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

> 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

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

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 first identified (either internally or externally) as problematic now will not be so, the team should discuss these in the EIS 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.

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) • 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

- 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
☑ 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.
☑ 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 *The DO-12 Handbook* (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.
☑ 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 about the kind of place the park should be would more

Suggested Tools	Methodology
	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.
☑ Ask, "Which of these remaining ideas, interests, and concerns constitutes or contributes to GMP-level issues (questions to be answered by the GMP)?"	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.
☑ 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?"	Three categories of ideas, interests, and concerns may generate decisions or key questions a GMP needs to address: • 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 alternatives should be fully analyzed.

Suggested Tools	Methodology
	• 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.
☑ Keep a list of remaining interests and concerns.	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.

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 conducted, can allow planning teams to develop alternatives that minimize environ-

mental 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
☑ 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.
☑ 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.

Suggested Tools	Methodology
☑ Start and end with the identified issues.	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.) Keep these issues in mind when determining what specific questions need to be answered by the landscape analysis. Once a set of preliminary alternatives has been identified, check to see that all the issues are addressed by the landscape analysis, if appropriate.
☑ Make a list of specific questions that may need answers before the issues can be resolved.	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.
☑ Map the existing conditions.	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. 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. 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.

Suggested Tools	Methodology
☑ Identify the suitability of areas for various kinds of management and use.	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: • 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.) 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.
☑ Field check the landscape analysis conclusions.	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.
☑ Avoid analysis paralysis.	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.

Suggested Tools	Methodology
	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. 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.
☑ Develop and document a set of specific conclusions from the analysis.	Time should be set aside in advance in 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. 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.
☑ Understand the difference between analysis and value judgments.	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.

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).

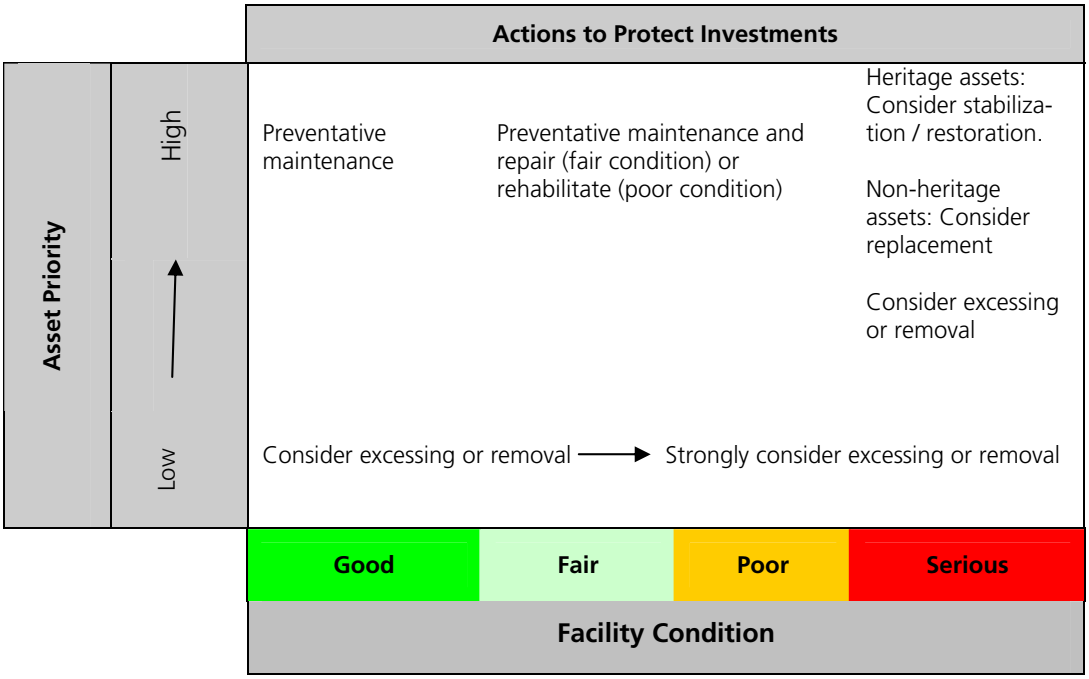
- The API can evaluate each of a park's facilities ("assets") in relation to the enabling legislation (purpose) of the park to determine its relative importance. The API worksheet is web-based and linked to the facility management software system (FMSS) used by all parks. Park staff answers a series 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



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 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.

7.2.4 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.

7.2.5 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.

