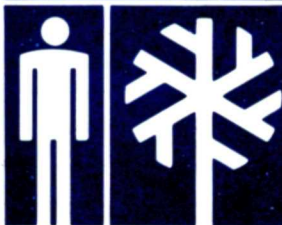


**national park service**

# **PLANNING & DESIGN PROCESS**

**INTRODUCTION / PLANNING / DESIGN / REVIEWS**



# Introduction

The two main goals of planning and design for our national parks are to preserve the environment and to lay the groundwork for the development of facilities. These objectives are often in conflict, and only by careful planning and design can both be achieved.

The National Park Service has developed a step-by-step, flexible planning and design program that ensures compatibility and compliance of management programs, public-use activities, and construction of facilities serving the public, with the resource and with the intent of the National Environmental Policy Act. This program can be applied to any project, large or small. It incorporates sociological, ecological, and environmental principles. The sequenced steps are sufficiently flexible to allow for their independent use, thus satisfying both the general and the specific design needs of park management. It is important to recognize that the process is not closed or "tunnel-like," but can be entered into at any point necessary to achieve the objective of a particular situation. Similarly, the process can be abandoned once the desired goal has been reached.

Throughout the process, periodic reviews and evaluations by management ensure high-quality planning and design, as well as compliance with the demands of good park management. Each park manager is responsible for ensuring orderly, timely programming of planning and design activities, while the planner ensures that suitability of the environment and the impacts of proposed actions are thoroughly evaluated prior to forwarding any proposal.

Planning and design activities are multidisciplinary team efforts with the full involvement of park managers and concessioners. As appropriate, each team consults with representatives of Federal, State, and local governments; public members representative of conservation groups, tourist agencies, and other organizations; and interested individuals.

Although both planning and design for the National Park Service are one process, are interrelated, and may even be performed by the same person or team, there are two basic functions — *PLANNING* and *DESIGN*.

# Planning

Planning, the first phase of the process, is conceptual and broad in scope, and deals with entire regions or parks, or portions thereof. It originates with a Development/Study Package Proposal prepared by park personnel, and ends with a report, a Master Plan, an Action Plan, or whatever is necessary to guide the orderly management, public use, and development of the park.

This phase falls into two categories: Pre-Authorization Planning for areas that have been proposed as additions to the National Park System, and Post-Authorization Planning for existing areas and those newly added to the National Park System. Both types are normally preceded by a reconnaissance study, which is a preliminary meeting or consultation between management and professional services personnel, when potential problems are identified, appropriate actions determined and agreed upon, and professional service proposals initiated. Reconnaissance studies will vary in style and duration and may be as simple as a telephone conversation or as complex as a field analysis by a team of experts.

**Pre-Authorization Planning** develops the data required by Congress when legislative proposals are being evaluated for incorporating new areas into the National Park System. It is a carefully sequenced procedure, in which each step should be completed before the next begins (although in practical application there is much overlap and simultaneous action), and it functions as follows:

A **New Area Significance Study** evaluates the proposal in terms of its merit to the National Park System. New areas entering the System must meet certain established criteria, and the most important one is that of national significance; i.e., does the area represent an exceptional value or quality that illustrates or interprets our natural or cultural heritage? National recreation areas must also meet criteria established by the President's Recreation Advisory Council.

A **Basic Resource Inventory** serves a most important function in that it must provide adequate socioeconomic, cultural, and ecological data to evaluate the suitability of the resource for management under the alternatives available to the Service, and to provide the planner

sufficient detail to objectively classify the land and prepare environmental assessments. The inventory provides those preparing planning documents with background information about other work at the site, cites relevant studies in the area, and outlines for the planner and designer the basic constraints of the environment, thus ensuring that any eventual development will incur only minimal maintenance cost and environmental impact.

A **Preliminary Statement of Management Objectives** defines the purpose of the park, its management category, and the objectives for its management, and is based in part on data in the Basic Resource Inventory. Normally, these statements are prepared by the park manager, evaluated as a part of the planning study, and submitted separately from, or as a part of, the draft Master Plan.

A **Planning Directive** is a contractual agreement to acquire professional services, as well as a planning guide and basic planning reference. It is prepared by the Denver Service Center professional support personnel, after they and the park management have jointly evaluated the problem and decided on a course of action. The Planning Directive establishes for all concerned a clear understanding of the scope, magnitude, and duration of the work to be undertaken, and it serves as a guide for reviewing the work while it is in progress. The Planning Directive includes a short, concise summary of the planning assumptions about an area and the conclusions based on those assumptions, together with planning recommendations, an analysis of planning needs, and a review of the work to date. The basic planning assumptions should be sufficiently detailed to convey a clear understanding of the planning to all who must follow the directive.

