capable of judicial understanding.”

E.I. duPont de Nemours & Co. v. Train, 430 US 112 (1977)

Assumptions should be spelled out, including changes in visitor demographics, trends in popularity of various visitor activities, expected changes in technology (e.g., increase of four- stroke snowmachines over two- stroke snowmachines), possible climate and ecosystem changes as a result of global warming, etc.

For NPS GMPs, a key assumption is that the desired conditions described for each of the management zones, and the related indicators and standards, will be met or maintained. Where existing conditions do not match desired conditions or standards, a further assumption is that management will take action to remedy this.

For programmatic GMP analyses, assumptions also must be made regarding the geographic and temporal boundaries for analysis for each resource. These considerations are described under section “10.2. The Affected Environment”).

Assessing the risk of an action occurring that might have significant environmental effects (e.g., a fuel spill) also involves making assumptions. The probability of such an event occurring cannot be precisely stated and, thus, must be based on the assump-

tions of experts; these assumptions should be made clear in the methodology section of the analysis.

Before the planning team begins to write their impact analysis sections, it is a good idea for the team to create a list of the major assumptions that everyone should use — such as whether visitor use or a certain type of visitor activity is increasing or decreasing.

The 2005 Denali *Backcountry Management Plan / EIS* includes a good discussion of the assumptions that were used to determine impacts (see archived projects at <http://parkplanning.nps.gov/parkHome.cfm?parkId=9>).

10.3.4 Tools and Methodology for Impact Analysis

The CEQ “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act” stipulate that

Agencies shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement.

—“Methodology and Scientific Accuracy” (40 CFR 1502.24)

The CEQ manual, *Considering Cumulative Effects under the National Environmental Policy Act* (CEQ 1997), provides several methods for analyzing cumulative effects. Although the manual focuses on the analysis of cumulative effects, many of the methods are also applicable to the analysis of individual direct and indirect impacts of a GMP alternative. Those that are most relevant to the analysis of direct and indirect impacts in a GMP/EIS or EA are presented below.

The level and type of analysis completed by a planning team depends on the park; the issues and impact topics; the degree of controversy; and the time, funds, and expertise available to the planning team. The analysis methods commonly used by a GMP planning team include discussions with park staff and other experts, literature searches, and GIS analysis. The other methods listed below have been used less frequently for GMPs or not at all, but can also provide useful information. For additional information on these methods and examples of their use by multiple agencies, refer to Appendix A in the CEQ manual.

Analysis methods should be developed and tested early in the planning process, as the information they provide may be used to develop and modify alternatives, as well as to predict impacts. (See section “7.1. Information and Analysis Needed before Alternative Development.”)

Questions, Interviews, and Panels

Simple brainstorming of experts and other interested parties can be an effective technique for identifying potential effects. Information gathering can be expanded to include structured interviews with key opinion leaders, indigenous peoples, and technical experts.

A common feature of information gathering and strategizing is the use of a multi-disciplinary panel of experts. These panels can bring consensus to subjective judgments and are useful for designing the assessment method, evaluating the significance of effects, and comparing alternatives. The Delphi method, fuzzy set models, and panels are all examples of this method.

Overlay Mapping and GIS

Overlay mapping and GIS technology incorporate location information into effects analysis. Simple mapping characterizes the spatial aspects of natural and cultural resources, ecosystems, cultural landscapes, and human communities and helps set the boundaries of the analysis. Any number of resource data and zoning layers can be overlaid to determine what resources would be affected by an action in the alternative. Overlay mapping can directly evaluate effects by identifying areas where effects will be greatest. Mapping and GIS technology can also address concerns that are difficult, if not impossible, to address with other methods, such as landscape connectivity. Using GIS technology enables planners to determine the acreage of areas within management zones, and/or the acreage of areas affected by general actions (e.g., areas being proposed for wilderness in an alternative or the acreage of the park open or closed to the public, or open with restrictions).

A common map overlay approach combines thematic maps of different landscape features to rate areas or resources as to their suitability for development (“opportunities”) or risk from degradation (“constraints”). Suitability ratings can be used to express the responses of resources, ecosystems, and human communities in the absence of more sophisticated quantitative cause- and- effect models. Examples of overlay mapping can be found in the GMPs for Zion NP, Olympic NP, Hovenweep NM, Abraham Lincoln Birthplace NHS, and Colorado NM.

Trends Analysis

A trends analysis assesses the status of resources, ecosystems, and human communities over time and usually results in the graphical projection of past or future conditions. Changes in the occurrence or intensity of stress over time can also be determined.

A trends analysis can identify historical cause- and- effect relationships between stresses (actions) and resources or ecosystems. Common effects relationships can be used to predict future effects whenever the environmental conditions are similar. Historical trends may also reveal threshold points where effects become significant or qualitatively different.

Changes in the condition of resources or ecosystems can be illustrated in both simple and complex forms. A simple trends analysis might produce a line graph showing decreasing numbers of animals from annual surveys. Changes in habitat patterns might be illustrated with a series of figures, or in a three- dimensional graphic where the amount of change is portrayed on the vertical axis. Video simulations can be used to show complex changes in geographic or aesthetic resources. Time- series

information from aerial photographs and satellite imagery are increasingly available for trends analyses across the United States.

Modeling

Modeling is a powerful technique for quantifying the cause- and- effect relationship leading to environmental effects. Developing project- specific models requires substantial resources and time. For this reason, effects analyses will most often use or modify existing models. The lack of baseline data or project- specific data also can limit the use of sophisticated models. Nevertheless, modeling holds considerable promise for analyzing impacts. In general, the use of models requires that an agency invest in (1) developing a given model or technique, or (2) obtaining baseline data for use in an existing model. Examples where effects are routinely modeled include

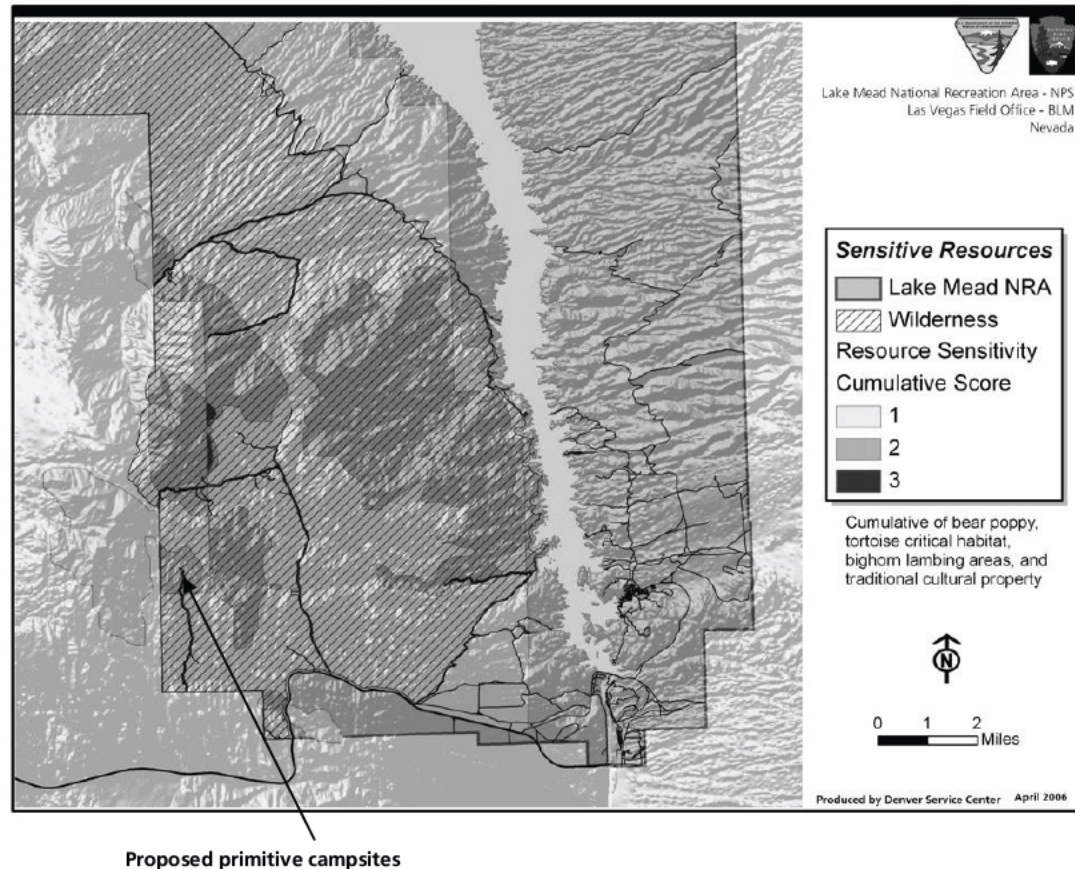
- hydrologic regime models
- soil erosion models
- sediment transport models
- species habitat models
- regional economic models
- visitor use simulation models

Models that are easily defended and generally recognized in the scientific community form the basis for most practical work under NEPA, while more sophisticated models are used on a case- by- case basis. For reader understanding, the underlying assumptions behind a model must be made explicit.

For GMPs models may be useful to analyze the impacts of allocating management zones and other GMP actions. To do this, the park could develop a model that incorporates known and assumed information about visitor use patterns and then use this model to predict the changes in use based on the alternative zone allocations and actions.

GIS and Modeling

GIS technology should be used to conduct modeling to predict and quantify potential impacts to such resources as vegetation, wildlife habitat, and cultural resources. Such “what if” modeling can be invaluable when determining the environmental consequences of proposed actions. Areas of potential impact can be delineated and the size calculated. In the hypothetical example shown below, proposed campsites would occur in designated wilderness and in an area that has two sensitive resources. Thus the impacts of this development would have to be carefully analyzed or a different location chosen.

FIGURE 10.2: EXAMPLE OF USING GIS TO MODEL IMPACTS

GIS can be used to create viewsheds and conduct viewshed impact analysis. This technique identifies what can be seen from a specific observation point in all directions, along a linear feature such as a trail, or along a line between two points.

Table 10.5 indicates other modeling that can be done to analyze impacts of a specific development or an alternative.

TABLE 10.5: EXAMPLES OF GIS IMPACT ANALYSIS MODELS

Analysis	Possible Inputs
Indicate potential impacts on suitable habitat for sensitive species	Habitat delineations
Indicate anticipated visitor circulation patterns and possible congestion points	Roads, trails, attraction points, entrance and egress to an area
Impacts on resources from development	Soils, slope, floodplains, sensitive resources
Illustrate impacts on a viewshed from proposed development	Digital Evaluation Model (DEM), viewpoint data

Ecosystem Analysis

An ecosystem or watershed approach to environmental analysis can demonstrate the interconnectedness of park resources and values. Ecosystem principles involve three basic concepts: (1) taking a “big picture” or landscape- level view of ecosystems; (2) using a diverse suite of indicators, including community- level and ecosystem- level indices; and (3) addressing the myriad interactions among ecological components that are needed to sustain ecosystem functioning.

Constructing precise models of ecosystem structure and function usually exceeds the capabilities of NEPA practitioners. However, considerable progress has been made in applying the principles of ecosystem analysis to analyzing effects by extending considerations beyond species to the ecosystem and by looking at landscape- scale processes such as habitat fragmentation, watershed processes, abundance or density of habitats, habitat proportion, patch size and perimeter- to- area ratios, amount of edge, etc.

Social Impact Analysis

Social impact analysis deals with the social meanings of a change from the different perspectives of various affected groups. One method of measuring the social meaning of a change is to formally or informally tap the knowledge of opinion leaders within an affected group, such as American Indians or others with cultural ties to an area, to determine the values they assign to each change. Ethnographers can be very useful in conducting social impact analyses.

10.3.5 Sustainability, Long-Term Management, and Impact Analysis

Considerations of the long- term impact and the effect of foreclosing future options should also be addressed in a GMP/EIS because these are ideas that Congress put forward as the purpose of both NEPA (sec. 101(b)) and the NPS Organic Act. The environmental consequences section of each alternative must also include a section that focuses on the following discussions. (Note: This requirement applies to an EIS, but not to an EA.)

The Relationship between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity (NEPA 102(c)(iv))

This section explores whether any long- term management possibilities, or the productivity of park resources, are being traded for the immediate use of land. Will taking action in this case in combination with other actions have an impact on a particular ecosystem? Is the action being taken something that will affect future generations — is it a sustainable action that can continue over the long- term without environmental problems?