7.2.6 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
☑ When describing management concepts, stay focused on what resource conditions and visitor experiences should be	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, partner-

Suggested Tools	Methodology
achieved in the park, not on how they might be achieved.	ships, 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.
☑ Consider whether the primary interpretive themes suggest different management concepts.	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.
☑ Avoid alternative management concepts that consider whether the park should be managed as a "natural area, cultural area, or a balance between the two."	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.
☑ Avoid alternative concepts that imply that maximum resource protection and maximum visitor enjoyment lie at opposite ends of a continuum.	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.
☑ Keep the alternative concepts "pure" so that the differences among them are easy to discern and evaluate.	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.
☑ Develop no more than four new alternative concepts, if possible.	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.

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.	Management zoning • 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 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
☑ 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.
☑ Consider a "menu" of potential management zones before actually mapping them (that is, before developing management zoning alternatives).	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. 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. 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 they might support, since that is secondary consideration to the resource conditions and experiences.)

Suggested Tools	Methodology
☑ 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.	Using a table format to develop potential management zones helps ensure that all the zone descriptions are complete and easily comparable. 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). 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). 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. 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.)
☑ Clearly distinguish the differences among the potential management zones in ways that will be meaningful to park managers and understandable to all stakeholders.	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 visitors an opportunity to experience wild lands with opportunities for challenge and adventure).

Suggested Tools	Methodology
☑ Acknowledge, wherever appropriate, that desired conditions might not be achieved and that there may be an acceptable level of impacts on resources or values.	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. 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. 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. 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.

Suggested Tools	Methodology
☑ 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.
☑ 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	Habitat attributes, including • structural complexity • diversity • connectivity of habitats inside and outside the park Biological processes, including • nutrient cycling • purification services Biotic interactions, including • predator/prey relationships • native/exotic species interactions Natural disturbance regimes, including • fire • flood • earthquake • outbreaks of native pests or disease • avalanche • landslide • storm erosion Population health of specific species • threatened/endangered species

Natural Resource Conditions	
	• endemic, rare species • migratory species
Hydrologic Processes and Features	Hydrologic features, including • springs • wetlands • major water bodies Hydrological interactions, including • surface/subsurface interactions in wetlands Hydrological processes, including • water flow dynamics • nutrient/temperature regimes • flood events
Geologic Processes and Features	Geologic processes, including • shoreline/barrier island formation • soil/rock erosion Geologic features, including • karst/cave formations • dunes • arches • soils
Soundscapes and Lightscapes	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

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 • 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 • 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

Management, Development, and Access	
	facilities and providing recreation opportunities Evidence of management and visitor use activities, including • 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 Level of education, interpretation, and orientation provided, including • 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	Level of management, including • 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 Research activities, including • 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	Facility types, such as orientation/education facilities, recreation facilities, support facilities, and administrative facilities The desired character of the developed area(s) (e.g., primitive with little or no site management or highly developed with well delineated boundaries) 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") The emphasis placed on blending the facilities with the natural or cultural surroundings The employment of green building techniques
Access	Level of accessibility, including • The level of access provided to disabled visitors, and how the level of accessibility may differ for existing versus new structures Primary modes of transport, including • 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.)

