National Park Service
United States Department of the Interior

Federal Highways Administration
United States Department of Transportation

Park Roads and Parkways Program Handbook

GUIDELINES FOR PROGRAM IMPLEMENTATION

Preface: This handbook was written and edited by the many program stakeholders that contribute to the daily operation and success of the Park Roads and Parkways Program (PRP) over the years and today. The handbook represents a multi-discipline effort by professionals from the headquarters and field staff of the National Park Service and Federal Highway Administration (FHWA). It provides an excellent working representation of the Park Roads and Parkways Program business practices. The manual compiles all the important policies, procedures and key milestone events at both the project and program levels. The manual was written for a broad audience of readers to give both a general and detailed accounting on how the program and project delivery aspects of the PRP work on a daily basis. The information articulated throughout the source provides helpful pointers on how the program works as experienced and detailed by the staff that deliver the multi-million dollar transportation construction program.

These professionals are the custodians of a vast transportation system that includes approximately 5,450 miles of paved roads, 4,100 miles of unpaved roads, 1,414 bridges, 63 Tunnels and 110 alternative transportation systems (e.g., buses, trolleys, ferries and trams). The paved roads alone stretch the distance between Washington DC and Los Angeles, California. The system of paved roads and bridges represent a Federal investment of over $20 billion dollars. In Fiscal Year 2007, the program covered the coordination, scheduling and tracking of a $225 million dollar construction program, with 320 projects in 116 parks, in seven regions and 42 states. Roadways and bridges provide critical access to and within the parks. With the support of our partner the FHWA, during Fiscal Year 2007 the NPS rehabilitated and reconstructed 97 miles of roadway achieving a 99 percent obligation rate of program funds. Actual construction (e.g., paving roads and rehabilitating bridges) constituted 75 percent of the total expenditures from the Park Roads and Parkways Program. The remaining 25 percent was for design, environmental compliance, planning and administration. This handbook seeks to capture the who, what, where, when and how the stakeholders deliver the PRP.

Business practices change through improvements to streamline processes, changes in legislation, increases and decreases in funding and integration of new technologies. Accordingly, this is an evolving document that will change and adapt to meet future challenges of the Park Roads and Parkways Program.

The document is intended to provide general guidance and best practices for administering the PRP and generally caring for the road and bridge based transportation infrastructure within the National Park Service. **This document does not take the place of formal laws, codes, regulations, executive and director orders, policies, design standards and interagency agreements.**

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PARK ROADS AND PARKWAYS PROGRAM

GUIDELINES FOR PROGRAM IMPLEMENTATION

January 31, 2008

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CC. NPS Financial Forms - *Under development*
DD. Highway Earmarks Guidance and Related Forms

NPS/FLHP Coordinators, June 2007

	OFFICE	FAX

ALASKA REGION
PAUL SCHROOTEN 907/644-3388 907/644-3804
NATIONAL PARK SERVICE
240 WEST 5th AVENUE
ANCHORAGE, AK 99501

INTERMOUNTAIN REGION
JAYNE SCHAEFFER 360/619-7764 360/619-7346
NATIONAL PARK SERVICE
IMDE-FM, 12795 W. ALAMEDA PARKWAY
P.O. BOX 25287
DENVER, CO 80225-0287

MIDWEST REGION
WAYNE VANDER TUIN 402/221-3491 402/221-3465
NATIONAL PARK SERVICE
1709 JACKSON STREET
OMAHA, NE 68102

NATIONAL CAPITAL REGION
DAVE HAMMERS 202/619-7270 202/619-7066
NATIONAL PARK SERVICE, RM 352
1100 OHIO DRIVE, SW
WASHINGTON, D.C. 20242

NORTHEAST REGION
BOB HOLZHEIMER 617/223-5137 617/223-5158
NATIONAL PARK SERVICE
15 STATE STREET
BOSTON, MA 02109

PACIFICWEST REGION
JUSTIN DeSANTIS 510/817-1385 510/817-1489
NATIONAL PARK SERVICE
1111 JACKSON STREET, SUITE 700
OAKLAND, CA 94607

SOUTHEAST REGION
KENT COCHRAN 404/562-3124 404/562-3257
NATIONAL PARK SERVICE
ATLANTA FEDERAL CENTER
1924 BUILDING
100 ALABAMA STREET, SW
ATLANTA, GA 30303

NPS/FLHP Coordinators (con't)

	OFFICE	FAX

DENVER SERVICE CENTER TRANSPORTATION DIVISION
GEORGE TAIT 303/969-2688 303/969-2736
Branch Chief, Park Roads Program
BOB WELCH 303/969-2460 303/969-2736
Branch Chief, Transportation Planning
NATIONAL PARK SERVICE
TRANSPORTATION DIVISION
12795 W. ALAMEDA PARKWAY
P.O. BOX 25287
DENVER, CO 80225-0287

Federal Lands Highway Coordinators, August 2007

CENTRAL FEDERAL LANDS HIGHWAY DIVISION
Elijah Henley, Park roads program coordinator
12300 West Dakota Avenue
Lakewood, CO 80228
Voice: 1-888/739-1055 Fax: 720/963-3379

EASTERN FEDERAL LANDS HIGHWAY DIVISION
Janice (Ann) Dayton, nps Program Manager
21400 Ridgetop Circle
Sterling, VA 20166-6511
Voice: 703/404-6293 Fax: 703/404-6217

WESTERN FEDERAL LANDS HIGHWAY DIVISION
Richard Bronder, Program Coordination engineer
610 E 5th Street
Vancouver, WA 98661
Voice: 360/619-7700 Fax: 360/619-7846

FOREWORD

This guideline is intended as a ready reference to the program and project management processes of the Park Roads and Parkways Program (PRP Program), a jointly administered transportation program of the National Park Service (NPS or Park Service) and the Federal Highway Administration (FHWA). The agencies want to ensure that everyone who participates in the PRP Program understands what needs to be done to provide a high quality and cost-effective transportation system for our national park system.

This guidance document provides information on goals, policies, roles and responsibilities, planning, coordination, fund sources, budgeting, programming, project development, and project delivery. The guidance updates the processes and procedures for the PRP Program since the last (January 1998) procedures document—FLHP Park Roads and Parkway Revised Funding and Prioritization Procedures—and includes information on related programs that support transportation in the national park system.

As the PRP Program evolves over time and new legislation is enacted, periodic updates will be required. To facilitate that process, this document is organized so that, to the greatest extent possible, material that is likely to change more frequently than every three to four years is put into an appendix. This includes: program guidance, eligibility criteria, forms, allocation formulas, and process charts. Other extensive or in-depth material, such as glossaries, other manuals, copies of legislation, and stand-alone publications are also included in the appendixes.

The primary means of access to this guideline is on the public NPS Web site, so that both agencies and other public and private partners of the PRP Program can obtain the information they need. With the exception of the "Overview" (Chapter I), each chapter relates to a single important PRP Program topic or process. In this manner it should be easy to download just the information needed for the task at hand. A limited number of printed copies are available from the NPS Regional FLHP Coordinators (Coordinators. Updates to the appendix and text are the responsibility of the Servicewide Maintenance Advisory Committee–Federal Lands Highway Program Subcommittee (SMAC-FLHP), which includes the Coordinators and the Federal Lands Highway division staff, among others. Contact information for these individuals is located on the prior page.

DOCUMENT ORGANIZATION

In the following chapters you will learn about the guiding policies of the PRP Program as well as day-to-day management issues, procedures, and processes. Detailed guidance, technical definitions, procedures, legislation, and other items subject to change every few years are included in the appendix to these guidelines. The chapters are organized from the general to the specific.

Chapter II. Program Goals and Performance

This chapter describes the vision, mission, and goals for transportation in national park system units and sets out performance measures to track progress in attaining those goals.

Chapter III. The Park Roads and Parkway Program and Other Funding Sources

The three categories of PRP funding are described in this chapter, along with examples of eligible activities. Other public programs and fund sources, which have been used to supplement PRP projects or fully fund transportation capital projects and services, are also described. The final section of the chapter is a table (III.1) listing the major federal transportation programs, their funding levels, basic eligibility, and matching requirements.

Chapter IV. Park Roads and Parkways Program Roles and Responsibilities

The focus of this chapter is on the primary responsibilities of the two agencies and their respective units involved with implementing the PRP Program and certain other federal transportation programs for the Park Service. The chapter also describes the potential roles of public and private sector partners.

Chapter V. Planning and Management Systems

As a jointly administered program of the National Park Service and Federal Highway Administration, planning for PRP projects should reflect the applicable decision support systems of both agencies. This chapter summarizes key planning requirements and decision tools for each agency as they relate to the PRP program.

Chapter VI. Program Development and Funds Management

This chapter describes the funding requirements of the federal Highway Trust Fund, the decision-making process surrounding selection of PRP projects, and the development and execution of the multiyear and annual program of projects. Management of the funds, once project decisions are made, is explained in section D.

Chapter VII. Design and Construction (Project Delivery)

The purpose of this chapter is to identify the activities involved in delivering a completed project, from the initial project scoping through the completion of construction. This chapter describes the key processes, procedures, and responsibilities of FLH and NPS staff.

Appendixes

Each chapter and section of the appendix is a separate PDF or Web page/link to allow the user to download individually, as needed. This arrangement also facilitates keeping the guidelines up-to-date.

CHAPTER I
OVERVIEW OF THE PARK ROADS AND PARKWAYS PROGRAM

This chapter provides a summary description of the Park Roads and Parkways Program (PRP Program), which operates as a partnership between two federal agencies—the Federal Highway Administration and the National Park Service. As a general summary of these guidelines, the chapter highlights the recent history of the PRP Program, the current investment strategy, the development of annual and multiyear work programs, and key improvements in the delivery of projects.

A. FEDERAL LANDS HIGHWAY PROGRAM (FLHP)

The first federal funds for roads serving federal lands (national forests) were provided by the Congress in the Federal-Aid Road Act of 1916. In that same year, Congress established the National Park Service (NPS or Park Service). The NPS Organic Act, codified in Title 16, United States Code (USC) Chapter I, established the National Park Service's mission, which remains in place to this day:

> [T]o conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

Federal funding for roads, trails, and bridges in national park system units[1] began about 1924. The first interagency agreement between the Park Service and the Bureau of Public Roads (predecessor of today's Federal Highway Administration) to provide road design and construction assistance was executed in January 1925. This relationship continues today, making it one of the longest, if not the longest, formal partnership between any two federal agencies.

Yosemite

Today, the partnership between these two agencies is known as the Park Roads and Parkways Program (PRP Program). The PRP Program is a component of the Federal Lands Highway Program (FLHP), which was established by federal legislation in 1982. The Federal Lands Highway Office (FLH) provides financial management, engineering, and construction management support for the PRP Program and similar programs with the U.S. Forest Service, the Bureau of Indian Affairs, and (most recently) the U.S. Fish and Wildlife Service. Funding for the Federal Lands Highway Program began in fiscal year (FY) 1983. The current interagency agreement addressing roles and responsibilities between the two agencies was signed on May 19, 1983. (See discussion of the interagency agreement in Chapter IV.)

Funds are allocated to the Federal Lands Highway Program on an annual basis from the federal Highway Trust Fund (Trust Fund), which is supported by the federal motor vehicle gas tax and certain excise taxes. The funds may only be used on roads and transportation facilities open to the public (as opposed to administrative and residential roads), and funds may not be used for routine maintenance activities (e.g., snow plowing, patching, and restriping). All operational and routine maintenance costs remain the responsibility of each agency. (See Appendix D for a complete eligibility list.)