Any Irreversible and Irretrievable Commitments of Resources (NEPA 102(c)(v))

An impact is irreversible if it cannot be changed over the long term or is permanent. An effect is irreversible if the resource cannot be reclaimed, restored, or otherwise returned to its condition prior to disturbance. For example, a proposal to rehabilitate a cultural feature (building) involving construction adjacent to habitat for nesting birds may have irreversible impacts on the birds if they abandon the nests and do not return to nest. An irretrievable commitment of resources is a loss of something that, once gone, cannot be replaced. Some cultural resource specialists prefer the term irretrievable over irreversible when describing impacts to cultural resources. For example, if the park chose to avoid potential irreversible impacts to the birds, and deterioration of the building continued, the loss of the building's cultural significance and integrity would be irretrievable (something that could not be returned, or retrieved, in the future). It is less important to worry about the "right" category than it is to be thorough in the disclosure to the public of any long-term, permanent effects to park resources.

Following are two more examples of discussions of irreversible and irretrievable commitments of resources:

TABLE 10.6: EXAMPLES OF IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Sequoia/Kings Canyon NP GMP/EIS
<p>The loss of soils and wildlife habitat would continue, primarily in areas of concentrated use and development. Limited amounts of nonrenewable resources from local previously impacted areas, such as rock, would be reused in park operations and construction projects.</p> <p>Cultural resources that were removed or allowed to molder would be irreversible and irretrievable. Decisions related to the method of removal or treatment would be determined in consultation with the state historic preservation officer, and all resources would be fully documented as a mitigation strategy. The removal of some hydroelectric facilities would result in the irreversible and irretrievable loss of historic facilities associated with the Kaweah no. 3 hydroelectric power generation system.</p>
Dry Tortugas NP GMP/EIS
<p>Although the risks of resource impacts would be further reduced by the management actions proposed under this alternative, instances of irreversible or irretrievable commitments of natural or cultural resources might occur. For example, removing artifacts from a shipwreck or disturbing significant associated archeological resources would compromise the information potential of the site and result in an irreversible commitment of resources. Significant sites contain unique data that cannot often be replicated or recovered once lost or disturbed.</p> <p>Proposed management actions would contribute to resource protection and preservation and would be expected to minimize the occurrence of irreversible or irretrievable impacts.</p> <p>Limited amounts of nonrenewable resources would be used for construction projects and park operations, including energy and materials. These resources would be basically irretrievable once they were committed.</p>

Any Adverse Impacts that Could Not Be Avoided (NEPA 102(c)(ii))

If the action will result in major impacts that cannot be fully mitigated or avoided, these impacts should be described in this section. Focus this section on major impacts.

10.3.6 GMPs and Section 106 of the NHPA

Section 106 of the NHPA (16 USC 470 et seq.) requires federal agencies to take into account the effects of their actions on historic properties before they are implemented. Historic properties are properties that are listed on the National Register of Historic Places or that meet the criteria for listing. In the National Park Service historic properties are cultural resources classified as archeological resources, prehistoric or historic structures, cultural landscapes, and ethnographic resources.

The consultative and review process mandated by section 106 is outlined in ACHP regulations issued in “Protection of Historic Properties” (36 CFR 800). According to the regulations, the section 106 process

seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties

—36 CFR 800.1[a]

The section 106 regulations do not require that historic properties be preserved, but the regulations do require that their historic or prehistoric values be considered in weighing the benefits and costs of implementing federal actions in order to determine what is in the public interest. The goal of the section 106 process is to make sure that historic preservation is fully considered in all federal actions, and the practical effect of the regulations is to encourage agencies to seek ways to avoid or minimize harm to historic properties.

The section 106 process provides a forum for consultation and discussion among the agency, state historic preservation officer (SHPO), tribal historic preservation officer (THPO), federally recognized tribes, Native Hawaiians, Alaska Natives, other government agencies, the public, and other interested parties. The process for review and consultation should not be seen as a method for seeking approval for a planning direction, but rather as a mechanism for helping formulate one. Because the section 106 process is intended to facilitate decision making, the National Park Service must consult with knowledgeable and concerned parties outside the agency about its proposed actions, and it must recognize historic properties important to local communities as well as to the nation as a whole.

The November 2008 Nationwide Programmatic Agreement among the National Park Service, Advisory Council on Historic Preservation, and National Conference of State Historic Preservation Officers outlines a streamlined process for NPS compliance with section 106 and 36 CFR 800; identifies roles for NPS staff; describes a process for consulting with SHPOs, THPOs, and other federally recognized tribes, Native Hawaiian organizations, Alaska Natives, other government agencies, the public, and other individuals and organizations; and related activities. Planning teams should consult the 2008 programmatic agreement to ensure its applicable provisions are met during the GMP effort.

Under NEPA federal agencies have broad responsibilities to identify the potential impacts of their proposed actions on the human environment, which includes historic properties. Coordinating compliance with section 106 of the National Historic Preservation Act (NHPA) and NEPA (and their implementing regulations, 36 CFR 800 and 40 CFR 1500, respectively) requires the blending of separate, but complementary, processes. This blending of processes merits careful consideration, so that the assessment of effects complies with both legislative and regulatory mandates.

Section 106 review and NEPA are two separate, distinct processes. However, they can and should occur simultaneously and be coordinated to avoid duplication of public involvement and other requirements. Complying with one does not automatically mean the other has been complied with. Requirements for coordinating the section 106 review with the NEPA process are outlined in 36 CFR 800.8.

General management planning teams should determine their obligations under section 106 as early as possible in the general management planning process. The team should plan appropriately for agency and public involvement, identify historic properties and their significance, and analyze potential impacts to historic properties in such a way that the purposes and requirements of both statutes can be fulfilled in a timely and efficient manner.

If during either the analysis of potential impacts to historic properties or consultations with the SHPO or THPO and associated Indian tribes, the potential impacts to historic properties are identified as adverse, the planning team should identify measures in the GMP to avoid, minimize, or mitigate such impacts. A binding commitment to such mitigation must be incorporated in the ROD or FONSI, and a memorandum of agreement or programmatic agreement for purposes of section 106. Because the ROD or FONSI cannot be signed without knowledge of potential impacts to cultural resources and the identification of appropriate mitigation measures, consultations with the SHPO or THPO and the ACHP regarding the GMP must be complete prior to its signing.

Suggested Tools and Methodology for Integrating NHPA Section 106 Requirements with NEPA

Following the steps outlined below is an effective way to integrate NHPA section 106 requirements with NEPA, and to ensure that the planning team fully meets NPS obligations under both section 106 and NEPA.

Suggested Tools	Methodology
<input checked="" type="checkbox"/> At the outset of the GMP process, request from the SHPO or THPO known information on historic properties in the park, and solicit any preservation concerns from the SHPO, THPO, and ACHP.	Consultation should be undertaken as early as possible in the planning stages of every GMP. The GMP process should also include, at a minimum, opportunities for the SHPO or THPO to provide information and raise concerns during the issues analysis phase and during the development of preliminary alternatives. Site visits may also be helpful.

10.3. The Environmental Consequences

Suggested Tools	Methodology
<input checked="" type="checkbox"/> Consult with Indian tribes, local governments, and the interested public.	<p>The planning team should be especially mindful of consulting with traditionally associated peoples (those whose cultural systems or ways of life are associated with park resources and values, and they predate park establishment). Traditionally associated peoples may include park neighbors, traditional residents, and former residents who remain attached to the park area despite having relocated. Examples of traditionally associated peoples include American Indians in the contiguous 48 states, Alaska Natives, African Americans at Jean Lafitte, Asian Americans at Manzanar NHS, and Hispanic Americans at Tumacacori NHP.</p> <p>Consultation is an exchange of ideas, not simply an exchange of information. It is the process of seeking, discussing, and considering the views of others and, where feasible, seeking agreement with them on how historic properties should be identified, considered, and managed. Thus, it should be initiated early in the planning process. Also, consultation should encompass the broader effort to maintain ongoing communication with all public and private entities who are interested in or affected by the park's historic preservation activities.</p>
<input checked="" type="checkbox"/> Ensure that the most current information is available to inform decision making.	<p>The identification and understanding of historic properties is an ongoing process. As time passes, events occur or scholarly and public thinking about historical significance changes. Thus, even if a park was completely surveyed for historic properties of all types in the past, the prehistoric or historic values of those properties may require reconsideration if many years have passed since the survey was completed. It may be necessary to re-evaluate historic properties based upon new or changed information.</p>
<input checked="" type="checkbox"/> Determine in consultation with the SHPO or THPO if there is enough information available to complete section 106 consultation during the GMP process or if additional consultation will be required.	<p>Generally, a timely point to confer with the SHPO or THPO about individual actions in a GMP is during the development of preliminary alternatives. The proposed actions can then be categorized according to whether there is sufficient information to complete the section 106 process or whether further consultation after approval of the GMP will be required due to insufficient information. If the planning team has adequately identified and evaluated historic properties, and sufficient information is available to adequately apply the criteria of effect and adverse effect in the ACHP regulations (36 CFR 800.5), consultation on a given action can be completed during general management planning; the final GMP then includes documentation of this consultation.</p> <p>Due to the increasingly conceptual nature of GMPs, specificity regarding the identification and treatment of historic properties, as well as the potential impacts to such properties, may be lacking; the GMP team may be unable to complete section 106 consultations for many,</p>

10. THE GMP/NEPA DOCUMENT: AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, CONSULTATION AND COORDINATION

Suggested Tools	Methodology
	<p>if not most, of the actions described in the plan. Therefore, the final GMP should also include a list of the proposed actions on which further consultation is necessary, and the stage of future planning where further consultation is likely to occur. Because different SHPOs and THPOs prefer to see such information provided in different formats, the planning team should check with the appropriate SHPO or THPO before spending a lot of time on detailed charts and analyses.</p> <p>If major changes occur after release of the draft GMP/EIS, such as the development of a new preferred alternative, the planning team must confer with the SHPO or THPO and ACHP about those changes before preparing the final EIS.</p>
<input checked="" type="checkbox"/> Include a statement in the affected environment on the status of the park's cultural resource inventory and needs for additional cultural resource information, plans, or studies required before any action can be implemented.	<p>Incomplete or unavailable information should be discussed in accordance with the guidance provided under section "10.3.2. Scientific Data and Other Information."</p>

Special Planning Considerations for Potential Adverse Effects to National Historic Landmarks

A national historic landmark (NHL) is a place where significant historical events occurred, where prominent Americans worked or lived, that represent those ideas that shaped the nation, that provide important information about our past, or that are outstanding examples of design or construction. Such a landmark is designated by the secretary of the interior for its exceptional value or quality in illustrating or interpreting the heritage of the United States.

The NHPA (sec. 110(f)), the ACHP regulations (36 CFR 800.10), and the NPS *Management Policies 2006* require that special consideration be given to NHLs during planning and that steps be taken to minimize any harm to NHLs to the maximum extent possible. More specifically, the NPS *Management Policies 2006* (sec. 5.2) state that when proposed undertakings may adversely affect national historic sites, national battlefields, and other predominantly cultural units of the national park system that were established in recognition of their national historical significance, superintendents will provide opportunities for the same level of review and consideration by the ACHP and the secretary of the interior that the ACHP regulations require for undertakings that may adversely affect national historic landmarks (36 CFR 800.10). For a park that is a national historic site or national battlefield, or that was established primarily for its national historical significance, or that contains a NHL, the planning team should make every attempt to minimize harm to the relevant cultural resources by consulting broadly before developing GMP alternatives. If it appears that any or all of these alternatives may have an adverse effect on such resources, the superintendent must take the following steps:

10.3. The Environmental Consequences

- Notify the relevant regional director of consultation underway related to the NHL, etc.
- Determine if the proposed alternative constitutes impairment in accordance with the NPS Organic Act and the provisions of NPS *Management Policies* (see www.nps.gov/protect).
- Forward the proposed alternative and impairment determination to the regional director for review and comment, prior to initiating consultation under 36 CFR 800 with the applicable SHPO/THPO and the ACHP.
- Together with the regional director, identify and select, where feasible, alternatives to avoid or minimize potential adverse effects or eliminate impairment. The analysis of these alternatives must focus on actions that will minimize harm to the NHL and advance a preservation outcome, to the maximum extent possible.