Directives also contain estimates of manpower, time, and costs to do the planning recommended in the directive. Regional Directors and the Denver Service Center personnel will find this a useful tool for establishing responsibilities, for programming and scheduling, and for management, which will derive from it information concerning the time required to complete the project.

A **Master Plan** identifies and evaluates alternative plans for land use, development, and public use of the proposed area. Such considerations identify and evaluate feasible alternative courses of action for protection, development, interpretation, and public use of the area under study, and consider the environmental impacts of these management alternatives.

As a minimum, such a study includes: a discussion of the background and purpose; the reason for protecting the area; a description of the study area and the physical, economic, and social aspects of the region affecting the proposal; an analysis of the resource, present uses, and ownerships; the environmental limitations; and a recommended course of action.

All Master Plans for new areas are accompanied by Environmental Statements, as required under the National Environmental Policy Act. Moreover, when historic properties are involved, the State Historic Preservation Officer must be consulted pursuant to Section 106, Historic Preservation Act of 1966. Following this, the plan is presented to the President's Advisory Council on Historic Preservation.

In the formulation of this analytical document, the planning process allows for consideration of the resource suitability as established in the Basic Resource Inventory, and the study of alternatives and their impacts as a result of land acquisition and management concurrent with development of Master Plan concepts. This procedure allows the National Park Service to evolve a management directive that will maximize environmental protection, and equally important, evolve developments that are environmentally compatible.

The Master Plan and its Environmental Statement, along with the Legislative Support Data, provide the basis for those such as the President, the Congress, and the public to fully assess the overall proposal on their own.

**Legislative Support Data** is required for new areas or for alterations to existing areas. Based on the Master Plan, it is detailed and quantitative information of the kind necessary for the evaluation and support of legislation and usually consists of the following information:

*a development schedule* — a 5-year program for the development and construction of facilities within and serving the park;

*a land acquisition plan* — including details about landownership; an appraisal of the value of private land; a tax loss statement; and a financial priority land acquisition program, with a land use plan, a boundary description, and a description of grazing, mineral, and timber values;



*graphic arts* — including maps (regional, boundary, general development plan, and general landownership), photographs, and graphs that visually describe the proposal;

*miscellaneous data* — additional information that may vary from project to project but that is essential to Congress when evaluating the proposal. This might include, but not be limited to, fact sheets about visitation statistics, special resource problems, and cooperating associations; and

*staffing and operations programs* — prepared by the Regional Office, this includes a 5-year staffing summary and an estimate of the personal services program necessary to operate the project for 5 years.

**Post-Authorization Planning** is a sequence of procedures that ensures an orderly post-authorization operation. In order to maximize the benefit from available public services and construction funds, each step in the procedure should be completed before the next begins. These procedures also provide for objective analysis of alternative management approaches in those circumstances that warrant taking steps to alleviate potential environmental hazards before initiating specific action. The post-authorization planning sequence is as follows:

The **Basic Resource Inventory** is programmed for periodic updating, thus assuring the inclusion and consideration of contemporary socioeconomic, historical, and ecological data of relevance in the planning process.

A **Preliminary Statement of Management Objectives**, prepared by the park superintendent, defines the purpose of the park, its management category, and the objectives for its management.

A **Planning Directive** is prepared by the Denver Service Center staff and park managers, supported by any special studies or reports that may be necessary. The studies should be designed to serve a specific management problem and may be in the areas of ecology, transportation circulation and networks, economics, or engineering feasibility. They may precede or follow the preparation of the Master Plan.

The **Master Plan** is the Pre-Authorization Plan adjusted to meet the demands of the authorizing legislation. It is accompanied by an

Environmental Statement prepared concurrently with the Master Plan. Section 106, Historic Preservation Act of 1966, applies to such Master Plans. This provides meaningful consideration in the decision-making process of the environmental constraints as evaluated in the Basic Resource Inventory and the feasible management alternatives, *prior* to completion of the plan. A well-prepared and documented Master Plan provides accurate information concerning the purpose of the park area, its resource value, its relationship to regional environs, the population it will serve and how, the objectives of management, land classification, concepts of visitor use and interpretation, and an overall plan for its management and development.