Under the auspices of the PRP Program, the two agencies maintain and improve the quality and condition of some 8,000 miles of public roads (paved and unpaved) and 1,792 bridges and tunnels. Since 1999, alternative transportation projects, such as transit services, also have been supported with PRP funds. In 2006 Congress approved a new program for transit, trails, and bicycle and pedestrian facilities, known as the Alternative Transportation in Parks and Public Lands (ATPPL) Program. This competitive program is the primary source of funds for these purposes in park units, with FLHP funds now used to augment grant awards, where needed. The ATPPL Program is administered jointly by the U.S. Department of Transportation (DOT) and the Department of Interior (DOI).

B. PRP PROGRAM FUNDING HISTORY

Prior to 1983, all NPS infrastructure improvement projects—ranging from roads to sewage treatment plants—competed annually for appropriated NPS construction funds. With increasing park visitation and greater demands for spending on all types of infrastructure, support for transportation projects was unreliable and the condition of the NPS transportation system was deteriorating. The Federal Lands Highway Program was established[2] with the hope that a dedicated and reliable funding source for park roads from the Highway Trust Fund would reverse this trend.

In 1987, after four years of reasonably adequate funding, financial support for the program was substantially cut and remained low until 1998.[3] The decade of reduced funding resulted in a substantial decline in the condition of park system roads and bridges. Circumstances improved in 1998 when federal legislation doubled the annual dollars available. At the same time, however, the Federal Highway Administration placed controls on spending—known as obligation limits. This limitation has reduced the funding available to the PRP Program each year by 8% to 16% below the authorized levels. The result of this funding situation is that funds have been adequate to arrest the steep decline in road pavement conditions, but the overall condition of NPS transportation facilities remains at a much lower level than anticipated or desirable. The backlog of maintenance and rehabilitation needs

Blue Ridge Parkway

Great Smoky Mountains National Park

for roads was estimated at $4.9 billion in 2005, more than twice the estimated costs to remedy the maintenance backlog of all other NPS assets.

During the next legislative cycle in 2005, Congress[4] increased PRP Program funding to more than $200 million annually. At this level, the PRP Program is one of the largest NPS programs. Nevertheless, steep inflation in materials and energy costs in 2005 and 2006 meant that the 29% funding increase barely kept the PRP Program even with inflation, as shown in chart I.1. At the time the legislation was passed, NPS Washington Office (WASO) staff analysis showed that funding levels would enable moderate improvement in overall road condition by 2009. As a result of the decreased purchasing power of available dollars, however, the staff estimated in 2007 that overall road condition would remain the same or decline from 2005 conditions in that time period.

C. PRP PROGRAM RESTRUCTURING

In the early years of the PRP Program, most of the funds were expended on projects to widen and upgrade roads to more modern standards. These types of projects were extremely expensive, with a high cost per mile of construction. The result was that very few miles of the NPS road system were rehabilitated or reconstructed in a given year. This pattern of spending, combined with inflation in costs and inadequate funding, accelerated the rate of decline in roadway conditions. In addition, there was a general feeling among both NPS and FHWA staffs that the program was not operating in the most efficient manner.

In 1998 the two agencies restructured the PRP Program, recognizing that this spending pattern was unsustainable and that program management improvements were needed. These changes were phased in during three years and fully implemented by 2001. The major components of this restructuring were as follows:

1. **Creation of three program categories**

   a. Category I for rehabilitation and reconstruction of the primary road system
   b. Category II to complete the congressionally authorized parkways
   c. Category III as a pilot to develop alternate modes of transportation

2. **Shifting management of the Category I portion of the PRP Program from the Washington Office headquarters (known as WASO) to each of the seven NPS regional offices.** Management of Categories II and III remains in the Washington Office. The Washington Office retained the primary responsibility for setting policy and overseeing program direction.

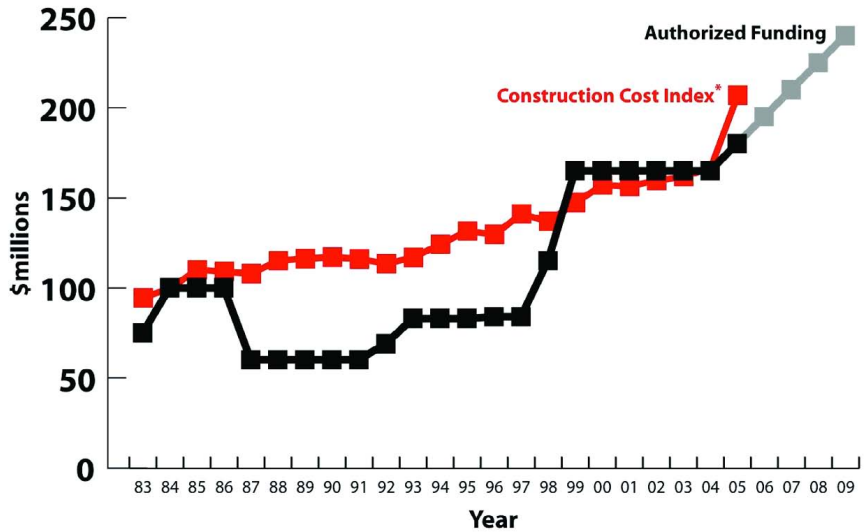
3. **Allocation of Category I funds among the NPS regions using a mathematical formula.**

4. **Within Category I, establishing two subcategories of projects and allocating funds between the two subcategories in a manner that optimizes investments:**

   a. Most funds are directed to Resurfacing, Restoration and Rehabilitation (3R) projects.
   b. A lesser level of funding is directed towards Resurfacing, Restoration, Rehabilitation, and Reconstruction or Realignment (4R) projects.

Funds for 3R projects may only be used for work that extends the service life of an existing road and/or enhances safety. Such 3R work includes the placement of additional surfacing materials and/or other work necessary to return an existing roadway (including shoulders, the roadside, and appurtenances) to a condition of structural

Chart I.1 Park Road and Parkway Funding vs. Inflation

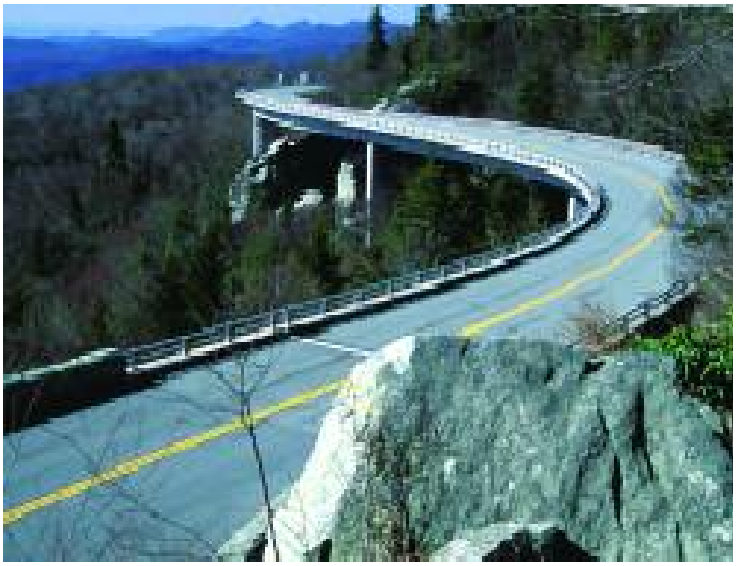


Explanation: The authorized program levels are compared to the value of the 1984 authorization of $100 million as inflated by the construction cost index developed by the FHWA. The authorized funding leve is not adjusted by the amount of Congressional take-backs, which have been in the range of 8-16% since 1998.
* *Price Trends for Federal-Aid Highway Construction* (http://www.fhwa.dot.gov/programadmin/pt2005q3.pdf), which includes excavation, surfacing and structural costs, such as steel and concrete. CCI for 2005 does not include the fourth quater.

adequacy. Costs for 3R projects can range from as little as $250,000 per mile to more than $1.0 million per mile depending upon complexity and location.

Road reconstruction or realignment work (4R) consists of altering the geometry of the roadway either through widening or modifying the current horizontal and/or vertical alignment. These types of projects are typically much more complex and costly than 3R projects and result in more impacts to resources along the road. Included in 4R project work are the replacement of large bridges; the relocation of roads; and the construction of new roads, bridges, parking areas, or parallel bicycle paths. Costs for 4R projects can range from $1 million to $5 million or more per mile.

Daily management of the PRP Program is accomplished through a small staff in the NPS Washington Office and by the FLHP Regional Coordinator (Coordinator), a designated individual in each NPS region. The Coordinator serves as a bridge between the park units, NPS Washington Office, and the Federal Lands Highway. Over



Blue Ridge Parkway is one of the many engineering challenges for the PRP Program.

the years, Coordinators have taken on increased responsibilities within the transportation arena. In 1999 they assumed responsibility for managing the region's involvement in the Transportation Management Program (TMP) (formerly known as the Alternative Transportation Program). Most Coordinators also handle the region's involvement in other federal transportation programs, including Emergency Relief, Public Lands Discretionary Projects, High Priority Projects, Scenic Byways, and Transportation Enhancements.

The three Federal Lands Highway divisions (FLH divisions) provide technical services to develop projects, as well as to support research and data collection and analysis largely relating to transportation. Ideally each NPS region

New road surface contrasts with work yet to be done.

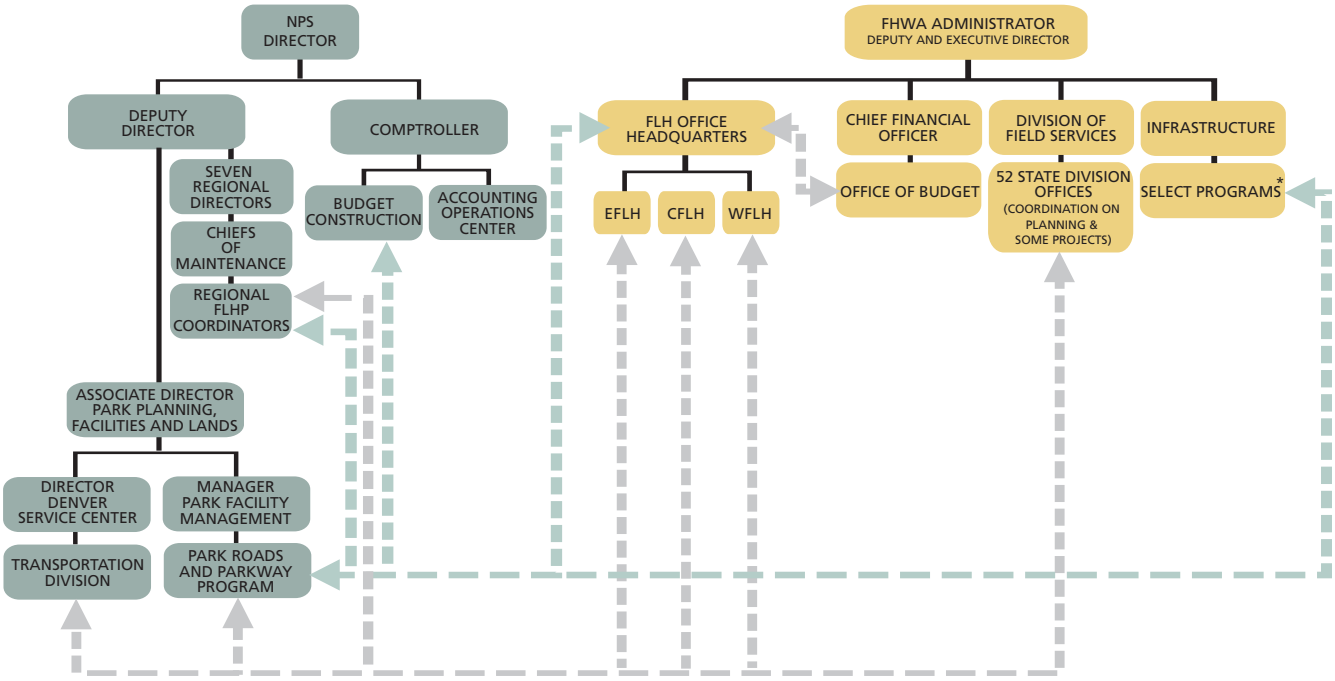
would work with one of the divisions. Due to the different geographic areas covered, however, three of the seven NPS regions work with two different FLH divisions. The NPS Denver Service Center (DSC) serves in a similar consulting position, but its focus is on landscape architecture, environmental compliance, and related disciplines. The two organizations (FLH divisions and Denver Service Center) undertake their work at the request of the NPS regions and park units as well as the Washington Office. The general way in which these organizations are aligned to successfully implement the PRP Program is in figure I.2. Maps of the NPS regions and FLH divisions are included in Appendix E.