When the superintendent and the regional director agree on an alternative that avoids adverse effects and does not constitute impairment, the superintendent will proceed to consult with the SHPO/THPO in accordance with 36 CFR 800 and section V of the November 2008 Nationwide Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.”

If the SHPO and/or THPO does not concur with the NPS finding of *no adverse effect*, the superintendent shall notify the regional director; the NPS federal preservation officer (FPO), who is the associate director for cultural resources WASO; and the ACHP in accordance with 36 CFR 800.10(b).

If the superintendent and the regional director cannot identify an alternative that would avoid an adverse effect and/or impairment, they shall notify the FPO and continue to consult to identify alternatives to avoid or minimize potential adverse effects or eliminate impairment. If no alternative can be identified to eliminate the determination of impairment, the alternative shall not proceed; the FPO shall notify the director of this outcome.

If an alternative is identified that eliminates the determination of impairment, the FPO shall notify the director of the intent to proceed with consultation with the applicable SHPO/THPO and the ACHP on the finding of an effect or an adverse effect. Unless the director objects, the superintendent will proceed with consultation in accordance with 36 CFR 800. If the SHPO/THPO or the ACHP disagrees with the proposed mitigation, the superintendent will consult with the regional director, FPO, and director on an appropriate response. If consultation results in development of a memorandum of agreement, the superintendent will submit the document to the regional director, the FPO, and the director for review and comment. Execution for the National Park Service of the final memorandum of agreement shall be by the director. The superintendent must provide copies of all project communications to the regional director and the FPO.

Adverse Impacts to Historic Properties and Potential Impairment of Park Resources and Values

The ACHP regulations (36 CFR 800.5(a)(1)) define an adverse impact to a historic property as one that may

alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the national register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the national register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

Not every adverse impact results in impairment, only those adverse impacts that meet one of the criteria for impairment (see the discussion of impairment in section 10.3.1).

Reference: *The DO- 12 Handbook* (sec. 2.7.D and 4.5.E.9).

10.4 FORMATTING THE ENVIRONMENTAL CONSEQUENCES CHAPTER

There are a number of ways to format the environmental consequences chapter of a GMP/EIS. One of the most effective ways, in keeping with the CEQ regulations, is to organize the impacts by alternative then by topic. Another common way is to organize the information first by impact topic, then by alternative. This approach is more useful when there are relatively few differences in impacts among the alternatives, eliminating unnecessary duplication of text. Both approaches are shown in Table 10.7

TABLE 10.7: TEMPLATES FOR THE ENVIRONMENTAL CONSEQUENCES CHAPTER

Impacts by Alternative	Impacts by Topic
Methodology for Analyzing Impacts and Impact Thresholds	Impact Topic 1
Impact Topic 1	Methodology for Analyzing Impacts
Methodology for Analyzing Impacts	Impact Thresholds
Impact Thresholds	Alternative A
Impact Topic 2	Analysis of Direct and Indirect Impacts
Same as above	Analysis of Cumulative Impacts
Alternative A	Conclusion and Impairment Finding
Impact Topic 1	Alternative B
Analysis of Direct and Indirect Impacts	Analysis of Direct and Indirect Impacts
Analysis of Cumulative Impacts	Analysis of Cumulative Impacts
Conclusion and Impairment Finding	Conclusion and Impairment Finding
Impact Topic 2	Impact Topic 2
Analysis of Direct and Indirect Impacts	Same as above
Analysis of Cumulative Impacts	Relationship between Local Short-Term Uses and Long-Term Productivity
Conclusion and Impairment Finding	Alternative A
Relationship between Local Short-Term Uses and Long-Term Productivity	Alternative B
Irreversible or Irretrievable Commitments of Resources	Irreversible or Irretrievable Commitments of Resources
Adverse Impacts that Cannot Be Avoided	Alternative A
	Alternative B

10.5. Consultation and Coordination

Alternative B Same as above Alternative C Same as above	Adverse Impacts that Cannot Be Avoided Alternative A Alternative B
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Further Sources of Information:

CEQ, “Regulations for Implementing the National Environmental Policy Act” (40 CFR 1500- 1508), “The 40 Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations,” and *Considering Cumulative Effects under the National Environmental Policy Act* (1997)

National Park Service, *The DO- 12 Handbook* (2001b)

Shipley Associates, *How to Write Quality EISs and EAs* (1992)

10.5 CONSULTATION AND COORDINATION

The last chapter in a GMP/NEPA document typically addresses consultation and coordination that has occurred throughout the planning process. This chapter provides a brief history of public involvement, including public meetings and newsletters, as well as public notifications such as press releases. (However, the chapter does not discuss the planning issues in detail, which are presented in the purpose of and need for action in chapter 1.) A section should also document consultations with other agencies, officials, and organizations. In particular, consultations should be documented with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding section 7 of the Endangered Species Act, the state historical preservation office over section 106 of the NHPA, the state coastal zone management office regarding section 307 of the Coastal Zone Management Act, and Native Americans .

10.5.1 List of Reviewing Agencies and Recipients

This chapter also includes a list of the recipients of the document. This list should include all public officials, agencies, organizations, and individuals (if fewer than three pages) receiving a copy of the plan. A typical way to list these recipients by categories:

- congressional delegation
- federal agencies
- Native American tribes and agencies
- state elected officials
- state agencies
- local and regional governmental agencies
- organizations and businesses
- libraries

- media
- individuals (depending on the number of individuals)

10.5.2 Comments on a Draft GMP/EIS

If a final GMP/EIS is being prepared, a new section should summarize what happened during the public review of the draft EIS, documenting the record of public comments and public, agency, and organizational meetings. A summary of written and oral comments should be provided. It also may be desirable to include a section that discusses the major changes that were made to the draft GMP/EIS. Another optional section is to provide clarifications of commonly raised public concerns on the draft document if the public comments reflected inaccurate information, misperceptions, or confusion.

This chapter must include copies of all governmental agency letters, substantive comments from others that were received on the draft GMP/EIS, and responses to those comments. It is important to review oral comments, as well as written comments, in determining which comments require an agency response. Chapter 12 addresses the ways to respond to substantive and nonsubstantive comments.

Reference: *The DO- 12 Handbook* (sec. 4.5.H and 4.6.A and B)

10.5.3 Future Compliance Requirements Following GMP Implementation

A GMP may propose actions that require additional compliance before the actions can occur. Although some of these actions may have been generally assessed in the environmental consequences, many details probably have not been identified (e.g., precise location, design, and size of a facility), which requires additional analysis. State and/or federal permits and additional consultations may also be required before a new facility can be built or an action implemented. If there are important additional compliance measures that need to be taken after a GMP is implemented, and/or there are a large number of compliance actions that are needed, it is worth noting this in a section in the “Consultation and Coordination” chapter.

Among the topics that may need additional compliance are

- development of facilities, preparation of a future wilderness study, or specific resource management such as eradication of a nonnative species or restoration of a wetland (NEPA requirements)
- actions or facilities that may affect a federally listed threatened and endangered species (sec. 7 of the Endangered Species Act)
- actions or facilities that may affect essential fish habitat (Magnuson- Stevens Act)
- actions or facilities that may affect water resources such as wetlands, or discharge, dredging or placement of fill materials into waters of the United States (sec. 404 permit from the U.S. Army Corps of Engineers, a sec. 401 water quality certification)

- an undertaking that could potentially affect cultural resources either listed on or eligible for listing on the National Register of Historic Places (sec. 106 of the NHPA)
- a proposal that involves federal rulemaking (per the Administrative Procedures Act and NEPA)
- actions that affect concessions (concession contracting)
- commercial services (commercial use authorization required under sec. 418 of the National Park Service Concessions Management Improvement Act of 1998)

Additional permits also may need to be granted by the park unit before certain actions can occur.

10.6 GMP/NEPA DOCUMENT APPENDIXES AND REFERENCES

As noted in *The DO- 12 Handbook* (sec. 4.5.I), appendixes in a GMP/NEPA document should include important supporting materials. They are not intended to be a data bank or library of all materials relating to the park. “They should contain only major substantiating data, essential relevant descriptions of environmental components, important professional reports, and copies of major legislative and executive documents, agency agreements, or other information necessary for a complete use of . . . [the GMP/NEPA document] for analytical/decision- making purposes.”

Two appendixes usually included in GMP/NEPA documents are

- the park’s enabling legislation or establishing executive order
- consultation letters with other agencies (e.g., U.S. Fish and Wildlife Service, the state historic preservation office)

Other appendixes that may be included are:

- key agency memoranda of agreement/understanding
- list of classified structures
- floodplains or wetlands statements of findings
- analysis of proposed boundary adjustments
- scientific names of plants and animals discussed in the plan
- description of how the GMP was developed
- development of the preferred alternative
- cost estimates for the GMP alternatives
- wilderness study and recommendation
- wild and scenic river evaluation
- analysis of user capacity/selection of indicators and standards

- state and federally listed plant and wildlife species in the park
- summary of legislative history; list of pertinent laws and executive orders
- NPS policies and mandates relating to the park
- biological assessment
- local zoning ordinances
- summary of transportation studies

A GMP/NEPA document also includes a section on references. A bibliography and an index of key words are required elements for an EIS under CEQ regulations. *The DO- 12 Handbook* (sec. 4.5.I) also states that a glossary should be included — although this is considered an optional section (as is a list of acronyms). *The DO- 12 Handbook* (sec. 5.4.H) also states that a bibliography, glossary of terms, and acronyms should be included in an EA.

The bibliography (also called references or references cited) should include complete citations for all the sources cited in the document, including Internet sources and personal communications. It may also include selected references that are not directly cited but that are important references for the plan/NEPA document. References may be organized either in alphabetical order by author, or grouped by topic. For details on the format for citations, see the 2005 DSC *Editing Reference Manual* (NPS 2005c).

A list of preparers is a required section in an EIS and is recommended in an EA. Under CEQ regulations (40 CFR 1502.17) and *The DO- 12 Handbook* (sec. 4.5.H.2), an EIS must list the persons primarily responsible for preparing the document and their qualifications (the planning team). This list should include both park staff and others who participated in the development of the plan (e.g., DSC planners, consultants). The section should list for the primary authors, the sections they were responsible for, and their expertise, experience, and professional disciplines. Typically for GMP/EISs the list of primary authors includes their professional title, how many years a person has worked for the National Park Service and/or other federal agencies, their degrees, and primary responsibilities in the planning effort. Individuals who have subsequently retired or left their positions should also be noted.

Here is an example of what typically would be included for a park planning team member:

Jane Smith, Cultural Resource Specialist. B.A., M.A. (Historic Preservation); 15 years with the National Park Service; responsible for review of cultural resource-related sections, including description of cultural resources, and assessing impacts on those resources.

The list of preparers can also list other important contributors, such as park, regional, and WASO staff, advisory council members, and publication services staff (e.g., editors, graphic specialists). However, it is not necessary to identify the qualifications for these individuals.

11. IDENTIFICATION OF THE PREFERRED ALTERNATIVE AND THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

11.1 THE PREFERRED ALTERNATIVE

The preferred alternative is the alternative that the National Park Service believes would best fulfill its statutory mission and responsibilities, based on the planning team's NEPA analysis and a separate value analysis, which considers the expected results compared to the estimated one-time costs of the alternatives.

Prior to selecting the draft preferred alternative, the multidisciplinary team members—including the park superintendent and a regional representative—review the analysis results, public comments, projected cost estimates, and management policies to ensure that the alternatives accurately reflect information prepared during the planning effort. Once they are satisfied that the range of draft alternatives is adequate, a value analysis process is used to compare the alternatives equally against the NPS mission and the primary issues identified during the scoping phase of planning. The questions to be answered are

- What and how large are the advantages of the differences between alternatives proposed for consideration?
- How important are the advantages of the differences between alternatives?
- Are those advantages worth their associated cost?

Examine each question in terms of what is ethically and aesthetically right, as well as what is economically expedient.

— Aldo Leopold

The draft preferred alternative may be one of the alternatives initially considered, a combination of elements from several alternatives, or an entirely new alternative.