**Action Plans** describe in detail how the concepts in the Master Plan are to be accomplished. Some will be prepared by the Denver Service Center, and others by the Regional Office or park staff, with the assistance of the Denver Service Center when necessary.

The Action Plans and the Master Plan on which they are based form a **Comprehensive Plan** that must be adaptable for any needed revision and updating. Obviously, the nature of the documentation that comprises the Comprehensive Plan varies considerably depending upon the size and complexity of the park, but it is a flexible, dynamic source of information for management. Action Plans can be categorized as follows:

A **Resource Management Plan** (for natural and cultural resources) is a strategic planning document and a key factor in good management and preservation of the resource. As a minimum, it includes a land classification scheme (from the Master Plan), a statement of resource management concepts (also from the Master Plan), a description of the proposed methods for managing the resources of each land class, the expected impact of these methods, mitigating measures such as proposed research, and consideration of management alternatives and their impacts for each land class. This procedure will identify problems that require additional study and result in supplementary data for the Basic Resource Inventory. The Resource Management Plan is prepared by the Regional Office or the park staff, and must be supplemented by an Environmental Statement. Also, Section 106, Historic Preservation Act of 1966 must be observed.

A **Wilderness Plan** is required for all areas designated for study by Congress in the Wilderness Act of 1964 and subsequent legislation. Wilderness Plans are prepared by the Denver Service Center, and must be supplemented by Environmental Statements.

**Land and Water Rights Acquisition Schedules** establish priorities for acquisition of land and water rights (including inholdings) that have been identified in the general development, land classification, and land acquisition sections of the Master Plan. Land and Water Rights Acquisition Schedules are established by Regional Offices in compliance with the authorizing legislation and expected appropriations.

An **Interpretive Plan** describes the methods for accomplishing the proposals for interpretation and visitor orientation in the Master Plan. It is prepared by the Denver Service Center, with input from the interpretive media specialists at the Harpers Ferry Center.

The **Development Concept Plan**, prepared by the Denver Service Center or Regional Office, is a schematic representation of a developed area, showing circulation, allocation of space, and utilities networks. Sketches may be included to illustrate design concepts and relationships for specific types of facilities. The Development Concept Plan includes a supporting narrative describing the several development elements proposed, their function and scope, and their relation to the site.

An Environmental Statement and observance of Section 106 of the Historic Preservation Act of 1966 are basic requirements in preparing a Development Concept Plan, to ensure a timely and meaningful consideration of the suitability of the resource, as well as all reasonable development alternatives and their impacts.

The Development Concept Plan does not consider the proposed development in isolation, but as part of *all* development within a park area. Engineering design capacities for each facility within a developed area and the relationship of a developed area to others within the park allow the planner to estimate relative capacities and therefore provide for proper visitor distribution.

A **Concession Management Plan** normally prepared by the Regional Office is based on the Master Plan estimate of visitor services demands and should define the total, long-range concessioner-operated facilities and programs. It provides the basis for year-to-year contract renewals, as well as specific concession prospectuses.

**Programming Action Plans** — The programming of Action Plans is performed in a number of ways, depending on the nature of the plan.



Some, such as Legislative Support Data, Wilderness Plans, and Land and Water Acquisition Schedules, must be programmed to comply with legislative schedules and requirements. Action Plans that establish the operational requirements needed to implement Master Plan concepts should be programmed *as soon as possible* after concurrence in the Master Plan concepts. The following sequence is preferred:

Resource Management Plans, recommended research study proposals, and professional service proposals;

An Interpretive Plan;

Concession Management Plans; and

Development Concept Plans.

It should be noted that for small and non-complex areas, the Master Plan, Interpretive Plan, and Development Concept Plan, and their accompanying Environmental Statements should be programmed concurrently. For major areas, no Interpretive Plan will be prepared for the park as a whole. Rather, overall interpretive concepts will be part of the Master Plan, and Interpretive Plans and Development Concept Plans for specific developed areas should be programmed concurrently.

Once these steps have been completed and approved, Comprehensive Designs are programmed and the construction drawings prepared. Most development-related Action Plans and Design Plans require at least 3 years of preparation before construction begins:

First year — Interpretive Plan and Development Concept Plan

Second year — Comprehensive Designs

Third year — Construction Drawings

It should be emphasized that much more than a construction program must result from *comprehensive* planning. In fact, park planning, by the very nature of the resource it treats, should be characterized by its paucity of development proposals. Hence, park plans also provide guidance for resource management, historic preservation, visitor-use programs, public and congressional relations, publications and educational services, land acquisition, and all other facets of park operations.