D. PRP PROGRAM INVESTMENT STRATEGY

To ensure that the limited funds of the PRP Program are spent as effectively as possible, the first decision is focused on allocation among the three categories of PRP Program funds. Between 1999 and 2007, at least 80% of available dollars were used for Category I to preserve the basic function of the road system, which is also critical to other modes of travel in most park units. The ratio for each region, however, varied each year to respond to needs indicated by staff knowledge and modeling results. This overall direction continued for the FY 07–11 multi-year program.

The next decision is between 3R and 4R projects. To determine the split, the PRP Program staff model the condition of the transportation system with various splits between 3R and 4R spending over time. The split in allowable funding between 3R and 4R work is periodical-

Figure I.2 Organizational Relationships for Park Roads and Parkways Program*



*Includes certain special project funding from the Federal Lands Highway Discretionary Program and certain earmark projects (under Title 23 use).

ly revised to spend the available funding in the most efficient ways. In 2000, a minimum of 60% of Category I funds were expended on 3R projects. In 2004 this ratio was increased to a minimum of 65%, and in 2006, 3R funding further increased to a minimum of 80% of Category I.

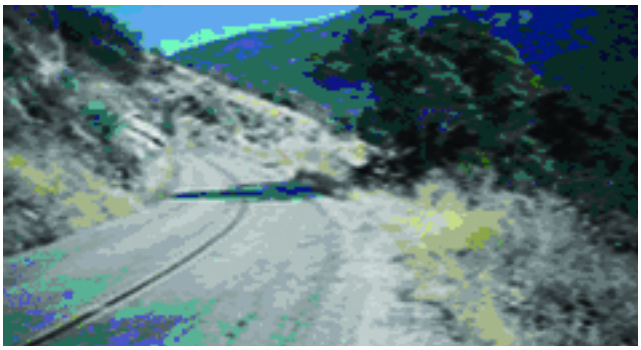
In these models, rehabilitation (3R) work moves a road from its current condition to an excellent condition (which is a value of 100) for a much lower cost per mile than does reconstruction (4R) work. The primary difference between the two work categories is the cost of raising the road value to 100. In rehabilitation, funds are expended primarily on the existing roadway bench to raise a road condition to 100. In reconstruction (4R work), additional funds are expended on work such as widening or realigning outside the road bench, which significantly increases the cost of a project, while still only raising the road condition to a value of 100.

These models provide important information for policy development; however, they are not used alone in making decisions. The assumptions and condition data used are not 100% accurate or complete. The conclusions drawn from the data should only be used for predicting general trends in the condition of the road system. Similarly such modeling measures only the pavement condition within the roadway. Modeling does not measure or value the multitude of other factors that may influence a decision to expend funds to widen, realign, or do other work on a road. Modeling also cannot predict a variety of other conditions and events, such as extremes of weather. And, basic enhancements beyond pavement repair may be needed to improve function, resource protection, and/or visitor experience.

E. ANNUAL AND MULTIYEAR PROGRAMS

The Park Service is responsible for proposing both a multiyear program and an annual program of projects to the Federal Highway Administration for approval. The multiyear program is developed based on funding levels included in the latest authorization. The annual program is derived from the multiyear program but also reflects changes in project status during the prior year.

The starting point for the development of the multiyear program is the servicewide budget call (servicewide comprehensive call, or SCC) in the fall, with parks reporting their requests to develop projects through the Project Management Information System (PMIS). The NPS Washington Office includes a request for new projects in the servicewide call only every three to four years, and regions may elect to add new projects at that time or not.



Before the Project

After the Investment

The park proposals are winnowed at the regional level, depending on the eligibility of the projects and possible other funding sources, as well as the PRP Program's budget and goals. Several Coordinators use regional teams and DSC staff to review projects; others use the various program criteria and funding targets and make the selection for the region with a less structured process. The rule of thumb for allocating available funding once projects are selected is 65% to construction and 35% to planning, design, contract modification, and management. The NPS Washington Office oversees the process with the Coordinators and finalizes the program for submittal to the Federal Lands Highway staff for review and concurrence. (A more detailed description with timelines is provided in Chapter VI, section A.)

F. IMPROVING PROJECT DESIGN AND CONSTRUCTION

Once the program of projects is set, the job of planning and developing the projects falls to regions and the relevant park units. These units are supported by the regions, the Denver Service Center, and/or FLH divisions, depending on the nature of the project. A number of guidelines and standards are involved in the design of projects, but the overarching direction is provided by the *NPS Park Road and Parkway Standards*, which can be found in Appendix AA.

As part of the continuing effort to enhance the PRP Program, during the early 2000s staff instituted many improvements to ensure timely project completion and better management of the transportation system. Following are some of the highlights of those efforts:

- Development of a standard project agreement and a process for developing and revising it, which includes agency roles and responsibilities (Appendix M).
- Adoption of a process for project development involving NEPA (National Environmental Policy Act) compliance for 3R projects. A model 4R process is also being developed (Appendix K, L, Q, and R).
- Initiation of a uniform project tracking system, which will provide information on critical milestones for each project and enable staff to track the overall progress of the program in meeting defined goals (Appendix F).
- Development of NPS-wide management systems for pavement conditions, bridge conditions, safety management, and congestion management, which will help guide investments and also provide data to track system performance over time. Elements of the pavement and bridge systems have supported programming decisions since the early 2000s.

A focus on continuous improvement is the hallmark of this successful two-agency partnership.

[1] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

[2] Codified in the U.S. Code under Title 23, Highways, Section 204

[3] Transportation Equity Act of 1998

[4] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

CHAPTER II
PROGRAM GOALS AND PERFORMANCE

Chapter II sets the policy context for the Park Roads and Parkways (PRP) Program by establishing the vision, mission, and goals. Objectives and performance measures to accomplish the goals are described, and initial sources of data are identified.

A. VISION AND MISSION

A fundamental purpose of a national park unit[5] is to bring humankind, wildlife, and nature into closer harmony, and this imperative dictates that the quality of the visitor's experience is a primary concern in park planning and management. Full enjoyment of a park visit depends on it being a safe, educational, and leisurely experience — the distinctive, essential, unhurried pace. This experience should provide the public with opportunities to learn about our nation's culture, history, and heritage. These opportunities should help build good citizens and foster friendships with foreign visitors. Parks may also generate economic benefits for adjacent communities, and parks could also contribute to state, regional, and national tourism and economic development.

Consequently, park transportation systems must be designed with extreme care and sensitivity with respect to the terrain, wildlife, resources, and surroundings through which they pass — they are laid lightly on the land. Transportation systems must seek to carry visitors through these great wonders with great respect, civility, and gentility. This has been a fundamental objective of the parks since the creation of the National Park Service (NPS), as noted in Section 1 Title 16 USC, which states that the NPS mission is

> to conserve the scenery and the natural and historic objects and the wild life herein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

1. NPS Transportation Vision

The overall NPS transportation system is made up of many modes of transportation. Roads, trails, and transit systems in the parks should relate to the resources they move through and traverse in a meaningful way. The journey should be an enjoyable and informative experience in itself, while providing visitors with the utmost in visual quality and experience. Long tangents that encourage high speeds — and only fleeting views of scenery — should be avoided. Each transport system's alignment and cross section should respect the terrain and should be designed to be sustainable and blend into the environs. Transport systems should be intuitive and logical in design, consistent with each park's general management

plan, and have integrated and convenient transfer points between modes. Planning should involve surrounding communities to foster systems of mutual interest to serve the public.

An NPS transportation system should be designed to maintain an overall continuing sense of intimacy with the countryside or area through which it passes. Innovative technologies should be explored and adopted in pursuit of this vision, such as alternative fuels and vehicles that minimize air, noise, and water pollution. Associated infrastructure should be designed, constructed, operated, and maintained using approaches that improve efficiency and effectiveness. Transportation systems must be planned and implemented to operate in financially sound and sustainable ways. The National Park Service will pursue sound life-cycle asset management approaches to best manage the infrastructure, to influence capital improvements to the system, and to implement new services.

The NPS multidisciplinary approach that was adopted in the early part of this century to address challenging transportation demands by maintaining existing infrastructure and implementing new services to meet today's and tomorrow's park transportation needs continues to evolve.

2. The NPS Transportation Mission

The National Park Service will preserve and protect resources while providing safe and enjoyable access within the national park system units by using sustainable, appropriate, integrated transportation systems and services.

B. PROGRAM, GOALS, OBJECTIVES, AND MEASURES

In 2005, while preparing to implement new legislation to authorize federal transportation programs, senior staff of both agencies (NPS and FHWA) reaffirmed the vision and revised the corresponding PRP mission, goals, objectives, and measures to be consistent with the vision. These serve as guiding principles and as a means of measuring success — not just of the PRP Program, but of all transportation in the national park system. The periodic review and adoption of goals and performance measures is required by several government-wide directives, which include the following:

- The Government Performance and Results Act of 1993 — This act requires that federally funded agencies develop and implement an accountability system based on performance measurement, including setting goals and objectives and measuring progress toward achieving them. This act seeks to shift the focus of government decision-making and accountability away from activities that are undertaken — such as contract awards or fund allocations — to a focus on the results of those activities, like improvements in pavement condition, safety, or congestion control. Under the act, agencies are to develop multiyear strategic plans, annual performance plans, and annual performance reports.
- Executive Order 13327: Federal Real Property Asset Management, issued in 2004 — This order requires, among other things, that agencies (1) identify and categorize all real property assets, (2) prioritize actions to be taken to improve the operational and financial management of real property, (3) make life-cycle cost estimations, (4) identify and pursue goals, with appropriate deadlines, consistent with the agency's asset management plan, and (5) measure progress against such goals.

As of April 15, 2006, the following set of goals was under review prior to submittal to management of the agencies for adoption as guidance for all transportation investments in national park system units.

1. Transportation Goals

The following three broad goals have been identified to ensure that improvements to transportation systems in the national park system are consistent with the NPS vision and mission:

- To provide high-quality transportation infrastructure and services;
- To deliver efficient and effective transportation infrastructure projects and services; and
- To serve as a leader and innovator in transportation, as well as in cooperating with local, regional, state, federal, and industry partners.