Draft alternatives, including the recommended preferred alternative, are presented to the regional director by the park superintendent and the multidisciplinary team. Final approval of the alternatives, including selection of the NPS preferred alternative, is the responsibility of the regional director. In selecting the National Park Service's preferred alternative, the regional director may identify an alternative other than the one shown by the value analysis process to have the greatest value. Value analysis is only a tool to aid in decision making; other decision factors may influence the regional director's final selection. The rationale for why the alternative is preferred is included in the administrative record and eventually in the ROD for a GMP/EIS or in the FONSI for a GMP/EA. The process used and the rationale for selecting the preferred alternative can be included in the description of the GMP preferred alternative, in the introduction to the alternatives chapter, or in an appendix. The rationale needs to be clear to the public, future park managers, and decision makers as to why the alternative was selected.

If the preferred alternative is known by the time that a draft GMP/EIS is released for review, it should be identified in the text or in a cover letter. Identification of the

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preferred alternative helps the public focus its comments during review of the draft. If the preferred alternative is not identified, it could be construed that any or all alternatives would provide equal benefit in fulfilling the statutory mission and responsibilities of the National Park Service. The final GMP/EIS or a GMP/EA must identify the preferred alternative in the text.

It is important to remember that all alternatives in an EIS must be treated with the same level of detail in the analysis of impacts. The degree of analysis devoted to each alternative in the EIS is to be substantially similar to that devoted to the preferred alternative so that reviewers can effectively evaluate and compare alternatives. In addition, the EIS must be objective and not slanted to support the choice of the preferred alternative over the other reasonable and feasible alternatives.

The concept of the preferred alternative is different from the environmentally preferred alternative (see below).

11.1.1 The Process for Selecting a Preferred Alternative

The National Park Service plans for one purpose — to ensure that the decisions it makes will carry out its mission as effectively and efficiently as possible. The NPS mission is twofold, as defined in its Organic Act:

to promote and regulate the use of the . . . national parks . . . which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

—The National Park Service Organic Act (16 USC 1)

The character of this mission for the National Park Service is grounded in achievements related to nonmonetary benefits. For example, what is the value of sitting in solitude and contemplating a sunset over the rim of the Grand Canyon, the value of hiking through the Narrows in Zion Canyon, or the value of viewing the Liberty Bell and contemplating the origins of our country? How do you measure such advantages; how do you put value on them in terms of dollars? How are value methods used in this process?

In 1996 the National Park Service began using the Choosing by Advantages (CBA) method to bring “benefit- to- cost” decision making to bear on the NPS construction priority setting process. This was in response to Congress emphatically telling the National Park Service to develop a more “overtly objective” priority setting system that weighed both benefits and costs.

Experience has shown that CBA provides sound methods for making decisions and more clearly documents rationale and benefit- to- cost trade- offs than the traditional weighted factor decisions. Today CBA is consistently used as an evaluation method for NPS decision makers, particularly when confronted with decisions that must be evaluated relative to nonmonetary benefits between alternatives. The CBA evaluation gives the multidisciplinary team shared knowledge about what attributes of the alternatives the agency and stakeholders value. Using this knowledge makes it possi-

11.1. The Preferred Alternative

ble to craft and create a preferred alternative that in many cases provides more advantages to the National Park Service for a lesser investment.

While CBA has been the primary decision- making methodology used by the National Park Service, other decision making methodologies may be used as long as the relationship between results and costs is used to identify the alternative with the greatest value and to inform the decision. For each alternative, the question should be asked, “Is the difference in the results of this alternative compared to the other alternatives worth the difference in the cost?” Other elements include the following:

- considering all viable alternatives
- fully considering the factors used to evaluate the alternatives and ensuring that they are sound and related to the issues identified during scoping
- testing all alternatives equally against these factors
- ensuring that solutions are cost- effective
- benefit- to- cost relationships
- considering public comments and perspectives

Regardless of the decision- making process employed, it is important that the regional director’s selection of a preferred alternative be based on an analysis that compares the relative advantages of all the alternatives and determines whether the anticipated advantages justify the estimated costs, among other things. It is also vital to document the rationale as to why the preferred alternative was selected.

11.1.2 Choosing by Advantages

CBA focuses on the differences between alternatives. Elements that are the same for each alternative will make no difference in the selection of the preferred alternative and are therefore not considered. This process allows the multidisciplinary team to focus discussion on the areas where there are truly differences among alternatives for park management.

CBA does not “weight” factors in advance, so that some factors are automatically more important than others. This eliminates the ungrounded debate on whether resources or visitors are more important. Rather, CBA focuses on the differences between alternatives and determines how important those advantages are. The process establishes a single scale that compares the importance or benefits of each alternative. The results reflect total benefits of the alternatives to the National Park Service with regard to achieving the agency’s mission. Cost is then introduced to the evaluation process, establishing an importance- to- cost ratio. This allows a planning team to identify which alternative or components of alternatives provide the greatest benefit for each dollar spent.

CBA is a decision- making system based on the following principle: Any difference between two alternatives can be viewed as an advantage for one alternative or as a disadvantage for the other alternative. Theoretically, if a difference is an advantage for one alternative and a disadvantage for the other alternative, we would be double counting that difference. To simplify and clarify the decision- making process, CBA

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lists each difference just once — as an advantage. Decisions are then based on determining the advantages of different alternatives for a variety of factors. The advantages, not the factors, are then weighed and summarized to help identify the preferred alternative. One of the greatest strengths of the CBA system is its fundamental philosophy: Decisions must be anchored in relevant facts. For example, the question, “Is it more important to protect natural resources or cultural resources?” is “unanchored” — it has no relevant facts on which to make a decision. Without such facts, it is impossible to make a defensible decision. The CBA process instead asks, “Which alternative gives the greatest advantage in protecting natural resources and processes?” and “Which alternative gives the greatest advantage in protecting cultural resources?” Then the advantages for each of these questions are compared. A multidisciplinary team may find that the differences in advantages for natural resource protection are relatively minor, while the differences between alternatives for cultural resources are substantial. This exercise greatly simplifies decision making by focusing on facts rather than values. By using a value analysis process such as CBA, the planning team can establish a logical, trackable linkage between the factors used to identify the preferred alternative and the major tradeoffs among the alternatives.

CBA uses a set of terms and definitions based on dictionary definitions. It is important to understand these terms and use them correctly and consistently when using this process. An example, “A group is going camping and will make a decision about which campsite to choose using CBA,” is presented here to explain these terms and their use in CBA. Table 11.1 gives the CBA definition on the left and an example of choosing a campsite on the right to illustrate the terms.

TABLE 11.1: AN EXAMPLE OF HOW THE CBA PROCESS IS USED

Topic considered: A group will use CBA to decide which campsite to select.

CBA Definition	Example: Selecting a Campsite
FACTOR: An element, or a component, of a decision that describes differences between the alternatives. Factors are never weighted.	Factors: <ul style="list-style-type: none"> · water · tent spot · table · privacy It is not appropriate to decide that one of these factors is more important than the other. You need more facts about the conditions at the sites, and you need to consider the importance of the differences (advantages).
ATTRIBUTE: A characteristic, quality, or consequence of ONE factor in ONE alternative.	Attribute for the factor of water Site 8 is 60 feet away Site 19 is 260 feet away Site 23 is 150 feet away The attribute describes the situation regarding the factor water for each alternative (no values applied yet).
ADVANTAGE: A favorable difference between the attributes of TWO alternatives. Without exception, the disadvantage of one alternative is the advantage of another. A good description of an advantage is key to explaining the decision to others.	Advantage of the water factor: Site 8 is 200 feet closer Site 19 has no advantage Site 23 is 110 feet closer The least preferred water attribute is site 19 because it is farthest from water, so it has no advantage. The other alternatives are compared to this site. The closer the site is to water, the greater the advantage.

There are five basic steps in the CBA decision-making process.

1. Summarize the **ATTRIBUTES** of each alternative.
2. Decide the **ADVANTAGES** of each alternative.
3. Decide the **IMPORTANCE** of each advantage.
4. Weigh **COSTS** with **TOTAL IMPORTANCE** of the advantages.
5. **SUMMARIZE** the decision.

The following discussion demonstrates how the CBA analysis will help the camper make a campsite selection.

Step 1. Summarize the ATTRIBUTES of Each Alternative

The attributes in our example are shown in the following table. Note that only a description of the condition is recorded in the attribute cells. No values have been applied. A common mistake in developing the attributes is to compare the attributes rather than to just describe the condition. For example, “Site 8 is much more level than site 23.” Comparisons between the alternatives are a later step.

TABLE 11.2: HOW TO SUMMARIZE THE ATTRIBUTES IN A CBA PROCESS

Factor		Site 8		Site 19		Site 23	
Factor 1 Water							
Attributes		60 feet away		260 feet away		150 feet away	
Advantages							
Factor 2 Tent Spot							
Attributes		Moderately level		Almost level		Quite sloping	
Advantages							
Factor 3 Table							
Attributes		No table		No table		Table	
Advantages							
Factor 4 Privacy							
Attributes		Close sites		Screened		Screened	
Advantages		near road		distant sites		close sites	
Advantages							
Total Importance of Advantages							

Step 2. Decide the ADVANTAGES of Each Alternative

To determine where the advantage lies, it is important that the group share an understanding of what attribute provides an advantage. For example, the group must agree that being closer to water provides more advantage than being farther away because water is heavy, and carrying water the shorter distance provides the greatest advantage. Good descriptions of the advantages are important — they will be used later to summarize the rationale for the decision.

The least preferred attribute is underlined for each factor, and then the advantages of the other alternatives are described relative to the least preferred attribute. There is no advantage for the least preferred attribute, so leave it blank.

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TABLE 11.3: DECIDING THE ADVANTAGES

Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 1 Water			
Attributes	60 feet away	260 feet away	150 feet away
Advantages	200 feet closer		110 feet closer
Factor 2 Tent Spot			
Attributes	Moderately level	Almost level	Quite sloping
Advantages	Moderately more level	Much more level	
Factor 3 Table			
Attributes	No table	No table	Table
Advantages			Table versus no table
Factor 4 Privacy			
Attributes	Close sites, near road	Screened, Distant sites	Screened, Close sites
Advantages		Much more privacy due to screening and remoteness	Moderately more privacy due to screening
Total Importance of Advantages			

Step 3. Decide the IMPORTANCE of Each Advantage

There are four considerations for deciding importance:

1. *The purpose and circumstances of the decision*
2. *The needs and preferences of the users and stakeholders* — Those affected by and interested in the decision.
3. *The magnitudes of the advantages* — Are the differences in the advantages relatively minor or are there clearly substantial differences?
4. *The magnitudes of the associated attributes* — How do the attributes compare?

After you analyze the four considerations for your campsite, circle the most important advantage for each factor.

TABLE 11.4: DECIDING THE IMPORTANCE OF EACH ADVANTAGE

Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 1 Water			
Attributes	60 feet away	260 feet away	150 feet away
Advantages	200 feet closer		110 feet closer
Factor 2 Tent Spot			
Attributes	Moderately level	Almost level	Quite sloping
Advantages	Moderately more level	Much more level	
Factor 3 Table			
Attributes	No table	No table	Table
Advantages			Table versus no table

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Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 4 Privacy			
Attributes	Close sites, near road	Screened, distant sites	Screened, close sites
Advantages		Much more privacy due to screening and remoteness	Moderately more privacy due to screening
Total Importance of Advantages			

Select the paramount advantage — the most important of the important advantages. This is not the most important factor; rather it is the most important advantage (difference) of the alternatives. This will be the benchmark by which the importance of all other advantages is weighed. This decision requires a thoughtful discussion by the multidisciplinary team and consideration of purpose, significance, stakeholders' interests, etc. This is one of the challenging parts of the process, largely because it requires such careful thought, discussion, and documentation.

A useful technique is to use the “defender/challenger” method. Ask the group, “Which advantage is more important in this decision, the advantage in x (select one of the factors — it doesn’t matter which one) or the advantage in y (select another factor — again it doesn’t matter which one since you will be examining all the factors)?” Once one advantage is identified, then ask the group again “Which advantage is more important in this decision, the advantage in x (state the factor that was selected in the first question)” or the advantage in z (select another factor)?” Continue with this process until a paramount advantage is determined. Note that you are comparing the advantage for each factor, not the factors themselves.

Once you have selected the paramount advantage, assign an importance score of 100 to establish a scale of importance for the decision. The score for the paramount advantage is a benchmark for the rest of the process. * This benchmark is the highest score, and the basis of comparison for all other advantages. For the example you would be considering “200 feet closer” versus “much more level” versus “table versus no table” versus “much more privacy due to screening and remoteness.”