# Design

Design, the second phase in the process, involves architects, engineers, interpretive designers, landscape architects, and other professionals who develop comprehensive designs, construction drawings and specifications, and other materials necessary for the development of the facility. Development/Study Package Proposals are prepared for each operating unit that is part of the Service's construction program.

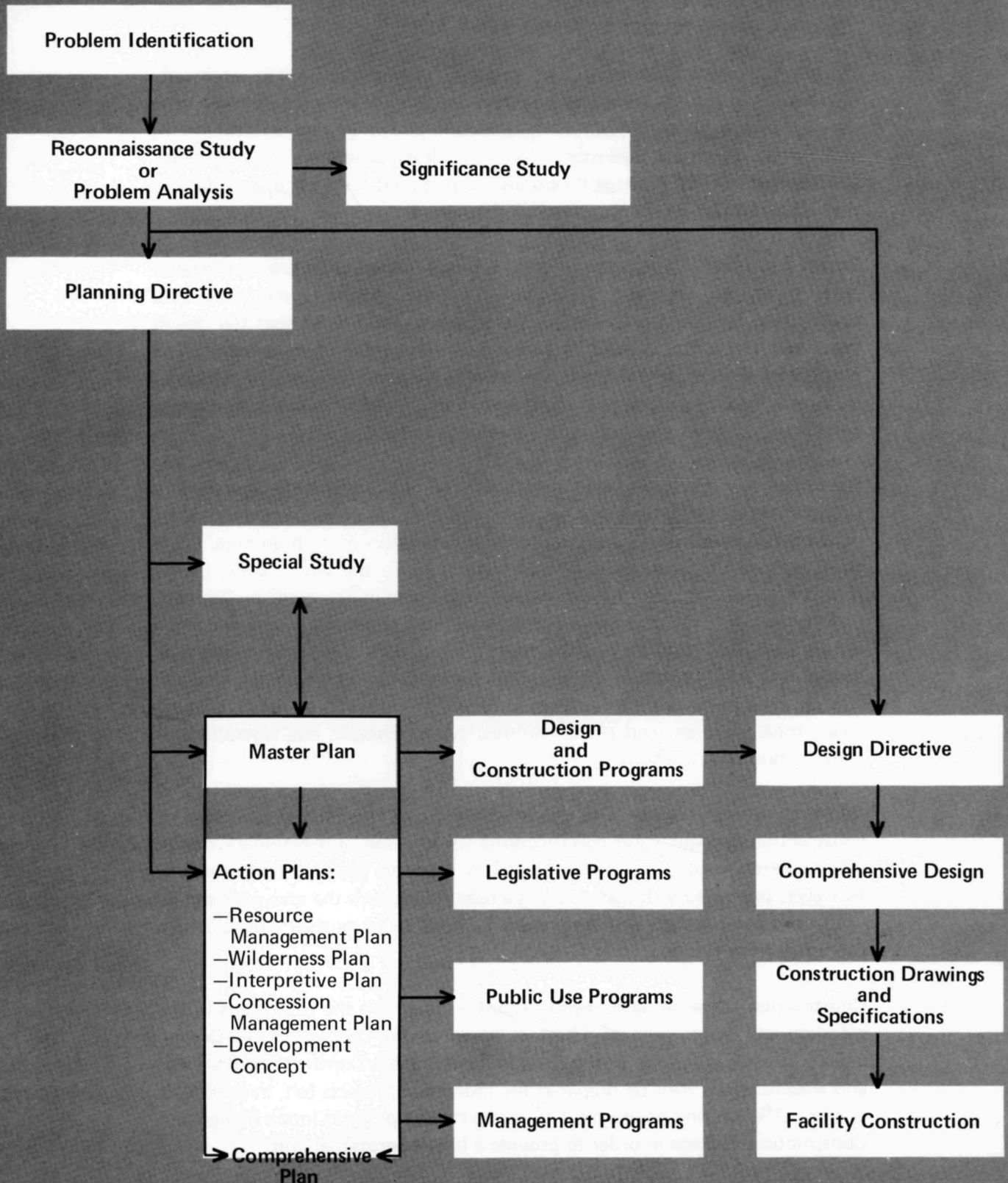
**Design Directives** — The preparation of a Design Directive follows the general pattern of the Planning Directive in scope, content, approval, and application. It should describe all of the design elements so that the design team will know the precise parameters within which it must work. The purpose of the Design Directive is threefold: to guide the work of the team; to inform management of how the Denver Service Center will function on its behalf; and to serve as a basis for reviews of the design.