2. Transportation System Objectives and Performance Measures

Three objectives and related measures have been developed for the PRP program — to (1) assess overall transportation system performance, (2) maintain and enhance the quality and safety of the visitor experience, and (3) protect the resource through sound maintenance of the transportation infrastructure. Because most of the NPS transportation infrastructure is a roadway-based system that will remain for the foreseeable future, most of the objectives and measures relate to the NPS road system.

a. Transportation Asset Condition

To improve the overall condition of the NPS transportation system by efficient and effective use of limited resources. Measures would include

- improved roadway pavement condition as measured by the Facility Condition Index (FCI) and the Pavement Condition Rating (PCR) compared to prior year and baseline and measured at the park, region, and servicewide levels
- improved bridge and tunnel conditions as measured by the Facility Condition Index and the National Bridge Inventory Program structure sufficiency rating compared to prior year and baseline and measured at park, region, and servicewide levels

b. Transportation Safety

To provide safe transportation infrastructure and services for visitors and NPS staff, and to reduce accident rates through increased awareness and implementation of accident reduction strategies using reliable accident data. Measures would include

- the number of and severity of accidents (resulting in fatalities, injuries, and/or property damage) on park roads as compared to prior year and baseline, reported for parks with high traffic volumes and at region and servicewide levels
- the percentage of parks with high traffic volumes with Road Safety Audit-based intervention studies completed, recommendations addressed, and post-implementation reports
- the maintenance of a system that accurately and efficiently (without creating undue burden on field staff) collects accident data from the parks and reports accident rates and trends at the park, region, and servicewide levels

c. Visitor Experience

To provide transportation services that are convenient and enjoyable for the visitor while consistent with the NPS mission to protect and preserve the park resources. Measures would include:

- the satisfaction level of park visitors with key factors (available access, safety, minimal congestion, etc.) associated with travel within park units should be (to be determined)
- the loss of public access due to closed or washed-out roads, reduced load bridges, etc. should be minimized

3. Program Management Objectives and Performance Measures

a. To provide a high-quality experience to visitors using the park transportation system. Measures would include

- the number of park units with primary park roads with a Facility Condition Index of (to be determined) or better
- the percentage of visitors using park roads with a Facility Condition Index of (to be determined) or better

b. To reduce the transportation system impacts on park resources. Measures would include

- the percentage of PRP projects that include mitigation of pre-construction conditions (excessive runoff, wildlife kills, etc.)

c. To manage the park transportation system efficiently and effectively, indicators are needed both for condition and program and administrative efficiency. Such measures would include

- the percentage of the park road system (segmented by functional classification) with a

Facility Condition Index of (to be determined) or better, by region and nationally
- the percentage of funds obligated for each fiscal year of total funds available for obligation, by region and nationally
- the delivery costs (i.e., planning, design, and construction supervision) for construction projects (by region and nationally) compared to the historic average of 32% of net construction
- the percentage of PRP projects with current status reports available in a shared project management system.
- the percentage of parks with current data on transportation factors included in the various transportation management systems.

d. To serve as leaders and models for innovation in transportation services. Measures would include

- the number of parks and PRP projects that have been assessed to identify appropriate opportunities to employ new and proven technology to solve a park transportation challenge (e.g., clean fuel vehicles, construction materials, alternative modes, Intelligent Transportation Systems).

e. To build and enhance partnerships in the planning and implementation of transportation services. Measures would include

[Appropriate measure(s) are to be developed.]

f. To recruit, maintain, and retain a workforce of highly motivated and qualified personnel. Measures would include

- the percentage of key employees participating in continuing education, training, and other career-building activities
- the average tenure of key employees

C. PERFORMANCE DATA

By law (23 USC), the PRP Program is required to develop four transportation management systems—pavement conditions, bridge conditions, safety management, and congestion management. The data developed for these systems should provide much of the information needed to assess system performance. The National Park Service also maintains several resource management and data systems and conducts regular visitor surveys, which will also contribute to performance measurement. The management systems are described in more detail in Chapter V, "Planning and Management Systems."

Road deterioration

Transportation bus at Zion National Park

[5]Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

CHAPTER III
THE PARK ROADS AND PARKWAYS PROGRAM AND OTHER FUND SOURCES

The three categories of Park Roads and Parkways Program (PRP Program) funding are described in this chapter along with examples of eligible activities. Other public programs and fund sources, which have been used to supplement PRP projects or fully fund transportation capital projects and services in national park system units,[6] are also described. The final section of the chapter is a table listing the major federal transportation programs, their funding levels, basic eligibility, and matching requirements.

A. THE PRP PROGRAM FUNDING CATEGORIES

The PRP Program is the main source of funding for improvement of transportation infrastructure in national park system units, including the resurfacing, rehabilitation, and reconstruction of public roads, bridges, parking areas, and development and maintenance of NPS-owned alternative transportation systems. For FY 2005 through 2009, the average annual funding is $210 million. The PRP Program is comprised of three primary funding categories, known simply as Categories I, II and III. Appendix D includes a detailed list of eligible and ineligible activities for Category 1. The process for selecting projects is described in Chapter VI: Program Development and Fund Management. (Categories, however, are added, changed, or eliminated as program focus areas change.) The following summarizes eligible activities for the three categories.

1. PRP Program Category I—Road Rehabilitation (3R) and Road Reconstruction/Realignment (4R)

Category I is administered by the seven NPS regional offices,[7] with coordination, funding allocation, and oversight provided by the NPS Washington Office (WASO). Each region is responsible for coordination with other regional programs and with the parks, as well as implementation of the regional PRP Program. Among eligible work items described in appendix D are 13 categories of project support including planning necessary to develop a program of projects; development and maintenance of transportation inventories and management systems; and program/project meetings, partnering, and coordination.

Category I is comprised of two subcategories described below. Although these subcategories share the same names and many of the same characteristics of the categories in the American Association of State Highway and Transportation Officials (AASHTO) highway design guidance and publications, they do differ from the AASHTO definitions.

a. 3R–This "acronym" stands for "resurfacing, restoration, and rehabilitation." This work is

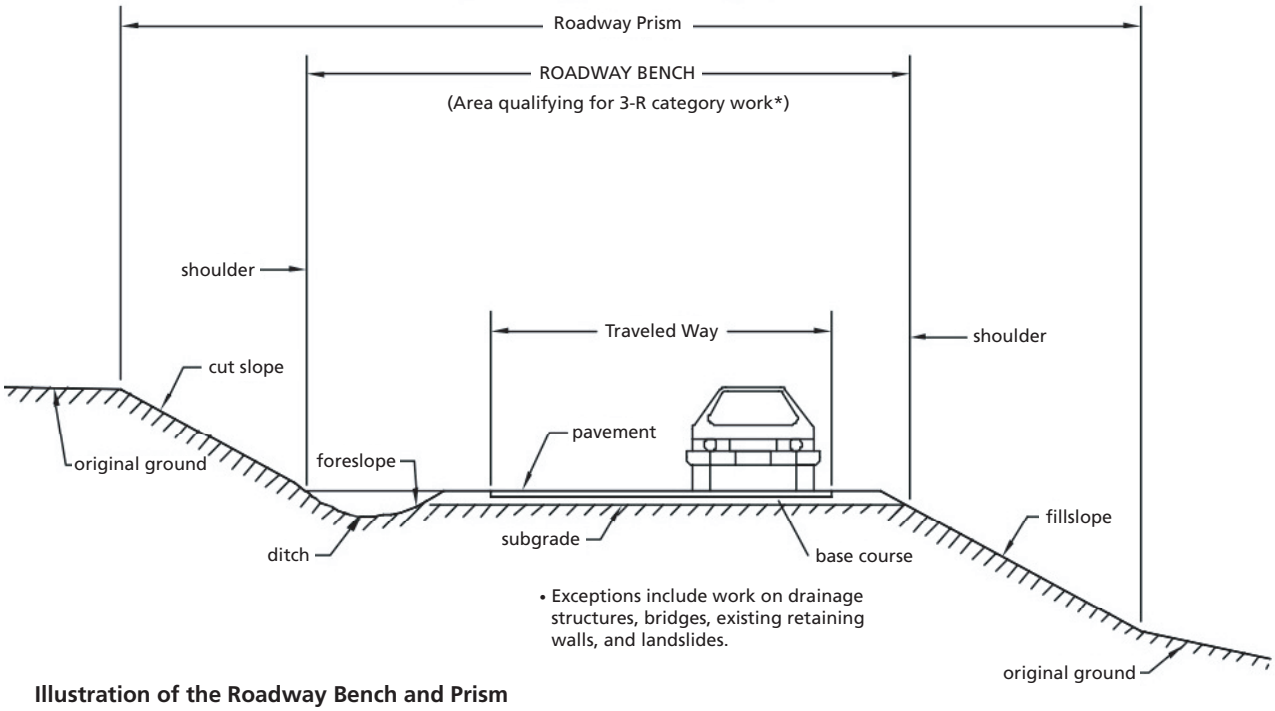


Illustration of the Roadway Bench and Prism

undertaken to extend the service life of roads and enhance safety. Typically, this work occurs entirely in the roadway bench (see illustration above). Occasionally, a 3R project can occur outside the bench for repair work for drainage structures, existing retaining walls, slope failures, and bridges. No more than 5% of project costs should be allocated to work outside the roadway bench without it being designated as 4R work, which has different standards for funding approval.

Bridge work may be done independently of 3R road work if the results of regular bridge inspections indicate the need for improvement and if the work does not exceed $1.5 million.

As part of the 3R program, each NPS region must also develop a pavement preservation program to extend the life of pavement through one or more of these activities - minor rehabilitation, routine maintenance, and preventive maintenance. (Each region will vary in their approach.) The FLH Divisions provide technical support in these activities. There is also general guidance and best practice information on the FHWA's Web site.

The two photos on the right illustrate the results of typical 3R improvements.

Pre 3R (above) and Post 3R (below)

b. 4R - This "acronym" stands for the fourth "R" of Category I work, which is either "reconstruction" or "realignment," depending on who is asked. This work consists of altering the geometry of a n existing roadway, intersection, or bridge. Widening lanes or modifying the horizontal and vertical alignment of the road bench are typical of 4R work. Category 4R projects also include work such as the replacement of large bridges (more than $1.5 million); the relocation of roads; and construction of new roads, bridges, parking areas, or parallel bicycle paths.

These types of projects are typically much more complex and costly than 3R projects and result in more impacts to resources along the road. There are numerous reasons for considering 4R types of improvements for a given segment of roadway. Examples of problems that 4R work may address include the following:

- congestion and inconvenience for the traveling public
- poor lateral (side) clearance between oncoming vehicles or roadside obstructions
- poor sight or passing distances
- substandard alignment (either vertical or horizontal) that creates unsafe driving conditions
- the need for better access to resources by realigning the road
- protecting threatened resources by moving people and vehicles away from sensitive areas

The condition of the road surface (ruts, cracks, potholes, etc.) generally is not a reason for pursuing reconstruction. Most surface defects in a roadway can be addressed using 3R techniques. There may also be alternatives to road reconstruction to address these problems, such as limiting the numbers and/or sizes of vehicles or providing alternate modes of transit. Because the PRP Program has limited funds, the number of roads selected for more costly 4R work must be restricted to only the most critical, high-priority segments. Otherwise, most of the NPS road system will receive even less funding to maintain road conditions. See Chapter VI for more information about investment strategies for 3R and 4R work.