TABLE 11.5: DECIDING THE PARAMOUNT ADVANTAGE

Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 1 Water			
Attributes	60 feet away	260 feet away	150 feet away
Advantages	200 feet closer		110 feet closer
Factor 2 Tent Spot			
Attributes	Moderately level	Almost level	Quite sloping
Advantages	Moderately more level	Much more level	

* The number could be 10 or 200. You just need to get enough of a spread to express the differences. Most groups are comfortable with 100.

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Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 3 Table			
Attributes	No table	No table	Table
Advantages			Table versus no table
Factor 4 Privacy			
Attributes	Close sites, Near road	Screened, Distant sites	Screened, Close sites
Advantages		Much more privacy due to screening and remoteness	Moderately more privacy due to screening
Total Importance of Advantages		100	

Decide the IMPORTANCE of each remaining most important advantage. Weigh the importance of each remaining most important advantage, compare directly or indirectly with the paramount advantage. All the advantages must be weighed on the same scale of importance. Continue to score the most important advantage for each factor, relative to the paramount advantage and to each other. These multidisciplinary discussions are at the heart of good decision making. It is important to record the discussions and rationale for assigning importance. This will help you to explain your decision later. For the campsite example, you must consider how important “200 feet closer,” “much more level,” and “table versus no table” are, compared to the paramount advantage of “much more privacy due to screening and remoteness.”

TABLE 11.6: DECIDING THE REMAINING IMPORTANT ADVANTAGES

Factor	Alternatives		
	Site 8	Site 19	Site 23
Factor 1 Water			
Attributes	60 feet away	260 feet away	150 feet away
Advantages	200 feet closer	40	0
Factor 2 Tent Spot			
Attributes	Moderately level	Almost level	Quite sloping
Advantages	Moderately more level	Much more level	70
Factor 3. Table			
Attributes	No table	No table	Table
Advantages			Table versus no table
Factor 4 Privacy			
Attributes	Close sites, near road	Screened, distant sites	Screened, close sites
Advantages		Much more privacy due to screening & remoteness	Moderately more privacy due to screening
Total Importance of Advantages		100	65

In deciding the importance of each remaining advantage, the weight assigned to the most important advantage for a particular factor provides the benchmark for

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weighing the other advantages within that factor, and those advantages must be equal to or less than the most important advantage for that factor. The least important advantage (identified by an underline in these examples), receives a 0, regardless of the benchmark weight for the most important advantage. All other advantages within that factor are then weighted between zero and the weight assigned to the more important advantage. If advantages are identical, they would receive the same weight. In the campsite example note that neither site 8 nor site 19 has a table. Since this is the least preferred attribute for factor 3, both would be weighted at zero.

TABLE 11.7: DECIDING THE OTHER ADVANTAGES

Factor	Alternatives					
	Site 8		Site 19		Site 23	
Factor 1 Water						
Attributes	60 feet away		260 feet away		150 feet away	
Advantages	200 feet closer	40		0	110 feet closer	30
Factor 2 Tent Spot						
Attributes	Moderately level		Almost level		Quite sloping	
Advantages	Moderately more level	30	Much more level	70		0
Factor 3 Table						
Attributes	No table		No table		Table	
Advantages		0		0	Table versus no table	65
Factor 4 Privacy						
Attributes	Close sites, near road		Screened, distant sites		Screened, close sites	
Advantages		0	Much more privacy due to screening & remoteness	100	Moderately more privacy due to screening	45
Total Importance of Advantages						

Once you have assigned importance scores for each of the advantages, it is important to cross check your logic to ensure that you have made consistent decisions. For instance, is an importance score of 30 for site 23 under factor 1 equal to the importance score of 30 for site 6 in factor 2? If you find that these appear inconsistent, you may want to continue group discussions and adjust the importance scores. Once the group is satisfied that the importance scores have been assigned consistently, total the importance scores for each of the sites.

TABLE 11.8: TOTALING THE ADVANTAGES

Factor	Alternatives					
	Site 8		Site 19		Site 23	
Factor 1 Water						
Attributes	60 feet away		260 feet away		150 feet away	
Advantages	200 feet closer	40		0	110 feet closer	30
Factor 2 Tent Spot						
Attributes	Moderately level		Almost level		Quite sloping	
Advantages	Moderately more level	30	Much more level	70		0
Factor 3 Table						
Attributes	No table		No table		Table	

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Factor	Alternatives					
	Site 8		Site 19		Site 23	
Advantage		0		0	Table versus no table	65
Factor 4 Privacy						
Attributes	Close sites, near road		Screened, distant sites		Screened, close sites	
Advantages		0	Much more privacy due to screening and remoteness	100	Moderately more privacy due to screening	45
Total Importance of Advantages		70		170		140

If all costs are equal, you would choose the alternative with the greatest total importance of advantages. In the example, if the campsite fees were the same regardless of the site, our campers would select site 19 because it has the greatest advantages.

Step 4. Weigh COSTS with TOTAL IMPORTANCE of Advantages

If costs are not equal, then the multidisciplinary team must determine if the total importance of advantages increase significantly with higher cost alternative. This is an evaluation of value on whether the additional benefits justify the cost.

For the campsite example, assume that the campground operators knew that some sites were more desirable than others and that they could charge more based on site desirability. Would our camper still make the same decision?

TABLE 11.9: WEIGHING COSTS WITH TOTAL IMPORTANCE OF ADVANTAGES

Factor	Alternatives					
	Site 8		Site 19		Site 23	
Factor 1 Water						
Attributes	60 feet away		260 feet away		150 feet away	
Advantages	200 feet closer	40		0	110 feet closer	30
Factor 2 Tent Spot						
Attributes	Moderately level		Almost level		Quite sloping	
Advantages	Moderately more level	30	Much more level	70		0
Factor 3 Table						
Attributes	No table		No table		With	
Advantages		0		0	Table versus no table	65
Factor 4- Privacy						
Attributes	Close sites, Near road		Screened, Distant sites		Screened, Close sites	
Advantages		0	Much more privacy due to screening and remoteness	100	Moderately more privacy due to screening	45
Total Importance of Advantages		70		170		140
Total Cost per Night		\$3		\$20		\$4

In the example, site 8 received the lowest importance score of 70 but it is also the lowest cost. Site 19 received the highest importance score of 170, but is the

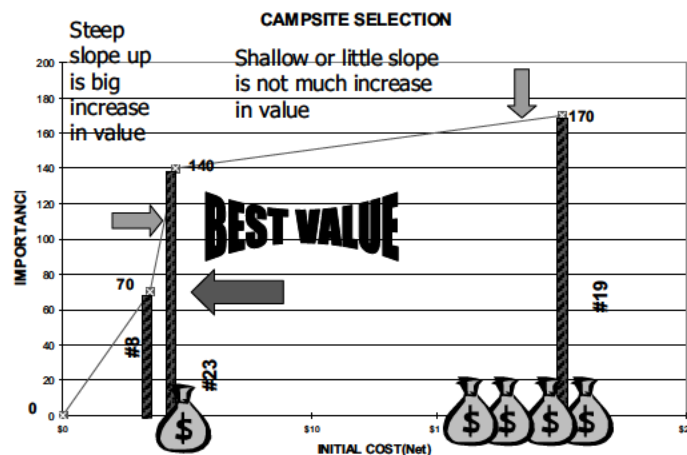
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importance of advantages worth six times the cost of site 8? Site 23 received an importance score of 140 and has a quite low cost, but still has many advantages.

Importance-to-Cost Graph

Graphing the importance- to- cost data provides a visual way to assist in decision making. A steep slope upward indicates that there is a great increase in the total importance of advantages for not much more money, and hence may be a good value. A shallow slope, no slope, or a decreasing slope indicates that although a lot more money is being spent, there is not a corresponding increase in the importance of advantages, and therefore it is not a good value.

FIGURE 11.1: IMPORTANCE-TO-COST GRAPH



CBA does not make the decision; it merely informs the decision. In the example of the campers, they may still choose the campsite with the greatest advantage if they do not mind spending five times as much (\$20) as the next best site (\$4). If the campers are on a limited budget, perhaps they would choose site 23 that provides a considerable amount of advantage at substantially less cost than site 19.

While CBA results can inform the selection of a preferred alternative, common sense has to prevail. At this step you should step back and reconsider the decision. Does this decision make sense? Are there additional alternatives? Does this decision represent the viewpoints of stakeholders? Were there mistakes made in the process? Are there adjustments that need to be made to factors, advantages, importance scores, etc.?

This is also an opportunity to improve the preferred alternative. It may be possible to bring in some of the best advantages of alternatives not selected. Be careful if cost is important; you must determine if adding the advantages from other alternatives is worth any increase in cost.

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Step 5. SUMMARIZE the decision

Use the advantage statements and notes from the discussion to help summarize why you selected the alternative. Develop key statements and a summary so any member of the team can succinctly explain the decision. For the “selecting a campsite” example you might record:

Campsite 23 was selected because it has the following advantages:

- moderately more private
- 110 feet closer to water
- has a picnic table (other sites do not)
- greatest value — strong advantages at a reasonable cost

Although the site is quite sloping, the advantages listed above are more important.

If cost was NOT important in this decision, the preferred alternative would have been site 19 because it had the greatest total advantage of importance — it was much more level and has much more privacy, and you are willing to pay an extra \$16 for those advantages even though it is the farthest from water and does not have a picnic table.

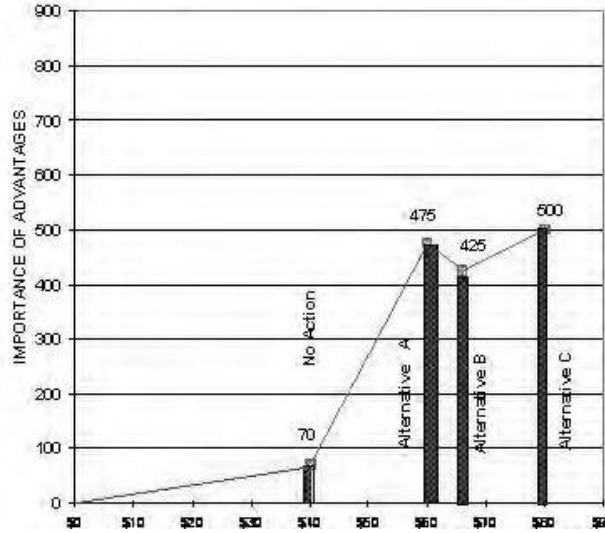
11.1.3 Suggested Tools and Methodology for Using the CBA Process

Suggested Tools	Methodology
<input checked="" type="checkbox"/> When to use CBA.	Any decision process can be de-railed by those who willfully want to get their own way. If you can clearly articulate why your preferred alternative is the best and can defend that to the public, you may not want to invest the time necessary to complete a CBA process. If you need a decision anchored in the relevant facts and want a defensible decision, invest in the CBA process and contribute your expertise and values to the collaborative effort of the team.
<input checked="" type="checkbox"/> Commitment to a common goal.	Healthy debate is at the core of this process, but to move through it there must be some compromises. A willingness to work toward consensus is key to a successful outcome.
<input checked="" type="checkbox"/> Develop adequate information.	Prior to conducting a CBA process, the planning team should have a general knowledge of the anticipated results (particularly in terms of fundamental resources and values), the environmental impacts, and one-time costs of each alternative. This information will be developed as part of the desired conditions (see Chapter 7), the assessment of impacts (see Chapter 10), and the cost estimates (see Chapter 9).