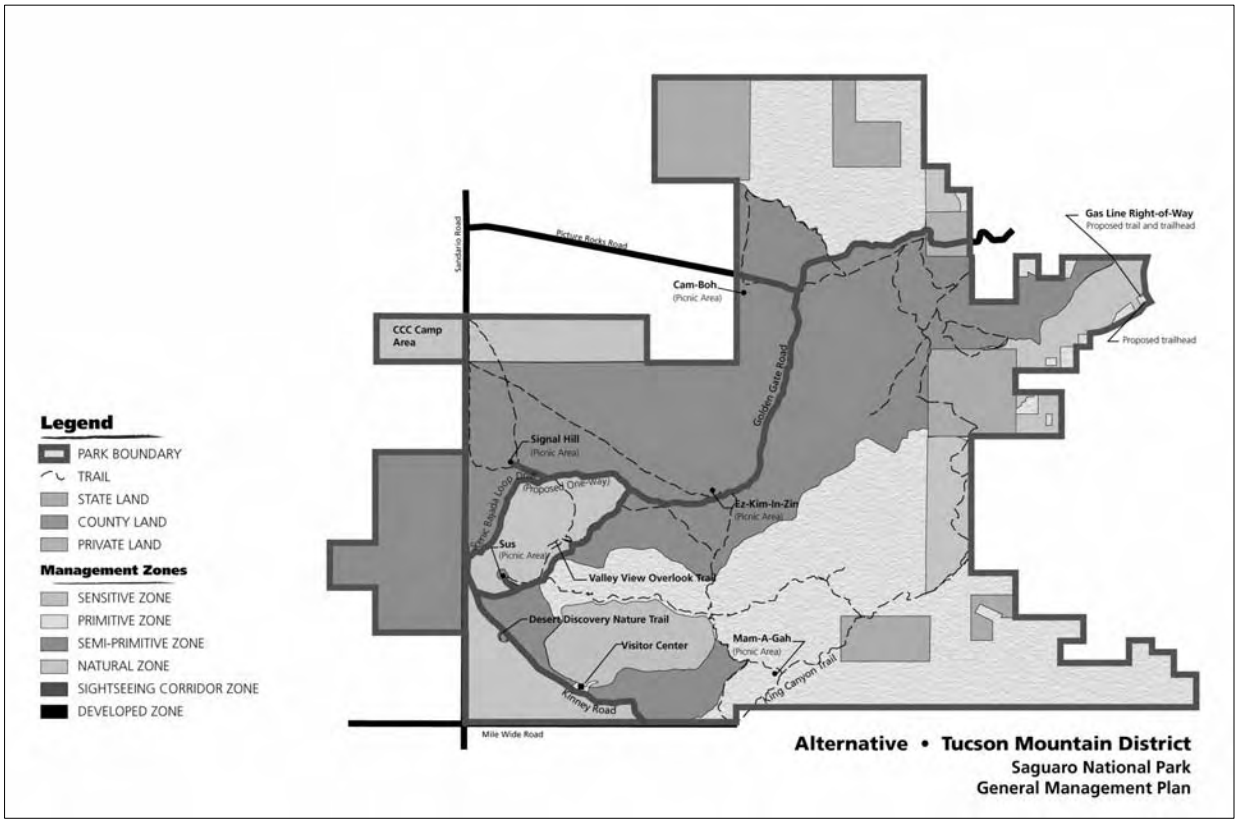
Suggested Tools and Methodology for Allocating Management Zones

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.

Suggested Tools	Methodology
☑ Allocate management zones to geographic areas throughout the park based on the management concept for each alternative.	Alternatives are developed primarily by allocating different management zones to different geographical areas to support the intent of the alternative concept. 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). 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. 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.
☑ Fully consider each area's potential future conditions, not just the existing conditions.	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.
☑ 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?"	Asking the question both ways will help ensure that reasonable zoning alternatives are not overlooked.
☑ Ensure that management zones have boundaries that are distinguishable in the field.	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.

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

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.

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 management, development, and access for each particular area of	Area-specific desired conditions: • Provide long-term direction for desired conditions for park resources and visitor experiences — what managers should achieve and where they should achieve it — while providing managers the flexibility to respond to rapid and constant change with

Definition	Program Standards
the park, based on how it is zoned Area-specific prescriptions also identify the kinds of changes needed to move from the existing to the desired conditions.*	discretionary actions. • 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
☑ 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.	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. Refer to the "Idea List for Desired Conditions" above for possible categories of desired conditions for the table. Review the methods and tools for developing potential management zones, as the same considerations will apply to the development of area-specific desired conditions. 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.

Suggested Tools	Methodology
☑ 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).	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. 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."

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 "7.2.5. 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

natural fire regime might be accomplished through mechanical thinning and reseeding, 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
☑ 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.	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. 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. 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. 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

Suggested Tools	Methodology
	visitor 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. Other examples of needed changes might include the following: • *Changes needed to achieve undisturbed natural system functioning* — 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 • *Changes needed to preserve a cultural landscape* — 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 • *Changes needed to achieve a particular visitor experience* — elimination or mitigation of competing uses, or the provision or elimination of amenities to achieve a level of support appropriate to the use
☑ Use the needed or allowable changes to verify that the zones have been appropriately located.	If the changes would be unacceptable under the alternative being developed, the location of the zone can be changed and a different zone applied.

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

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		
• Desired resource conditions	Current resource trends, projected into the future (the life of the plan)*	Desired resource conditions
• Desired visitor experience	Current trends in visitor experience projected into the future*	Desired visitor experience
• Desired kinds and levels of management	Current kinds and levels of manage-ment*	Appropriate kinds and levels of management
• Desired kinds and levels of access	Current kinds and levels of access*	Appropriate kinds and levels of access
• Desired kinds and levels of development	Current kinds and levels of development*	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:

- 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.