2. PRP Program Category II—Congressionally Mandated Parkways

This category is fairly self-explanatory and consists of the new construction necessary to complete the Foothills Parkway's "missing link" shown to the right, and the multiuse trails on the Natchez Trace Parkway.

Category II is administered by the NPS Washington Office (WASO), with concurrence from the regions. Other parkways that have been completed under this category include the following:

- Baltimore-Washington Parkway
- Cumberland Gap Tunnel Project
- Chickamauga-Chattanooga National Military Park Bypass
- George Washington Memorial Parkway (in Maryland, it is the Clara Barton Parkway)

3. PRP Program Category III—Transportation Management Program

The Transportation Management Program (TMP), formerly the Alternative Transportation Program, is intended to integrate all modes of travel in national park system units, including transit, bicycle, pedestrian, and motor vehicle. The Transportation Management Program also supports transportation planning studies.

This category is administered by the NPS Washington Office, but relies heavily on input and assistance from regions, park units, the NPS Denver Service Center, and the FLH Divisions. Approximately $78.4 million has been allocated to the TMP projects and program since these activities became eligible for PRP funding in 1998. In 2005 a five-year plan was developed by the Park Service projecting a need of more than $185 million in planning and capital costs (excluding operations) for alternative transportation systems through 2011.

Natchez Trace Parkway

With the creation of the Alternative Transportation for Parks and Public Lands Program (ATPPL) as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Category III funding is reserved for special needs that are not being met by ATPPL. The ATPPL provides grant funding on a year-to-year basis, and does not support program development and administration, system level planning, unforeseeable cost changes, emergencies and strategic initiatives. Furthermore, the ATPPL may only fund one phase of a project without any guarantee that other phases of the same project will be awarded future funding. The new ATPPL Program is being jointly administered by the Department of the Interior and the U.S. Department of Transportation and is funded at about $20 million per year. Only projects proposed for federal land management areas (such as national park system units) are eligible to compete for ATPPL funding.

The ATPPL Program is very competitive between the National Park Service, U.S. Forest Service, Bureau of Land Management, and the U.S. Fish and Wildlife Service. In the first year of the program, FY 06, about 72 project proposals were submitted, totaling more than $40 million in planning and capital requests competing for approximately $19.6 million in available funding. In 2007, approximately 100 project proposals were received requesting more than $65 million in planning and capital requests competing for approximately $20 million in available funding.

B. NPS FUNDING SOURCES

Although the PRP Program is the primary source of transportation funding for the National Park Service, PRP projects can be supplemented with funds from other federal, NPS, or private sources. Three key NPS funding sources include the following:

- **Repair / Rehabilitation Program—**Funding for minor repairs to roads and bridges is occasionally provided through the Repair / Rehabilitation Program. Repair / Rehabilitation funds are approved through the NPS operating budget that is appropriated every fiscal year. Repair / Rehabilitation funds are two-year funds that expire at the end of the second fiscal year. There is a $500,000 funding cap per project.

- **NPS Line-Item Construction Program—**Funds to develop new parks and areas within parks are budgeted through the Line-Item Construction program. Funds from this program are appropriated by line item in the yearly Department of the Interior appropriation act. Line-item funds normally do not expire.

- **Federal Lands Recreation Enhancement Act (FLREA) Program—**The FLREA Program (formerly the Fee-Demonstration Program) allows park units to charge fees for access to specific areas/ attractions. The park units are allowed to use a portion of these funds for certain purposes within the park unit, including transportation projects. FLREA funds cannot be transferred from the National Park Service to the Federal Highway Administration; however, an interagency agreement can permit FHWA work to be accomplished with FLREA funds.

The National Park Service has no legal authority to transfer any NPS funds to a state or local government for road projects. Procedures for handling these and other situations involving multiple fund sources are described in Chapter VI, section D.2.

C. OTHER FEDERAL TRANSPORTATION PROGRAMS

1. NPS-Administered Programs

Many NPS staff working on the PRP Program are also responsible for NPS involvement in and implementation of other federal transportation programs. For some regions, these other federal programs represent a substantial amount of regularly anticipated work. These include programs involving emergency relief due to natural and man-made disasters and several "earmark" programs where Congress names specific projects in both the highway (Title 23) and transit (Title 49, Chapter 53) statutes.

These projects are managed by the Regional Coordinators, and funds are tracked through modules of the PTATS (Park Roads and Parkways Transportation Allocation and Tracking System), which is separate from the PRP projects' module. This module is expected to be operational in 2007.

a. Emergency Relief Programs

(1) *Emergency Relief for Federally Owned Roads (ERFO)*—The ERFO program was established in July 1977 and is authorized under Title 23, United States Code (USC) Section 125(e). The goal of the program is to provide funding and engineering services to

restore access to public lands after a natural or man-made disaster or emergency. Park roads and parkways are only one of several categories of roads eligible for ERFO funding. These include forest highways, forest development roads, Indian reservation roads, public lands highways, refuge roads, military installation roads, Corps recreation roads, Bureau of Reclamation roads, and Bureau of Land Management roads.

According the ERFO Manual, the ERFO program is intended to help pay the unusually heavy expenses associated with the repair and reconstruction of federal roads and bridges seriously damaged by a natural disaster over a wide area or catastrophic failure due to an external cause other than normal deterioration or structural deficiency. Restoration to pre-disaster conditions is expected to be the predominate type of repair with ERFO funds.

Federal, tribal, state, and local governments that have the authority to repair or reconstruct federal roads may apply for ERFO funds. The Park Service and other federal land management agencies are considered "applicants" under the ERFO program. Other governmental entities must apply through an applicant. The federal share is 100%.

(2) *Emergency Relief Program*—There is a second emergency repair program, but it is rarely used by the National Park Service. When park unit roads and bridges also are designated as part of the federal aid system, they may be eligible for the Emergency Relief program. Participation in the ER program is largely at the election of the respective state. The federal share for these projects ranges from 80% to 100%.

b. Congressional "Earmarked" Projects

Projects that are "earmarked" or selected by Congress as part of a reauthorization of the highway and transit laws or the annual appropriations process became much more common in the 1990s. Forty-six projects valued at more than $170 million were included as earmarks in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Appropriation acts include earmarks as well. Most of these earmarks require NPS implementation, but others are implemented by states or local governments and directly impact park units due to the proximity of the project to park units.

(1) *Transit (Title 49)*–Although Congress may earmark other transit programs in appropriations bills, earmarks designating NPS projects in SAFETEA-LU are concentrated in the Bus and Bus Facilities program, which includes ferry boats. These projects generally require close coordination with Federal Transit Administration (FTA) regional offices

Mudslide on Beartooth Highway at Yellowstone National Park.

Loading up passengers to see Bryce Canyon National Park.

and the respective transit provider. Eligibility and annual funding are subject to annual appropriations. Information on the program and how to receive funding is found in FTA Circular C9300.1A, Capital Program: Grant Application Instructions[8]. The federal share is generally 80%, depending on the project.

(2) *Highway (Title 23)*—Congress funds many types of transportation projects in national park system units through multiyear authorizations, the most recent of which is SAFETEA-LU. These earmarks are not just roads, but include transit, bikeways, trails, visitor centers, viewsheds, ferry terminals, and other transportation-related projects. Federal Lands Highway Program (FLHP) funds are allowed as a match to any Title 23- or Title 49-funded projects. However, program policy for the PRP Program does not permit use of these funds for the match.

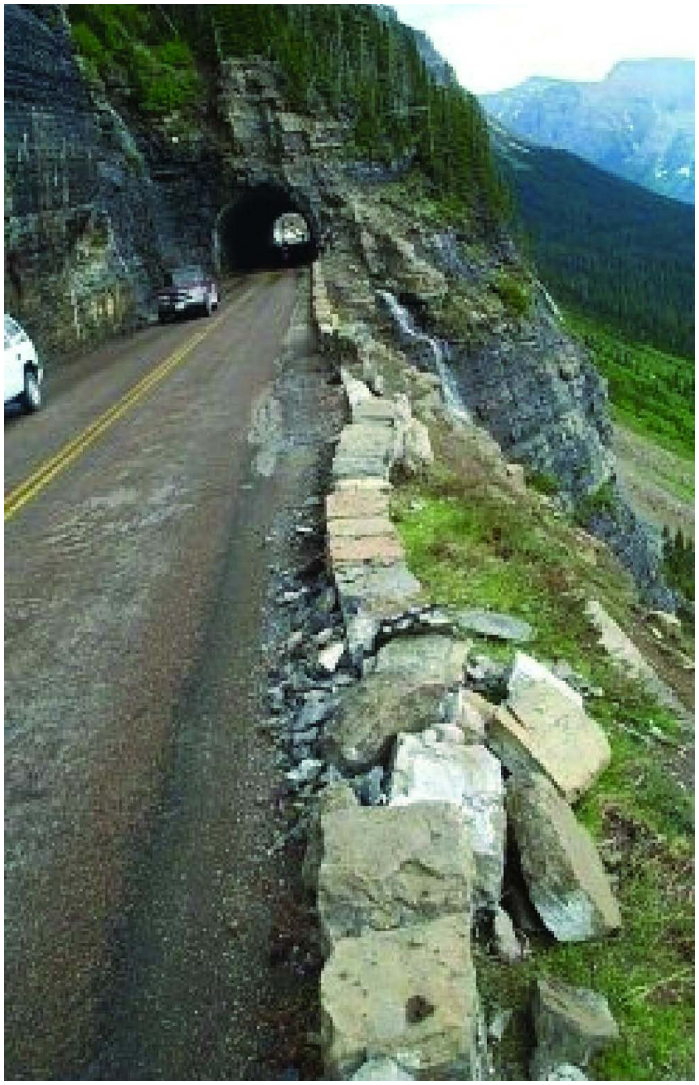
Unless otherwise noted, the following applies to highway earmarks:

- Funding designated for projects in the bill is contract authority and is available until expended.
- Projects require some form of match, which is generally 20%, except in Alaska, Montana, Nevada, North Dakota, Oregon, and South Dakota where it will be some lesser percent depending on the amount of federal land in the state.
- The National Park Service must have an agreement to cover administration and annual funding of these projects because the authorized dollars are part of the state's federal highway funding ceiling and affect the state's programming.
- Certain additional requirements for environmental review also apply.

Following are three examples of substantive earmarks that have been inserted into recent legislation that have considerable impact on program administration.

Section 1940, Going to the Sun Road—Fifty million dollars is allocated at $10 million per fiscal year. There is no match required for this project, and funds must be used to supplement already planned expenditures rather than to substitute for NPS funds. An annual appropriation for this particular project is required, and this did not occur in FY 2005 or 2006.[9]

Section 1702, High Priority Projects—Twenty percent of the designated amount of funds for these projects is available for each of the years FY 2005 to 2009. Funding rules vary depending on the number of the project in the bill. Projects numbered 1-3676 have their own individual funding authority (a.k.a. obligation ceiling), which may be loaned in any year to any other project in Section 1702; contract authority, however, cannot be loaned. Projects with higher numbers are part of one annual funding ceiling per state and compete with each other for the allocated state funds. However, these higher



Glacier National Park

numbered projects are subject to the flexibility permitted under the loan-borrow arrangement described for Section 1934. States can advance funds for these projects until federal funds are available. Guidance is provided at: <http://www.fhwa.dot.gov/programamin/122305att.cfm>.