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Suggested Tools	Methodology
<input checked="" type="checkbox"/> Convene the full interdisciplinary planning team with a facilitator skilled in CBA to conduct the process.	<p>Although CBA is a fairly straightforward process, it is recommended that a facilitator with prior CBA experience be enlisted to guide the planning team through the process. This ensures the process is correctly applied so that the resulting decisions are defensible. A CBA facilitator who has not been part of the planning process also would likely be neutral and could avoid any bias that might have developed during planning.</p>
<input checked="" type="checkbox"/> Identify important factors.	<p>A factor is an element or a component of a decision — it is a difference between the alternatives. Examples of factors could be how each alternative</p> <ul style="list-style-type: none"> · preserves or enhances fundamental resources or values · maximizes diversity of visitor experiences · prevents loss of resources · maintains or improves the condition of resources · provides visitor services and educational and recreational opportunities · protects public health, safety, and welfare · Improves environmental sustainability and reduces the park's contribution to climate change · improves park operational efficiency and effectiveness · protects employee health, safety, and welfare · provides other advantages to the national park system
<input checked="" type="checkbox"/> Describe the attributes of the alternatives.	<p>An attribute is a characteristic or consequence of one factor in one alternative. Table 11.10 illustrates two factors and a sample portion of the attributes to provide an idea of the process. A common mistake is to describe the advantage using comparative terms rather than describe the characteristic. For example, do not say "more options to access the cliffs and beaches"; rather say "provides two points of access to the cliffs and beaches."</p>
<input checked="" type="checkbox"/> Decide which alternative provides the greatest amount of importance for each factor.	<p>There are four considerations to be used when deciding importance:</p> <ul style="list-style-type: none"> · <i>The purpose and circumstances of the decision</i> — For general management plans this relates to how the advantage helps support park purpose and maintains its significance and fundamental resources. · <i>The needs and preferences of the users and stakeholders</i> — This relates to those affected by and interested in the decision. This is where the public involvement and civic engagement information is represented in the preferred alternative decision making. · <i>The magnitudes of the advantages</i> — Are the differences in the advantages relatively minor or are

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Suggested Tools	Methodology															
	<p>there clearly substantial differences between the advantages of the alternatives?</p> <ul style="list-style-type: none">• <i>The magnitudes of the associated attributes</i> — How do the attributes compare? Are your proposed actions potentially affecting a couple of elk from a vast herd or are your proposed actions potentially affecting one of the only three known grizzly bears in the park? <p>A sample template for this exercise is included in Appendix J.1, and an example of a completed template for a GMP is included in Appendix J.2.</p>															
<input checked="" type="checkbox"/> Graph the total score representing the importance of advantages with the total one-time costs to illustrate the relative value of each alternative.	<p>Example: Value Analysis</p>  <table><caption>Data for Example: Value Analysis</caption><thead><tr><th>Alternative</th><th>Total One Time Costs (Millions)</th><th>Importance of Advantages</th></tr></thead><tbody><tr><td>No Action</td><td>540</td><td>70</td></tr><tr><td>Alternative A</td><td>560</td><td>475</td></tr><tr><td>Alternative B</td><td>570</td><td>425</td></tr><tr><td>Alternative C</td><td>580</td><td>500</td></tr></tbody></table>	Alternative	Total One Time Costs (Millions)	Importance of Advantages	No Action	540	70	Alternative A	560	475	Alternative B	570	425	Alternative C	580	500
Alternative	Total One Time Costs (Millions)	Importance of Advantages														
No Action	540	70														
Alternative A	560	475														
Alternative B	570	425														
Alternative C	580	500														
<input checked="" type="checkbox"/> Check the work to ensure that it has identified the alternative that offers the best value.	<p>A step in the CBA process, called reconsideration, specifically addresses this point.</p>															
<input checked="" type="checkbox"/> Document the process.	<p>The details of the CBA process, including the factors used to identify the preferred alternative, should be documented in the administrative record. If needed, the specifics of the CBA process can be included in an appendix to the GMP/EIS or GMP/EA.</p>															

Reference: For additional guidance for using the CBA method see:

<http://construction.den.nps.gov/va5.cfm>

TABLE 11.10: EXAMPLES OF ATTRIBUTES USED IN THE CBA PROCESS

Factor 1: Provides convenient access to significant park features		
Alternative 1	Alternative 2	Alternative 3
<i>Attribute:</i> Cliffs and beaches approachable by motorboat and kayak from Lake Tranquil.	<i>Attribute:</i> Cliffs and some beaches from Lake Tranquil approachable by motorboat and kayak , but most of Solitude Beach not approachable by motorboat .	<i>Attribute:</i> Cliffs and most beaches approachable from Lake Tranquil by kayak only .
<i>Advantage:</i> Very good unrestricted access for motorboats and kayaks.	<i>Advantage:</i> Very good unrestricted access for kayaks, good access for motorboats from Lake Tranquil except for no motorboat access Solitude Beach.	<i>Advantage:</i> No advantage statement would be listed. (Identified as the least preferred attribute since the factor describes "convenient access to significant park features" and one user group is excluded. The difference in the visitor experience (kayakers experience cliffs and beaches without noise and wakes from motorboats) would be evaluated under another factor. This factor examines access only.)
Factor 2: Protects natural resources and processes		
Alternative 1	Alternative 2	Alternative 3
<i>Attribute:</i> Wetland function enhanced near lower loop of Thunder Ridge campground and road to Nowhere.	<i>Attribute:</i> Opportunity to restore local wetlands when Thunder Ridge campground redesigned.	<i>Attribute:</i> Possible new wetland degradation from new road to Nowhere and new Bomar campground construction.
<i>Advantage:</i> Somewhat better wetland protection in previously disturbed wetland area.	<i>Advantage:</i> Much better resource and process protection as well as wetland restoration.	<i>Advantage:</i> No advantage statement would be listed. (Identified as the least preferred attribute since the factor is "protecting natural resources and processes" and the attribute describes new impacts to wetlands in two areas.)

11.2 THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

After the environmental analysis has been completed for all alternatives, an environmentally preferred alternative must be identified and described. The description is included as a separate heading toward the end of the alternatives chapter.

The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed in NEPA (sec. 101(b)):

- (1) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- (2) Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- (3) Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.

11. IDENTIFICATION OF THE PREFERRED ALTERNATIVE AND THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

- (4) Preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- (5) Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.
- (6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The text should state which alternative is the environmentally preferred alternative and describe why in terms of the six criteria above. More specifically, the text should compare and contrast the alternatives as to how well each achieves the six goals. While fairly general, these goals address more than resource protection and include aspects of visitor use, recreational opportunity, etc. For example, goals 3, 4, and 5 speak of attaining “the widest range of beneficial uses”; supporting “diversity and variety of individual choice”; and achieving “a balance between population and resource use” and “a wide sharing of life’s amenities.” Identification of the environmentally preferred alternative may involve difficult judgments, particularly when one environmental value must be balanced against another, but by identifying the environmentally preferred alternative, NPS decision makers and the public are clearly presented with the relative merits of choices among the alternatives.

There is no requirement that the NPS preferred alternative and the environmentally preferred alternative be the same, although they usually are. Theoretically a planning team could identify as the NPS preferred alternative an alternative that has fewer environmental advantages than the environmentally preferred alternative. For example, the removal of a historic structure that is harming natural resources might be the environmentally preferred alternative. But the NPS preferred alternative might be to preserve the structure, recognizing that even with mitigation measures the alternative would not be as beneficial to the environment as would removal.

In cases where the environmentally preferred alternative and the NPS preferred alternative are not the same, the planning team may receive scrutiny and questions from both other NPS offices and from the public as to why the environmentally preferred alternative is not the agency’s preferred alternative. The rationale for selecting such an alternative would need to be compelling and well- documented.

See Appendix J.3 for examples of descriptions of the environmentally preferred alternative.

Reference: *The DO- 12 Handbook* (sec. 2.7.D and 4.5.E.9)

12. DRAFT PLAN REVIEW, FINAL EIS, ROD, EA, FONSI, AND FINAL PLAN

12.1 DRAFT PLAN REVIEW

12.1.1 Internal Review

Each region and DSC has its own processes and procedures for internal review and approval of various steps in general management planning prior to the release of a document for public review. Consult with the regional or DSC chief of planning to determine these requirements.

Policy consultation review by WASO program managers is required for a minimum of two steps in the development of the GMP: (1) at the project agreement step, where consultation is at the program manager level only, and (2) at the internal review of the public draft GMP, where consultation is at the directorate level. As outlined in the *NPS Management Policies 2006*, the primary purpose of the consultation with WASO is to involve program managers and NPS leadership in the major policy decisions early and at critical stages of the planning or study process. One of the important results of the planning process should be to assure that the NPS leadership is aware of and supports individual park plans and studies. Another purpose of consultation with WASO is to help ensure that plans for each unit are consistent with NPS policies and consider potential precedents or implications for other units. All planning documents submitted to WASO should be posted in PEPC (see Appendix A.4).

National parks constitute a gallery of American treasures. . . . In an era of growing population and shrinking space, they become ever more valuable. The future of the national parks, however, depends on awareness, concern, and sense of custody of the public they serve. In a democracy, we get what we deserve and leave a legacy that reflects ourselves and our time.

— Michael Frome, *National Parks in Crisis* (1982)

Draft GMPs may not be released for public comment before WASO policy consultation has been completed and the WASO directorate has given clearance to print the public draft. An example of a briefing statement for printing a document is included in Appendix K.6. Early consultation, especially before public review, is essential to avoid the potential for the public and the media responding to proposals that are not consistent with NPS policy and management direction.

For projects that are likely to be complex or highly controversial, a briefing for the WASO directorate at key points in the planning process is recommended. Such briefings may be appropriate during the phase when preliminary alternatives are developed; before publishing a notice of availability of the draft GMP/EIS; and occasionally when the final GMP/EIS is approved. As noted in Chapter 5, the WASO Park Planning and Special Studies program manager should be invited to such meetings. A briefing statement should be forwarded to Park Planning and Special Studies two days in advance of the scheduled briefing to ensure that the planning

manager and official to be briefed have some background on the topics to be discussed.

12.1.2 Public Review of the Draft GMP/EIS

Before a draft GMP/EIS can be distributed to the public, two *Federal Register* notices of availability (NOA) must be published, one by the Environmental Protection Agency and one by the National Park Service. The NPS *Federal Register* notice should be reviewed and published first. The GMP/EIS then needs to be mailed to recipients before the Environmental Protection Agency will run their *Federal Register* notice. Indeed, one of the first things the Environmental Protection Agency will ask is, “Have you distributed the documents to the public?”

NOTE: Standard language is required in the NPS *Federal Register* notice regarding the release of personal identifying information for those who provide comments. This text is included in Appendix D.8.

The National Park Service requires that a draft GMP/EIS be available for public review for a minimum of 60 days, beginning with the day the EPA notice is published in the *Federal Register*, not the NPS NOA (see sec. “4.2.3. NEPA Public Involvement Requirements”). Depending on the planning needs of the individual park, the public review period may be longer than that required for the NEPA EIS process.

More details on these *Federal Register* procedures are found in Appendix A.2. The website <http://www.archives.gov/federal-register/write/handbook/> is a good source of information on preparing documents for publication in the *Federal Register*. Planning teams should also check with the appropriate regional environmental coordinator for additional procedures for filing *Federal Register* notices.

Recipients of the Draft GMP/EIS

The planning team must send or make available a copy of the draft EIS to, and request comments from

- all federal agencies that have jurisdiction by law or special expertise, and all appropriate federal, state, or local agencies or Indian tribes
- any interested or affected individuals or organizations
- anyone who requests a copy

Several agencies are always consulted during the preparation of a GMP/EIS:

- the U.S. Fish and Wildlife Service for threatened and endangered species, and the National Marine Fisheries Service for certain marine threatened and endangered species
- the state historic preservation officer and/or tribal historic preservation officer, the Advisory Council on Historic Preservation, and associated tribes (if appropriate) for cultural resources
- the state coastal zone management agency if the park lies within a coastal zone

It is acceptable to send an electronic copy or make an electronic copy available if the requester has access to such a copy. With the high cost of printing, CDs are becoming more popular to send to the public. Postcards are sent out to the mailing list, either asking people what format they want to receive a draft (e.g., printed copy, a CD, or a website where they can print their own copy), or notifying them that unless the planning team receives a request for a printed document from a citizen or an organization, all recipients will receive a CD. After all printed copies and/or CDs have been distributed, persons requesting the EIS should be directed to PEPC or to the nearest library or government office that has a record copy.

Timelines for Review of the Draft GMP/EIS

As noted above, the National Park Service provides a minimum 60- day review period for a draft EIS, beginning when the Environmental Protection Agency publishes its NOA in the *Federal Register*. Park offices are, however, encouraged to take late comments if possible. The review period can be extended at the discretion of the park superintendent with appropriate notification of the Environmental Protection Agency. The decision to extend the review period may be based on some or all of the following considerations:

- Will the extension cause undue delays in a project with life or safety issues?
- Will granting the extension jeopardize the overall public participation effort?
- Will granting the extension jeopardize decisions that must be made immediately?
- Will the extension adversely affect natural, cultural, or even funding resources?

It may be appropriate to collect comments that arrive a few days after the review period has ended without formally extending the period.