**Comprehensive Design** — Once the Design Directive has been approved, a Comprehensive Design is prepared. This considers all physical developments planned for a park developed area, or usable portion of such an area. For a small park, a Comprehensive Design might involve the whole park, but it need be described only to the degree necessary to illustrate preliminary designs and to provide a basis for management review and approval. The Comprehensive Design may evolve from one or more of the action plans or special planning studies. It includes preliminary architectural designs; relationships of the structures to each other; the location of roads, parking areas, trails, utilities, and other features; typical details; and an outline of construction specifications.

Although Comprehensive Designs are essential to the final preparation of construction drawings and specifications for an area, a preliminary design plan is often used for a single facility in order to expedite construction. However, preliminary designs are not a reason to ignore the area-wide public use or the total design, and these must be considered as they would be in a Comprehensive Design.

**Construction Drawings and Specifications** — These are the final steps in the planning and design process. They are based on the Comprehensive Design, which, in turn, grew out of the Comprehensive Plan. Construction drawings and specifications may be prepared for individual projects but, in general, it is more efficient and economical to group related projects into a Design and Construction Package in order to provide a fully operational unit.

# planning and design process



# Reviews

The Planning and Design review process is a series of working and formal reviews coordinated and scheduled by the Director of the Denver Service Center.

The **Planning and Design Coordinating Committee** is charged with the responsibility of ensuring that the end product meets management requirements and the high standards of the National Park Service.

Directors of the Denver Service Center, the Region in which the project is located, and the Harpers Ferry Center serve on this committee, along with planning and design consultants. The Director of the Denver Service Center serves as chairman and is responsible for preparing agendas and coordinating all aspects of the meetings. The committee's principal purposes are to coordinate planning and design activities of the Denver Service Center, the Harpers Ferry Center, and the Regional Offices; evaluate and review all planning and design; provide a forum at which the various stages of the planning and design process can be presented to management for its review and approval; and review the Environmental Statements related to each project.

Most projects will reach the Planning and Design Coordinating Committee in final working-draft form, ready to go to the Regional Directors for consideration and approval. In some instances, however, it may be desirable to request the committee to review a project at some preliminary stage. Plans will be presented by the person most responsible for their preparation.

**The Professional Consulting Committee** is an adjunct of the Office of Design Quality in Washington, D.C., and it assists that office in monitoring design and setting standards that will improve physical development within units of the National Park System. The committee also serves in an advisory capacity in screening and selecting candidates for professional services contracts, although the final selection of contractors rests solely with committees assembled by the Denver Service Center and the Harpers Ferry Center. The Professional Consulting Committee has a particular concern for projects whose size, complexity, uniqueness, or other factors demand high priority and special sensitivity to environmental considerations. The Associate Director for Professional Services is chairman (*ex officio*), and the Assistant Director of Service Center Operations is vice-chairman (*ex officio*). The Director of the Office of Design Quality is coordinator for the committee, and the Director of the Harpers Ferry Center is also a member. Serving on the committee with these four are consultant members from a variety of disciplines – architecture, landscape architecture, planning, sociology, anthropology, and others. Coordination of the interests of this committee with those of the Planning and Design Coordinating Committee is assured by having the Director of the Harpers Ferry Center and one or more of the consultants serve on both committees. Furthermore, members of the Professional Consulting Committee freely attend meetings of the Planning and Design Coordinating Committee and participate in reviews of particular projects.

**Approval** of all reports, directives, Master Plans, Action Plans, Comprehensive Plans and Designs, and draft Environmental Impact Statements that comprise the planning and design process is the responsibility of the Regional Directors. The only exception is that the Service Center Director approves construction drawings and specifications in cases where they are consistent with the Comprehensive Design previously approved by the Regional Director; all other plans and reports must be approved by the Regional Director. Similarly, significant plans produced by Regional Offices, park personnel, consulting architects and engineers, and other Federal agencies for the National Park Service, must follow this review and approval procedure and be recommended by the park superintendent or the Director of the Service Center.

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**Denver Service Center**

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