Section 1934, Transportation Improvements—Only a portion of the project funding is available each fiscal year, as follows: 10% in 2005; 20% in 2006; 25% in 2007 and 2008; and 20% in 2009. Although funds designated for each project must be spent on that project, there is a potential for a "loan-borrow" of funds (both contract and obligation authority) arrangement with certain other categories of projects in the same state, as long as the loaned authority is returned. This arrangement can enable funds to be accumulated more rapidly or in greater amounts than would be possible under the annual limits. The details of how this might work are provided on the FHWA Web site.

Funding exceptions, limitations, match requirements, flexibility to accumulate funds—all pose new challenges to NPS staff in their efforts to program and track funds for these projects. Clearly, state transportation departments and certain transit operators are very important in the process of implementing these projects and should be involved early in the planning.

To help translate these requirements and support the new partnerships that are anticipated, The NPS Washington Office has assigned staff to coordinate all NPS earmarks. Please contact Jim Evans at 202-513-7021. (See "Guidance for SAFETEA-LU Earmarks" in appendix DD.)

2. Other Sources of Funding

NPS projects may also be eligible for other federal and state funding. These funding programs may replace or supplement PRP Program funds.

a. Public Lands Highway Program Discretionary Funds (PLHD)

This program is an element of a larger Public Lands Highway program that provides funding to improve access to federal lands throughout the country. About two-thirds of the Public Lands Highway program funding is for improvements to U.S. Forest Service roads and one-third is for discretionary funding. Traditionally, the discretionary portion is a competitive program for which states are the eligible applicants. However, some years all funds are earmarked by Congress for specific projects. To receive funding, park units submit applications through the respective state department of transportation, which then determines which projects to forward to the Federal Highway Administration for consideration. In the case of an earmark, the park must still apply to the state, which must then forward the application to the state's FHWA Division office. The amount provided, even with an earmark, may be less than requested because of congressional take-downs (funding limitations).

According to the FHWA guidance, "any kind of transportation project eligible for assistance under Title 23, United States Code, that is within, adjacent to, or provides access to" federal lands or facilities is eligible for PLHD funding. Under the provisions of 23 USC 204(b)(1)(A), the PLHD funds are available for transportation planning, research, engineering, and construction of highways, roads,and parkways, and transit facilities within the federal public lands. Pursuant to 23 USC 204(b)(1)(B), the PLHD funds are also available for operation and maintenance of transit facilities located on federal public lands.

Under 23 USC 204(h), eligible projects under the PLHD program may also include the following:

- transportation planning for tourism and recreational travel, including the National Forest Scenic Byways Program, Bureau of Land Management Back Country Byways Program, National Trail System Program, and other similar federal programs that benefit recreational development
- adjacent vehicular parking areas
- interpretive signs
- acquisition of necessary scenic easements and scenic or historic sites
- provision for pedestrians and bicycles
- construction and reconstruction of roadside rest areas, including sanitary and water facilities
- other appropriate public road facilities such as visitor centers as determined by the sec-

retary of the Department of Transportation

- a project to build a replacement of the federally owned road over the Hoover Dam in the Lake Mead National Recreation Area between Nevada and Arizona

Guidance for the program, including the application form, is posted annually on the FHWA Web site under discretionary programs.

b. **Federal Funding to States**

To secure funding from any of the Federal-Aid Highway Programs administered by the states, early involvement of the relevant state department of transportation is needed. Many of these programs are discretionary, and funding is not guaranteed. To secure these funds, an application must be prepared and submitted to the state department of transportation where the project is located, requesting consideration under a given program. These applications may need to be prepared one or more years before the funds are needed. The relevant Federal Lands Highway Division (FLHD) and NPS regional office will evaluate these additional funding sources yearly to maximize funding availability. The FLH Division can provide assistance in coordinating applications to the states for these funds. It is important to point out that under SAFETEA-LU, section 132 of Title 23 was revised to enable states to transfer these federal-aid highway and federal transit funds directly to federal agencies, such as the National Park Service. When the park is in a metropolitan area,[10] the project must be coordinated with the metropolitan planning organization and included in their required plans and programs.

Table III.1, at the end of this chapter, summarizes the key project funding opportunities involving federal highway funds, which are administered by states as well as several programs administered at FHWA headquarters. Two of the major transit programs are also identified in the table, including the new ATPPL program. For transit programs other than the ATPPL program, funds go directly to the transit system operator in communities with more than 200,000 in population, but funds? are administered through the state in most areas with smaller populations.

The table does not constitute the complete list of possibilities from the federal highway and transit programs, such as the various planning and research programs that have supported park NPS activities in the past.

c. **Technology Transfer Programs**

The Federal Highway Administration makes funds available (amount varies and is limited) to the FLH Office for experimental technology applications through two sources: (1) a Coordinated Technology Implementation Program (CTIP) and (2) the Technology Deployment and Initiatives Partnership Program (TDIPP).

The Coordinated Technology Implementation Program is a technology deployment and sharing program that provides a forum for identifying, studying, documenting, and transferring technology to the transportation community, specifically related to roads accessing or within federal lands. The National Park Service was not taking part in the Coordinated Technology Implementation Program as of FY 07.

The purpose of the Technology Deployment and Initiatives Partnership Program is to accelerate the adoption of innovative technologies by the transportation community. Proposed studies or technology implementation must meet certain eligibility requirements to participate.

The FLH Office technology program representative is responsible for determining the availability and criteria for funding consideration for both the

A test of Intelligent Transportation Systems at Great Smoky Mountains National Park

Coordinated Technology Implementation and the Technology Deployment and Initiatives Partnership programs. Normally, technology transfer funds must be obligated in the fiscal year they are received. The FLH Division coordination staff can provide information on these programs.

d. State Funding for Highways and Transit

All states have transportation programs that do not involve federal funding. In most states this funding includes a program that provides funds to counties, cities, or towns for assistance with construction of lower-volume roads. Funds for these programs are normally appropriated through the state legislature and administered by the state department of transportation. When a PRP project involves work on a lower-volume road, state-aid funds may be available for such use. The state or local agency will determine if funds are available for such use. Normally, these funds are available until expended, but this varies by state.

All but four states provide funding for various forms of transit. These programs vary substantially state to state and usually involve a significant amount of local funding. However, six states provide all funding for regular transit projects and operations. To learn more about transit funding, including for road improvements to support transit, the American Association of State Highway and Transportation Officials (AASHTO) conducts a survey of all state transit programs every three years and publishes the findings. The informative report is provided at <http://www.transportation.org/?siteid=31&c=downloads>.

NPS road and transit projects also have been supported by other state agencies such as departments of tourism and economic development.

e. Local and Private Funding

Local funding for a project is usually contributed by a city, town, or county highway or transit agency. Such local funding sources are often needed to provide matching funds in lieu of state funds. Normally, these funds are available until expended.

Donations also are accepted from private individuals, foundations, corporations, associations, etc., that may have special interest in a PRP project. Nonprofit organizations such as Chambers of Commerce and land trusts are frequent partners. Unlike the National Park Service, the Federal Highway Administration has no legal authority to accept private funding. If private funds are anticipated to be used on an FHWA-administered project, the National Park Service must be the recipient of these funds.

State, local, and private funding sources may also provide in-kind donations instead of cash. These types of donations may include property, construction materials, equipment, etc., that have value and contribute to the completion of the project. Often, in-kind donations are used as matching shares.

All funds or contributions, regardless of source, may be used only for the purpose intended, and surplus funds remaining will be returned to the original source promptly after completion of the project and project fiscal records are closed. Information on the transfer or exchange of other funding sources to and from the National Park Service or FLH office can be found in Chapter VI. D. Funds Management.

Use of outside funding for projects is generally done in partnership with the contributors, and in these cases there are certain requirements for partnerships that are described in NPS Director's Order #21. To better understand how to use funds besides the PRP Program or other NPS programs, you should consult the Regional FLHP Coordinator or the FLH Division program coordination staff for further information. See list of key personnel Coordinators after the table of contents.

As with the earmarks, PRP Program funds can technically be used as the nonfederal matching funds for projects supported by the programs described in the following table. However, NPS policy limits the use of these funds for such purposes and NPS Washington Office approval depends on the type of project and whether it is included in the "Eligibility Guidelines" provided in appendix D of this guideline.

Table III.1 Federal Transportation Programs				
Funding Program	Authorized Funding Levels	Eligible Projects	Fund Distribution	Matching Requirements
Federal Lands Highway Program for Park Roads and Parkways (PRP Program) *Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION & NATIONAL PARK SERVICE*	2005 $180M 2006 $195M 2007 $210M 2008 $225M 2009 $240M	Funding can be used by the National Park Service and the Federal Highway Administration for the planning, design, construction or reconstruction of designated public roads that provide access to or within national parks, recreation areas, historic areas, and other units of the national park system. Eligibility was covered in section A of this chapter.	Distributed to regions based on agreed-to formula that stresses reducing deferred maintenance. Appropriated NPS funds, material, or services can be used as 15% of project cost for projects funded by the Recreational Trails Program.	The federal share is 100%. PRP Program can be used to match other federal highway (Title 23) or transit (Title 49) funds, although NPS policy does not favor this use.
Public Lands Highways Discretionary (PLHD) Program *Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION*	2005 $88.4M 2006 $95.2M 2007 $95.2M 2008 $98.6M 2009 $102M	Eligible activities include all transportation projects eligible for assistance under Titles 23 and 49 of the United States. Code , as long as it is within, adjacent to, or provides access to federal lands or facilities. Some specific activities include ▪ transportation planning for tourism and recreational travel ▪ pedestrian and bicycle facilities ▪ vehicular parking areas	In the most recent reauthorizations and appropriation bills, Congress has earmarked all funds. Thus, applications are not being accepted for new projects. If a park has received an earmark, it must work with the state department of transportation to submit an application. A listing of earmarked projects is included in the FHWA guidance at: <http://www.fhwa.dot.gov/discretionary/plhcurrsol.htm>	There is no match requirement, but inclusion of other funds is strongly encouraged.
Surface Transportation Program (STP) *Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION*	2005 $6,860M 2006 $6,270M 2007 $6,370M 2008 $6,473M 2009 $6,577M	The largest of the Federal-Aid Highway Programs and a program with broad eligibility, for improvements to all modes of transportation with the exception of railroads.	Funds are distributed to states based on a weighted formula that includes set-asides for metropolitan planning organizations, safety programs and enhancements. Funding is then distributed to projects by state departments of transportation (and by metropolitan planning organizations) in the transportation planning process.	80% federal share with required 20% local/state match. When STP funds are used for Interstate projects, federal share could reach 90%. For certain safety projects or projects that cross park lands, the federal share can reach 100%.
Transportation Enhancements (TE) Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION *See- "A Guide for Seeking Transportation Enhancement Program Funds in Partnership with State and Local Governments" — Appendix V.*	10% of each state's apportioned STP funds are sub-allocated to Transportation Enhancements	Transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's transportation system. Projects range from the restoration of historic transportation facilities, bike and pedestrian facilities, landscaping and scenic beautification, and the mitigation of water pollution from highway runoff. Transportation enhancement activities must relate to surface transportation and be one of those listed in the legislation. All previous Transportation Enhancement eligibilities continue and are restated in SAFETEA-LU. New items are ▪ clarification that historic battlefields are eligible as an activity under the category of acquisition of scenic easements and scenic or historic sites ▪ clarification that the inventory for outdoor advertising is an eligible activity	Funding for the Transportation Enhancements program comes from 10% of available funds from the Surface Transportation Program. States may also have eligibility and selection criteria that set priorities among the categories of eligible activities. Funds are typically allocated to projects through the metropolitan or statewide transportation planning process. NPS-appropriated funds and PRP Program funds can be a contribution towards the local/ state match.	80% federal share with required 20% local/state match. States may apply funds from other federal agencies to the non-federal share of the project, up to 100%. Values of other contributions may also be considered for nonfederal share. "Soft match" (credit for donations of funds, materials, or new right-of-way) is permitted from any project sponsor, whether a private organization or public agency.