Public Meetings or Hearings

The planning team may provide an opportunity for oral input on the draft GMP/EIS; however, the meeting or hearing should take place no sooner than 30 days from the time that the EPA NOA is published in the *Federal Register*. CEQ regulations require the planning team to hold a public input session under either of the following circumstances:

- substantial environmental controversy over the proposed action or substantial interest in holding such a session
- a request by another agency with jurisdiction over the action, with supporting reasons for its request

The format of the session may be a workshop, meeting, hearing, or other option, but attendees must be allowed to express reasonable substantive concerns regarding the draft GMP/EIS. Speakers may be limited to a certain number of minutes to ensure that all who wish to speak are heard, and attendees should be reminded that the purpose of the session is to collect input on the adequacy of the document and not to express preferences for or against the preferred alternative. An opportunity may be provided for attendees to declare their support or opposition in writing at the public

input session, or they may simply be encouraged to respond in writing during the remaining review period.

The meeting should be advertised through a notice or ad published in the local newspaper, direct mail, e-mail, notices posted in local gathering spots, or through community or other organizations. Press releases are published or aired at the discretion of the media, so they are not considered as reliable or effective as a paid advertisement.

Using PEPC to Analyze and Respond to Public Comments on the Draft EIS

The public communication, document, and comment analysis portion of PEPC (steps 6 and 7) is an effective tool for meeting public comment and response requirements identified in *DO #12*. The public can post comments directly into the PEPC system through a web-based comment form (<http://parkplanning.nps.gov>). While parks will still need to manually enter comments received from written correspondence, or oral comments, PEPC makes this conversion process easier. It is strongly recommended that PEPC be the only method of electronic comment made available to the public to reduce the amount of staff time to manually input comments. By directing the public to the PEPC website repeatedly throughout the process (to comment during public scoping, to review newsletters, etc.), the volume of comments received directly into the system will be maximized and staff time minimized.

Because PEPC is a web-based system, the response process can be streamlined because all correspondence is stored electronically in a centralized location and can be accessed by all members of the project team from various locations.

Once all correspondence is in the PEPC system, it is easy to flag the substantive comments from each letter received. Topic or subject matter codes are then used to categorize comments under various issue topics and to create responses to numerous comments addressing the same issue.

Another benefit of PEPC is an automated character recognition system that checks for form letters as correspondence is received. Once a master form letter is identified, the system compares the master form letter text to the text of all other correspondence. If the system verifies that 90% of the characters in a correspondence match one of the master form letters, it is flagged as a form letter, and there is no need to pull substantive comments and code them individually because that process will have been done for the master form letter.

Reports generated by PEPC can be helpful when viewing, analyzing, and responding to public comments. The reports can be downloaded into HTML, Word, or Excel formats to allow for further manipulation by the project team.

Throughout the public comment period, the project team can use PEPC reports to look for trends in public opinion, identify areas of the draft EIS that may need to be revisited, and prepare briefings for NPS managers or cooperating agencies. Because the system is web-based, the reports are automatically updated each time they are

accessed, allowing anyone on the project team to access the most current information.

Once the analysis of comments has been completed, the “Concern Response” report provides the responses and representative correspondence text for each concern (issue) statement under each code (topic). This report is a critical piece of any FONSI or final EIS, as it shows how the planning team responded to each comment — a requirement of *DO #12* and NEPA.

The public document and comment analysis portion of PEPC (step 7) is continually being improved and enhanced to provide additional functionality to a wider range of users. Enhancements to this step allow for smaller projects to be handled more easily within PEPC, allowing project teams that receive only a few letters to address comments individually rather than setting up a coding structure and creating concern statements. The reporting functionality in step 7 has also been expanded to allow for added flexibility. Users now have the option of customizing reports to show only the fields specific to their needs, much like an ad hoc report. Under the “tools” button on the PEPC home page there are also several aids and some training materials, including a list of answers to frequently asked questions about step 7.

Documentation of Consultation/Coordination for the Draft GMP/EIS

The draft GMP/EIS should include a brief history of public involvement and agency consultations, a list of preparers and their expertise, a list of recipients, and a list of the references used in developing the EIS. If it is the final EIS, this section must also include a response to comments section. The planning team should document the following:

- Describe any public scoping sessions or other public involvement efforts.
- Summarize important consultations that occurred during determination of issues and impact topics, development of the alternatives and mitigation, and preparation of the EIS, including consultations with the state historic preservation officer, the Advisory Council on Historic Preservation, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the state coastal zone management agency (if applicable). Note any environmental issues or conflicts discussed during these consultations that remain unresolved. List the names of all federal, state, and local agencies, national organizations, and experts consulted.
- Describe any relevant existing or proposed cooperative agency mechanisms, or consultation undertaken in compliance with other laws or regulations, including government- to- government consultations with Indian tribes. (Memoranda of agreement or understanding, formal agreements, major cooperative agreements, or documentation indicating final compliance with applicable laws or regulations, such as comments from the state historic preservation office, should be appended to the EIS or readily available for public inspection.)
- Summarize steps taken to identify and involve low- income and minority communities that would be affected by the proposal and alternatives.

12.2 FINAL EIS

After public review of the draft GMP/EIS, the planning team prepares and issues the final EIS.

12.2.1 Responding to Comments

The planning team must thoroughly address all substantive written and oral comments raised by the public or agencies during the 60- day review period and make every reasonable attempt to consider any issues raised or additional alternatives proposed. While planning teams typically focus on the analysis of written comments, it is also important to remember to analyze public meeting comments.

Substantive Comments

As noted in *The DO- 12 Handbook* (sec. 4.6.A), substantive comments are defined as those that do one or more of the following:

- (a) question, with reasonable basis, the accuracy of information in the EIS
- (b) question, with reasonable basis, the adequacy of environmental analysis
- (c) present reasonable alternatives other than those presented in the EIS
- (d) cause changes or revisions in the proposal

The planning team has several options for responding to substantive comments, including

- modifying the alternatives as requested
- developing and evaluating suggested alternatives
- supplementing, improving, or modifying the analysis
- making factual corrections
- explaining why the comments do not warrant further agency response, citing sources, authorities, or reasons that support the agency's position

Nonsubstantive comments include those that simply state a position in favor of or against the proposed alternative, merely agree or disagree with NPS policy, or otherwise express an unsupported personal preference or opinion. Although the planning team is only obligated to respond to substantive comments, it may decide for various reasons (e.g., politics, numbers of people responding, need to clarify the agency position) to also respond to selected nonsubstantive comments.

Format of Responses

There are two basic ways to address substantive comments. If there are not many comments, the planning team can include the substantive comment letters with the substantive comments numbered and the responses adjacent to or immediately following the letters. Examples of this approach include the 2004 *Pictured Rocks NL Final GMP / Wilderness Study / EIS* and the 2004 *Big Bend NP Final GMP/EIS*. The other approach is used if there are many comments, and the substantive comments

are paraphrased and summarized by issue or topic and a response provided. Examples of this approach include the 2001 *Mount Rainier NP Final GMP/EIS*, the 2005 *Rock Creek Park and the Rock Creek and Potomac Parkway Final GMP/EIS*, and the 2007 *Great Sand Dunes NP and Pres Final GMP / Wilderness Study / EIS*.

Every substantive comment has value, whether expressed by one respondent or many. All substantive comments are read and evaluated, and the planning team attempts to capture all relevant public concerns in the analysis process. Responses to substantive comments that simply correct or clarify statements in the GMP/EIS, or that add new information, should be made in the text of the document wherever possible. However, because members of the public or agencies may wish to know how the planning team responded to their comment, a short response to each substantive comment, and a section or page citation where the change was made, may be appropriate as well. (Note: Form letters or postcards with the same substantive comment should be analyzed as one comment, regardless of how many letters or post cards are received through a mass mailing. Following this procedure emphasizes to the public that the comment- response process is not a vote counting process.) Additional guidance is provided in *The DO- 12 Handbook*.

12.2.2 Abbreviated Final GMP/EIS

The CEQ regulations encourage the use of an abbreviated final EIS if no substantial changes to the draft EIS are needed. Section 4.6.D of *The DO- 12 Handbook* states that an abbreviated final EIS can be prepared if all of the comments on a draft EIS require only minor responses (i.e., making factual corrections or explaining why comments do not warrant further agency response) In addition, the handbook states, “in deciding whether an abbreviated final EIS is appropriate, you should consider whether the project is controversial or of national interest, the number of substantive comments received, and the scope of the project. As a general rule, a full final EIS is preferable for NPS documents.” However, with budget and schedule constraints abbreviated final EISs are being prepared more often. If a draft EIS satisfies the above conditions, a request can be made to WASO- EQD to prepare an abbreviated final EIS. Once WASO- EQD, in consultation with the Department of the Interior’s Office of Environmental Policy & Compliance (OEPC), gives permission, an abbreviated final can be prepared.

An abbreviated final EIS must contain a cover sheet, an explanation that this document must be combined with the draft EIS to constitute a complete final EIS, errata sheets, any responses to comments, and copies of agency and substantive comment letters.

Getting permission to prepare an abbreviated final EIS varies depending on the park, region, and WASO. Two important points to keep in mind are

- support of the regional office is critical
- a strong justification statement is needed (e.g., documenting a lack of controversy, no substantive comments on the draft EIS, no major changes being proposed in the GMP)

Examples of abbreviated final EISs include the GMPs for First Ladies NHS, Pea Ridge NMP, Minidoka Internment NM, and Saguaro NP.

12.3 RECORD OF DECISION

The ROD is the document signed by the regional director to substantiate a decision based on an EIS. Typically about 10 pages in length, the ROD describes the alternative to be implemented and includes a detailed discussion of the decision rationale used to choose the alternative. The ROD should provide enough detailed information on the alternatives and their impacts, the decision-maker's rationale in selecting the chosen alternative, and the extent of mitigation anticipated so that the reader can understand these issues without referring to the EIS.

CEQ regulations (40 CFR 1505.2) require that RODs include the following:

- a summary description of all alternatives analyzed in the EIS
- identification of the environmentally preferred alternative
- a discussion of the decision-making rationale, including what criteria (e.g., cost, degree of environmental impact, technical considerations, degree to which objectives were met, logistics) were used in selecting an alternative, how the criteria were weighted, and how each alternative measured up against the criteria
- a clear statement of any mitigation measures that would be implemented if they were not obviously integral to the alternative selected, and a summary of any monitoring or other enforcement programs or plans. The description of mitigation and monitoring should be specific enough to enable the public to determine whether measures have been effectively implemented, but not so specific as to duplicate the EIS.
- a statement of whether all practical means to avoid or minimize environmental harm from the selected alternative would be adopted, and if not, why not

In addition to these requirements, *The DO-12 Handbook* (sec. 6.2) lists several other requirements that must be satisfied before a ROD can be signed.

Impairment — Based on the facts presented in the EIS analysis and summarized in the ROD, the ROD must indicate that after a review of the impacts that the alternative to be selected for implementation would not impair park resources or values and would not violate the NPS Organic Act.

Wetlands/Floodplains — If the alternative chosen proposes actions that would be located in or have adverse effects on a floodplain or wetland, a wetland or floodplain statement of findings must be combined with the draft and final EIS. When it has been signed by the regional director, the statement of findings is attached to the ROD as a separately identifiable document.

Historic Properties — If the alternative selected for implementation would affect a historic property, and thus require consultation under section 106 of the NHPA, the information gathered as part of the section 106 review must be in-

12.4. *Special Considerations for a GMP/EA*

cluded in the EIS, and the section 106 process must be completed before the ROD can be signed. The ROD must include a statement describing consultation under section 106.

Threatened and Endangered Species — All consultation requirements defined under section 7 of the Endangered Species Act must be completed before a ROD can be signed.

Coastal Zone — If the park is in a coastal zone, a declaration of coastal zone management consistency from the appropriate state agency is required before a ROD can be signed.

The ROD, or a summary of the ROD, must be published in the *Federal Register*, as well as in the local newspaper of record (see “4.2.3. NEPA Public Involvement Requirements”). Also, the ROD must be posted on PEPC. Note that the GMP cannot be implemented until the ROD notice has appeared in the *Federal Register*.

An example of a ROD for a GMP/EIS is included in Appendix K.4.