Funding Program	Authorized Funding Levels	Eligible Projects	Fund Distribution	Matching Requirements
National Scenic Byways (NSB) Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION	2005 $26.5M 2006 $30M 2007 $35M 2008 $40M 2009 $43.5M	Roads that have outstanding scenic, historic, cultural, natural, recreational, or archeological qualities are designated by the Secretary of Transportation as All-American Roads (AAR) or National Scenic Byways (NSB). The NSB program provides discretionary grants for AAR, NSB, or state-designated scenic byway projects and for pl anning, designing, and developing scenic byway programs.	FHWA priorities for making grant decisions include • projects on AAR- or NSB-designated routes • projects that would make routes eligible for AAR or NSB designation • projects associated with developing state scenic byway programs • activities including the development and implementation of scenic byway marketing programs	100% federal share for federal lands management agencies. As with other programs in Titles 23 and 49, the National Park Service can contribute any required local/state match by using NPS-appropriated funds and PRP Program funds.
Recreational Trails Program (RTP) Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION	2005 $60M 2006 $70M 2007 $75M 2008 $80M 2009 $85M	Funds are available to develop, construct, maintain, and rehabilitate trails and trail facilities. Trail uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. Five percent of these funds can be used for development and dissemination of publications and operation of trail safety and trail environmental protection programs (including non-law enforcement monitoring and patrol programs and trail-related training). State costs for administering the program are not to exceed 7% of the annual apportionment.	Funds are apportioned to the state by formula — 50% equally among all eligible states and 50% in proportion to the amount of off-road recreational fuel use. Funds from other federal programs may be used for the local/state match, including NPS-appropriated funds and PRP Program funding.	80% federal share with required 20% local/state match, subject to sliding scale depending on amount of public land in state. Federal agency project sponsors may provide additional federal share up to 95%. Values of other contributions may also be considered for non-federal share. "Soft match" (credit for donations of funds, materials, services, or new right-of-way) is permitted from any project sponsor, whether a private organization or public agency.
National Historic Covered Bridge Preservation Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION	2005 $0 2006 $10M 2007 $10M 2008 $10M 2009 $10M	Eligible uses of funds are for the rehabilitation or repair of a historic covered bridge or the preservation of such a bridge, including installation of a fire protection system, installation of a system to prevent vandalism or arson, or re-location of a bridge to a preservation site. To the maximum extent practicable, projects under this program must be carried out in the most historically appropriate manner and preserve the structure of the historic covered bridge. The project must also provide for the replacement of wooden components with wooden components unless the use of wood is impracticable for safety reasons.	The Secretary of Transportation will make grants based on applications from states that demonstrate the need for assistance in carrying out one or more eligible historic covered bridge projects. Thus, the National Park Service must work with the state in applying for these funds.	The federal share is 80% and is subject to sliding scale adjustment under 23 USC 120(b) and may be 100% for federal land management agencies.

Funding Program	Authorized Funding Levels	Eligible Projects	Fund Distribution	Matching Requirements
Congestion Mitigation & Air Quality Improvement Program (CMAQ) *Sponsoring Agency: FEDERAL HIGHWAY ADMINISTRATION*	2005 $1,667M 2006 $1,694M 2007 $1,721M 2008 $1,749M 2009 $1,777M	Funds projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide, and small particulate matter (PM-10), which reduce transportation-related emissions. Project examples include public transit investments, nonmotorized transportation projects such as the development of bicycle and pedestrian trails, and freight rail improvements.	Funds distributed to the states according to a formula based on population and severity of pollution. (Includes weighting factors for ozone and CO maintenance areas, CO nonattainment areas, and ozone sub-marginal areas.) Provides for public/private partnerships by allowing states to allocate CMAQ funds to private and nonprofit entities for land, facilities, vehicles, and project development activities. Limits eligibility of partnerships on alternative fuel projects to the incremental vehicle cost over a conventional-fueled vehicle. Funds for this program are allocated by the states in cooperation with metropolitan planning organizations. Projects are identified through the state-wide and applicable MPO transportation planning processes.	80% federal share with required 20% local/state match. For projects that cross park lands, the federal share can reach 100%.
Urbanized Area Formula Transit Grant *Sponsoring Agency: FEDERAL TRANSIT ADMINISTRATION*	2005 $3593.2M 2006 $3466.7M 2007 $3606.2M 2008 $3910.8M 2009 $4160.4M	CAPITAL TRANSIT INVESTMENTS ▪ Land, capital, equipment, vehicles, technology, engineering, design, etc. for developing new or improving mass transit infrastructure and operations.	Allocated to urbanized areas based on formulas. Under SAFETEA-LU several new sub-programs or tiers were established that provide increased funding to certain areas that provide transit service above certain thresholds.	An 80% federal share with 20% local/state match for all most expenses, except:
		TRANSIT OPERATING ASSISTANCE ▪ Costs incurred in operating a transit program, including maintenance.	Provides operating assistance only to urbanized areas with a population of less than 200,000 before the 2000 census. One percent set-aside for transit enhancement projects in urbanized areas of more than 200,000. Capital expenses definition includes preventive maintenance for areas over 200,000 in population.	95%/5% for transit enhancement projects providing bicycle access to mass transit.
		TRANSIT ENHANCEMENTS Projects that enhance mass transit use, such as bus shelters, landscaping, street furniture, historic preservation, etc.	Eligible grant recipients include transit provider or sponsoring agent thereof. National Park Service may acquire these funds as a sub-recipient (through another transit provider). Close cooperation with local transit providers and sponsoring local governments is important.	90% federal share with required 10% local/state match for incremental costs of complying with the Clean Air Act Amendments or Americans with Disabilities Act

Funding Program	Authorized Funding Levels	Eligible Projects	Fund Distribution	Matching Requirements
Alternative Transportation in Parks and Public Lands (ATPPL) *Sponsoring Agency: FEDERAL TRANSIT ADMINISTRATION AND DEPARTMENT OF INTERIOR*	2006 $22M 2007 $23M 2008 $25M 2009 $27M	The new Alternative Transportation in Parks and Public Lands program (also known as Transit in the Parks) provides funds to support public transportation projects, bicycle facilities and trails in parks and public lands. TEA-21 (Title III, Section 3039) authorized a study of transit needs in national park units and related public lands. ▪ Establishes a new Alternative Transportation in Parks and Public Lands Program, administered by the U.S. Department of Transportation in consultation with the Secretary of the Interior. ▪ Provides grants for planning or capital projects in or near any federally owned or managed park, refuge, or recreational area that is open to the general public.	Competitive among federal lands management agencies, however, anyone can nominate a project.	The federal share is 100%.

[6] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

[7] Administration of Category I was delegated by the NPS Washington Office to the regions in the early 2000s.

[8] Found at: <http://www.fta.dot.gov/ 964_ ENG_ HTML.htm>.

[9] As a result, in 2006 Congress authorized the entire $50 million to be available in only three years - FY2007 through 2009, thereby ensuring that the initial $20 million would not be lost for the project.

[10] As defined by the Census Bureau. See: <http://quickfacts.census.gov/qfd/meta/long_metro.htm>.

CHAPTER IV
PARK ROADS AND PARKWAYS PROGRAM ROLES AND RESPONSIBILITIES

This chapter describes the responsibilities of the primary units of the National Park Service (NPS) and the Federal Highway Administration (FHWA) involved in implementing the Park Roads and Parkways (PRP) Program. The potential roles of public and private sector partners also are indicated.

A. INTERAGENCY AGREEMENT

For the two agencies to effectively administer the PRP Program over time, good communication and a clear understanding of roles and responsibilities of each organization are required. This need for clarity was recognized and addressed in the Interagency Agreement of 1983 (Agreement). The Agreement responds to the legislative directives of the 1982 statute that created the PRP Program and sets clear roles for each organization and, in some cases, individual positions.

The Agreement generally gives the National Park Service responsibility for planning, selecting projects, meeting the requirements of the National Environmental Policy Act (NEPA), and landscape architecture of individual projects. Generally, the Federal Highway Administration's role through the Federal Lands Highways Program is to allocate funds; report to Congress on the progress and use of funds; provide technical guidance for the program; and respond to NPS requests for support in contracting, design, and construction management services for projects.

Since the Agreement, Congress has added planning and coordination responsibilities that may affect administration of the program in several ways. Chief among these are the following:

- The U.S. Department of Transportation (delegated to the FLH Office) should develop rules in consultation with the National Park Service to establish transportation procedures that are consistent with state and metropolitan planning requirements for the Federal-Aid Highway Program. The rule was developed as of January 2006.

- Regionally significant projects are to be developed in cooperation with the respective state or metropolitan planning organization (MPO), and included in their plans and transportation improvement programs (TIPs).[11]

- Four management systems—pavement conditions, bridge conditions, safety management, and congestion management—are to be developed jointly.

- The setting of administrative fees is to be agreed to annually.

Potential overlap or conflict between these changes in the law and the division of responsibility are described in the following section B.

In addition to PRP Program responsibilities, over time the program staff has been tasked with responding to most issues involving all federal highway and transit programs. Two such examples are found in the Emergency Relief for Federally Owned Roads (ERFO) program, where park[12] roads and transportation facilities are impacted by natural or other disasters, and in the several types of projects earmarked by Congress. The PRP Program is also affected by related programs and responsibilities of the two agencies, such as clean air planning in nonattainment areas. These matters are not included in detail in this document or in this discussion of PRP Program responsibilities. Also, this section does not provide guidance for the Transportation Management Program (TMP), which is funded by Category III of the PRP Program and a competitive Federal Transit Administration program, except where PRP Program staff also has TMP responsibilities.

B. AGENCY RESPONSIBILITIES

The primary agency responsibilities specified in the 1983 Agreement are summarized below, with any potential changes, overlap, or additions from more recent congressional directives noted in *italics*.

1. General and Shared Responsibilities of the Two Agencies

a. Based upon the Park Service's approved program of projects, jointly agree on a division of program responsibility and provide the supervision for carrying out the projects.
b. Exchange information in connection with any claims or litigation arising as the result of or in connection with a project. When the Park Service is the contracting officer, the Department of Interior Board of Contract Appeals will have jurisdiction. When the Federal Highway Administration is the contracting officer, the U.S. Department of Transportation Contract Appeals Board will have jurisdiction.
c. Conduct interagency program and policy review conferences (now conducted as Servicewide Maintenance Advisory Committee/Federal Lands Highway Program (SMAC-FLHP) meetings.
d. Cooperate in developing information, strategies, and funding needs and preparing reports to Congress and other information.
e. Conduct and execute all construction activities (by either the Park Service or Federal Lands Highways) to minimize impact of the project on park operation.
f. Agree on direct and indirect overhead charges *(Part of this is now set by Congress; see 23 USC 104)*.
g. Approve all contract changes affecting program priorities (refers to NPS director and FHWA administrator).
h. Inform regional director and park superintendent of construction schedule for assigned projects.
i. *Develop four management systems.*
j. *Develop regionally significant projects in cooperation with respective state department of transportation and/or metropolitan planning organization.*
k. Develop information and proposed funding levels to be used by the Department of the Interior, the U.S. Department of Transportation, and the Office of Management and Budget in reauthorization.