12.4 SPECIAL CONSIDERATIONS FOR A GMP/EA

Most of what was written above for a GMP/EIS also applies to a GMP/EA. However, there are several differences between the two documents, which are described below. See also Table 1.3 for the workflow process for a GMP/EA and Chapter 5 of *The DO- 12 Handbook*.

12.4.1 Public Review of the GMP/EA

The DO- 12 Handbook requires that a GMP/EA be available for public review for a minimum of 30 days after a notice of availability is published in the local newspaper of record and posted on the NPS PEPC site. For a GMP/EA the length of time made available for a public review will vary, depending on the park and such factors as the range of alternatives, the number of public meetings to be held, time elapsed since the last GMP was prepared, the number of salient issues being addressed, interest level, number of stakeholders, other initiatives ongoing or pending, whether other promised plans have been timely delivered, tribal coordination, the complexity of coordination with other governmental agencies, the number of communities involved, whether wilderness or other studies are included within the GMP, time of the year the public is reviewing the GMP, etc. All of these factors will play into the decision as to the best length of time for public comment. It is very reasonable to release a GMP/EA to the public for longer than 30 days if that is most valuable to the planning process.

Although public scoping meetings are not required for EAs, in most cases public meetings will be held. As noted in *The DO- 12 Handbook* (sec. 5.5.C), a meeting should take place no sooner than 15 days from the time it is advertised or the notice of availability appears in the local paper of record, whichever is later. The review period for EAs must extend a minimum of 15 days beyond the date of the final meeting.

Unlike a GMP/EIS, a final GMP/EA is not prepared. After the GMP/EA is published, the planning team should review all the written and oral comments to determine whether any important new issues, reasonable alternatives, or mitigation measures have been suggested. As stated in *The DO-12 Handbook* (sec. 5.5.D), the EA must be rewritten and reissued if commenters raise major substantive issues that are not adequately addressed or new alternatives are suggested that the planning team wishes to consider. If any of the comments result in the determination that there is potential for significant impacts, then an EIS must be prepared. (See Table 1.3 for the steps required for a GMP/EIS, starting with the reissuing of a notice of intent in the *Federal Register*.)

If commenters correct or add factual information that has no bearing on the determination of significant impacts or that does not increase the degree of impact described in the EA, the information should be added to the text through the use of errata sheets. If other substantive comments do not require a change in the EA text, the planning team should respond to these comments in a separate “response to public comments” section. The combination of the EA, the errata sheet(s), and the response to public comments together form the record on which the FONSI is based.

12.4.2 The FONSI and Completing the EA Process

After the public comment period has ended, public comments are analyzed and appropriate changes and responses to comments are made in errata sheets, and assuming there is no potential for significant impacts, then a FONSI is prepared. A FONSI for a GMP should include the following elements:

- a description of the preferred alternative and the rationale for its selection
- mitigating measures
- alternatives considered
- identification of the environmentally preferred alternative and the rationale
- an explanation if the environmentally preferred alternative was not selected as the preferred alternative
- an explanation of why the preferred alternative will not have a significant effect on the human environment (i.e., explaining why each of the CEQ significance criteria do not apply)
- impairment findings
- a summary of public involvement
- consultation documentation with other agencies, if needed (e.g., consultation under sec. 106 of the NHPA, or sec. 7 of the Endangered Species Act)
- a conclusion statement
- a “response to public comments” section attached separately to the FONSI, which serves as the response to substantive public comments, if necessary
- errata sheets addressing factual errors, if necessary

- a statement of findings for wetlands or floodplains, if necessary

For more details on the content of a FONSI, as well as points about mitigation, errata sheets, and other compliance requirements, see section 6.3 of *The DO- 12 Handbook*. An example of a draft FONSI is included in Appendix K.5.

There are several other requirements for completing the GMP/EA process, including issuing a notice in the local newspaper and in the *Federal Register* that the FONSI has been signed and there will be a 30- day waiting period before the GMP is implemented (see Table 1.3 and “4.2. NEPA Requirements for GMPs”).

12.5 FINAL PLAN (PRESENTATION PLAN)

After the ROD has been signed and published in the *Federal Register*, a final presentation plan (separate from all the NEPA compliance pieces) may be prepared to guide park management for the next 15 to 20 years. It is up to the park staff to determine if this optional document will be prepared, although the decision to prepare the document should be included in the project agreement. This presentation plan serves as the public document to share with partners and other stakeholders information about the park’s purpose and its long- term goals. No approval signature is required on the presentation GMP since the plan is approved when the regional director signs the ROD. Caution must be exercised, however, that no substantive changes are made to the plan as presented in the final EIS or EA.

The park’s presentation GMP should include the following information:

TABLE 12.1: TYPICAL PRESENTATION GMP OUTLINE

Major Headings	Subheadings / Content
Introduction	Overview What is the purpose of the GMP? Brief History How and when was this plan developed?
The Foundation Statement	Purpose of the Park Why was it set aside? Significance of the Park Why is the park special and important? Primary Interpretive Themes What should all visitors know about the park? Special Mandates What specific agreements or legal mandates may conflict with park purpose? NPS Legal and Policy Requirements Overview of federal laws, policies and regulations that govern all units of the national park system. Fundamental Resources and Values What are the things that are critical to maintaining the park’s purpose and significance?
The Plan	Concept What is the vision for the future of this park? Management Zones Geographic overlay of the various resource conditions and visitor experiences to be maintained at this park that are compatible with the park purpose and fundamental resources and values. Desired Conditions Area specific guidance about the desired resource conditions, visitor experience opportunities, and kinds and levels of

Major Headings	Subheadings / Content
	management, development, and access for particular areas of the park based on the zoning. Also indicators and standards for user capacities. Boundary Modifications Any recommended adjustments in the park boundary that meet legislative criteria, along with a rationale for the adjustment.
Appendixes	Legislation Include a copy of the establishing legislation or proclamation. Record of Decision or FONSI Include a copy of the signed ROD or FONSI Summary of the process used to develop the plan, including the documents prepared
Bibliography	Resources used to prepare the plan?
Preparers and Consultants	Who helped prepare the plan and what is their expertise? Who was consulted in the plan preparation?

Two possible approaches for a presentation plan outline are presented in Appendix K.7.

12.6 PROJECT CLOSEOUT

An important part of the GMP process is project closeout, which should include

- a post- project review
- consolidation and filing of the administrative record
- discussion of the next steps needed to implement the plan

12.6.1 Post-Project Review

An important part of the entire GMP process is a post- project review to examine strengths and weaknesses in the process in order to assist the National Park Service in improving future GMPs. For more information on conducting a post- project review, check with WASO Park Planning and Special Studies. This office has developed a survey form that has been used on several GMPs, including those for Lassen Volcanic NP, Devils Tower NM, and Santa Monica Mountains NRA.

Recommended review participants

- park superintendent
- planning team captain
- key staff involved at the park, region, and DSC if appropriate
- key partners
- WASO planning program lead

Purposes of the review are to

- identify and share major success stories in order to improve other projects

12.6. Project Closeout

- identify aspects of the planning program that are not working well
- identify potential cost savings for future projects
- refine the overall NPS GMP development process by sharing successes and failures

Two post- evaluation activities should be completed:

1. a standard questionnaire should be filled out by individuals after the signing of the ROD (minimum requirement); a copy of two post project review forms, one for the park superintendent and one for others associated with the planning effort, are included in Appendix K.1. The completed questionnaires should be sent to the Division of Park Planning and Special Studies.
2. Key member s of the planning team and others associated with the project should meet or hold a conference call to discuss and share their observations and insights. A brief report highlighting key aspects of success worth sharing with other planners should be sent to the Division of Park Planning and Special Studies.

12.6.2 Administrative Record

Administrative records are collections of federal records that document the NPS decision- making process and are the basis for final agency actions. It is essential to keep an organized, complete administrative record in order to respond to Freedom of Information Act (FOIA) requests and/or litigation (see Appendix K.2). In the event of litigation, the court will review the project's administrative record to determine whether the NPS actions were arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

If the planning team fails to compile the whole administrative record, it may significantly impact the agency's ability to defend, and the court's ability to review, a challenged agency decision.

Documents that should be entered into an administrative record include those that

- contain information relating to NPS projects, decision- making activities, policies, and/or transactions
- were created or received by an NPS employee(s) acting in an official capacity
- have subject matter that concerns an authorized NPS activity
- answer the who, what, why, where, when, and how questions

Examples of records that should be entered into an administrative record include

- planning team meeting notes/transcripts where key decisions about the content of the document, issues to be examined in detail, alternatives, and so forth were made
- documentation of public involvement efforts, including minutes of public meetings, phone calls, and e- mails

- correspondence, including all public comment letters (hard copy and electronic)
- supporting documentation, such as maps, reports/studies, media publications and video, photographs, GIS data layers, databases, searchable web- databases, etc.
- internal documents (supporting studies, white papers, review comments, major milestone drafts of sections that were later used to create an EA or EIS, public comments and responses)
- public documents (including newsletters, EIS/EA, ROD, FONSI, web postings)

If there is any question on whether or not to include a document in the GMP administrative record, it is better to err on the side of including it.

Once documents have been printed, all the documents in a project's administrative record should be assembled in one hard copy file at the office with responsibility for compiling the administrative record. This responsibility should be identified in the project agreement. (See "Records Management" below.)

Records Management

The GMP administrative record is compiled, organized, inventoried, and submitted to the DSC Technical Information Center (TIC). TIC serves as the central repository for selected NPS records regarding new construction, major renovation projects, and major park planning and research. Parks and offices must submit copies of those documents that meet the current scope of collection for TIC, as described in the *DO #19: Records Management* and the associated handbook. This requirement applies whether or not DSC has direct involvement in the project. The park staff is also responsible for retaining records pertaining to the park planning process in the park's and/or the region's central files.

There are four main repositories for federal records relating to planning projects (see Appendix K.3):

- *Project Information Filing System (PIFS)* — Correspondence and other documents related to decision making may be sent to the PIFS Lotus Notes mailbox as these records are produced or received. These materials may also be submitted as a single submittal during project closeout.
- *TIC* — Studies, assessments, surveys, reports, draft and final GMPs/EISs/EAs, etc. may be submitted to TIC as they are produced or received, or as a single submittal during project closeout. All plans and newsletters that are/have been sent to the public should be provided in an electronic format to TIC.
- *Contracts* — Scopes of work, task orders, contract modifications, and other financial records need to be submitted to the DSC Contracting Division or park/regional contract offices. Many of these records will be conveyed to the contracting officer via the NPS electronic desktop procurement system (IDEAS).

12.7. Implementation of the GMP

- *Park Central Files* — Federal planning records generated and/or retained by the park need to be coded and placed in the park's and/or the region's central files.

Regardless of which repository federal records are entered into, all records having original signatures need to be submitted in hard copy.

PEPC and the Administrative Record

Depending on the nature and complexity of the project, PEPC can be the source of some of the primary and secondary documents needed for a project's administrative record. This saves both time and effort in tracking down requisite forms. The system can be used to generate forms, reports, and documents that need to be signed. It can also be used to print out reports, surveys, studies, public comments, and responses to comments, and other project- related documents stored within the system. However, PEPC cannot be used as a substitute for the "hard copy" administrative record because the administrative record requires documents with actual signatures, which the system cannot store.

Some items that must be included in the administrative record but are not captured by PEPC include day- to- day correspondence about the project and some project-related decisions. PEPC also does not capture e- mail correspondence that should be included in the administrative record.

Additional guidance on administrative records is contained in *DO #88: Documents Needed for Litigation*, which is posted at <http://home.nps.gov/applications/npspolicy/DOrders.cfm>.

12.7 IMPLEMENTATION OF THE GMP

Once the GMP has been completed, the park staff will need to identify the activities that should be the highest priorities for the park to undertake in the foreseeable future. Updating park program plans and strategic plans should be high on the list, since those plans address specific activities. It may be appropriate for the key GMP participants to stay involved with the park staff as they begin to identify what plans need to be prepared or updated and what activities need to be pursued. For instance, in order to implement the newly adopted GMP, regulations may need to be developed, PMIS statements should be prepared for budget requests, and additional site planning will likely need to be completed. Such post- GMP discussions should not preempt the park's program management or strategic planning processes but should inform them and help integrate them into a single framework for park planning and decision making, as described in the *Park Planning Program Standards*.

12. DRAFT PLAN REVIEW, FINAL EIS, ROD, EA, FONSI, AND FINAL PLAN

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