2. NPS Responsibilities

a. Maintain and operate park roads and parkways in accordance with adopted NPS standards and pursuant to 23 *United States Code* (USC); develop standards for design and construction, maintenance, and safety in accordance with applicable provisions of 23 USC.
b. Carry out a transportation planning process. *(TEA-21, however, gave the lead on establishing transportation planning procedures to Federal Lands Highways, in consultation with the National Park Service.)*
c. Develop an annual program of projects and submit to the Federal Lands Highways for approval and allocation of funds. Also, submit any changes or modifications to the program for Federal Lands Highways approval.
d. Provide architectural and landscape architectural services for all projects.
e. Approve (refers to NPS regional director) all preliminary and final designs and all contract changes for projects.
f. *Prepare environmental documents and coordinate public notice and involvement in accordance with agency responsibilities under Title 16 USC.*
g. Obtain right-of-way, railroad agreement, and utility adjustments, unless otherwise agreed upon with respect to a particular project.

h. Request (refers to NPS regional director) in writing to appropriate FLH division, any technical assistance on NPS projects being developed.
i. Perform planning and engineering work and administer contracts and prepare plans, specifications, and estimates (PS&Es) for NPS projects.
j. Submit monthly and annual reports, as required by the Federal Highway Administration, on budget execution, obligation, and expenditure for PRP projects.
k. *Collaborate with affected states and metropolitan planning organizations on regionally significant projects as part of the planning and project development process.*

3. FHWA Responsibilities

a. Administer program funds and allocate contract authority and obligation limitation to FLH divisions and National Park Service.
b. Concur with the PRP program of projects and necessary program changes and modifications in the program, as proposed by the National Park Service.
c. Provide technical expertise, for assigned projects, in planning, research, engineering studies, traffic engineering, project development, design and construction, and contract administration, as well as develop PS&Es.
d. Serve as cooperating agency for environmental documents for all projects.
e. *Serve as lead in developing transportation planning procedures in consultation with the National Park Service.*
f. Articulate PRP Program needs to Congress and, working with the Park Service, furnish responses to congressional inquiries and project briefings.
g. *Submit NPS program of projects to respective states and affected metropolitan planning organizations.*
h. Comply with the National Environmental Policy Act (NEPA) in accordance with the requirements of Title 23 USC.

C. NPS SUBUNITS

This subsection and subsequent sections D through G have been updated to show the current responsibilities for the respective organizational units. What is described is often more detailed than what is in the 1983 Agreement and also reflects NPS and FLH administrative decisions on how to manage workflows and increasing responsibilities. Thus, italics are not used to reflect new legislated responsibilities after the 1982 law.

1. NPS Washington Office (WASO)

a. Provide policy and oversight for the PRP Program and other federal highway and transit programs.
b. Determine allocations to each PRP Program category and the 3R/4R investment split (typically at the time of each new authorization of the PRP Program).
c. Use the fund allocation formula to divide Category I funds among the seven regions.
d. Update and recalculate the regional funding allocation formula (approximately every 3 to 4 years).
e. Maintain detailed lists of items eligible for PRP Program funding.
f. Ensure that the *NPS Park Road Standards* document is maintained.
g. Collect and inventory condition, safety, traffic, and other needed data and develop the four management systems in cooperation with the FLH Office.
h. Coordinate transportation rulemaking between the Park Service and the Federal Highway Administration.
i. Prioritize and schedule Category II projects. (This includes approval of NPS and FHWA expenditures for administration, planning, design, construction, and construction engineering.).
j. Maintain NPS director's orders and technical implementation manuals.
k. Consult with Federal Highway Administration on project needs, and provide information and strategies for new FLHP authorizing legislation (every 5 to 6 years).

2. NPS Regions

a. Designate a single PRP Program coordinator position (FLHP Regional Coordinator).
b. Rate, prioritize, and schedule 3R and 4R projects for each region.
c. Confirm eligibility of projects for PRP Program funding.
d. Develop an annual program of projects that efficiently uses all allocated funds on eligible project work.

e. Deliver Category I program within allocated funds and established spending limits on design and administrative costs (including approval of NPS and FHWA expenditures for administration, planning, design, construction, and construction engineering).
f. Work on a day-to-day basis with the respective FLH divisions and NPS Denver Service Center to implement the program and efficiently use funds.
g. Report future-year programs to NPS Washington Office for inclusion in NPS annual budget proposal ("greenbook").
h. Approve all project PS & Es for the region.
i. Administer Category II and III projects (if any exist in the region) in accordance with NPS Washington Office priorities and schedules.
j. Report to the Washington Office annually on previous year program accomplishments.
k. Serve as "brokers" of technical and professional staff assistance for parks.

3. Parks

Park units have on-going responsibility for project initiation, project development, and stewardship of the improved transportation facilities, as follows:

a. Propose projects and planning needs to regions.
b. Incorporate transportation planning in the park planning processes.
c. Participate fully in the planning, environmental, and design processes and recommend DSC and FLH division roles in projects.
d. Recommend project PS&Es for approval by regional directors.
e. Collaborate with states and metropolitan planning organizations on regionally significant projects.
f. Maintain and operate facilities after improvement.
g. Report traffic accident and FMSS (Facility Management Software System) information.
h. Report project completion in Project Management Information System (PMIS).
i. Identify park projects that may trigger conformity requirements in air quality nonattainment and maintenance areas. In such cases, coordinate and collaborate on the conformity modeling that the metropolitan planning organization will assist with on the project.

4. NPS Denver Service Center (DSC)

a. Provide project management services, special studies, planning and compliance, engineering and landscape architectural design, contracting capability for A/E (architectural and/or engineering) design services, and construction contract award and construction administration and inspection services as requested by the NPS Washington Office, regions, or parks.
b. Lead in the development of all revegetation plans and coordination with the Natural Resources Conservation Service.
c. Provide guidance and recommendations for maintaining park design standards in coordination with the Washington Office and regions.
d. In response to requests by the Washington Office or the region/park,
   - Coordinate construction activities and provide technical recommendations and inspections to minimize the impact of the project on park operations.
   - Provide technical expertise in transportation planning (including FLHP or GMP planning), cultural and natural resource studies, landscape architecture and engineering studies, historic landscape architecture, project development, design and construction, project management, support, and contract administration to parks, regions, and the Washington program office.
   - Facilitate and coordinate NPS/FHWA planning procedures and monitor planning projects.
   - Develop park road and planning workflows as well as standard operating procedures.
   - Review and comment on all FHWA or A/E design work and recommend project plans, specifications, and estimates for approval by NPS regional directors.
   - Monitor projects to ensure design sustainability and context-sensitive solutions.
   - Collaborate as needed with states and metropolitan planning organizations on regionally significant projects.
   - Provide architectural services.
   - Serve as NPS agency coordinator for the preparation and review of environmental documents and public notice and involvement, and also review and monitor the completion of all federal and local permits.

- Monitor projects to ensure meeting accessibility guidelines.
- Facilitate value analysis meetings, charette workshops, and produce studies and documents.
- Present and provide documentation to the Development Advisory Board (DAB) meetings.

D. FHWA SUBUNITS

1. FLH Washington Office (Office)

a. Administer program funds and provide oversight.
b. Allocate contract authority and obligation limitation to FLH divisions and the Park Service.
c. Concur with the PRP Program proposed by the Park Service.
d. Cooperate with the Park Service on development of program policies, goals, and performance.
e. Serve as lead in developing planning procedures in consultation with NPS/WASO staff.
f. Articulate PRP Program needs to Congress.
g. Furnish responses to congressional inquiries and project briefings.
h. Provide assistance and support to the Park Service when working with other U.S. Department of Transportation programs and agencies.

2. FLH Divisions

a. Concur in project selections to submit to state transportation departments and metropolitan planning organizations.
b. Submit NPS program of projects to respective states and affected metropolitan planning organizations.
c. Design and administer the construction of PRP projects as requested by the Park Service.
d. Undertake the preparation of project PS&Es, and submit for approval to the NPS regions.
e. Make final acceptance of PRP Program construction projects upon recommendation by park/region.
f. When requested by an NPS region, perform planning and engineering studies, inventories, investigations, reconnaissance surveys, or other studies and submit same to the Park Service for review and concurrence.
g. Review PS&Es for eligibility and conformance with approved PRP Program guidelines.
h. Ensure that proposed changes to PS&Es have the approval of the NPS parks/ regions.
i. Furnish project status reports to the NPS regions and Washington Office as may be required and give NPS staff the opportunity to participate in project inspections, including final inspection.
k. For FHWA work, make all payments to contractors and state and local governments.
l. Maintain and provide current information on key milestones for projects, as requested by the Park Service.

E. SERVICEWIDE MAINTENANCE ADVISORY COMMITTEE—FEDERAL LANDS HIGHWAY PROGRAM SUBCOMMITTEE (SMAC-FLHP)

The SMAC-FLHP is a joint agency working group. It was formed as an advisory subcommittee that makes recommendations to the NPS Servicewide Maintenance Advisory Committee. The SMAC-FLHP group consists of each of the seven NPS Regional FLHP Coordinators, two representatives from the NPS Denver Service Center, the two program leads from the NPS Washington Office, as well as one representative from each of the three FLH divisions and one from the FLH Office. This equals 15 people plus additional staff and others who may have input on specific issues. The SMAC-FLHP subcommittee meets two–four times per year and attempts to rotate meeting sites to cost-effective locations around the continental U.S. Between face-to-face meetings, conference phone calls also are used to discuss issues. The group is typically chaired by one of the NPS Regional FLHP Coordinators, serving approximately a two-year term.

The group's purpose is to serve as a sounding board for both NPS and FHWA management, and to help in developing policy and technical solutions, such as the four management systems required by the 1998 legislation. The SMAC-FLHP subcommittee developed the plan to successfully transition the PRP Program's Category I to regional management in the late 1990s. Subsequently the group worked with the NPS Washington Office (WASO) to develop the Internet-based master budget sheet (MBS), which allowed both agencies to request, approve, and allocate project funds. In 2006 PTATS replaced the master budget sheet.

F. PARTNER AGENCIES

1. State Transportation or Highway Agencies, Usually Known as Departments of Transportation

These departments or agencies work with parks and regions to develop and include regionally significant projects in their transportation improvement program (TIP). The FLH divisions will disseminate the annual program to appropriate states for each region. State transportation departments make many of the decisions surrounding some $35 billion annually (as of FY07) in federal highway funding; a number of these programs can support access to and within parks.

2. Metropolitan Planning Organizations (MPOs)

These organizations work with parks and regions to develop and include regionally significant projects in their plans and transportation improvement program (TIP). The Federal Lands Highways divisions will disseminate the annual program to appropriate states for each region. Where parks are in nonattainment, or are maintenance areas for air quality purposes, metropolitan planning organizations also have a substantial role in developing plans for air quality attainment, and making conformity determinations on projects. These organizations often make decisions on funding projects under a special FHWA program known as CMAQ, or the Congestion, Mitigation, and Air Quality Improvement Program). State transportation departments are expected to provide metropolitan planning organizations with the annual NPS work programs, which they receive from the Federal Highway Administration, normally the FHWA state division office.

3. Local Governments

Although local governments do not have an official, direct role in the decision-making process of the PRP Program, they are involved in the program due to access being linked to roads under the jurisdiction of local governments. For alternative transportation projects, the local governments may serve as the involved transit operator or provide funding for operation and/or capital for such projects. Additionally, some localities are represented in the regional metropolitan planning organization.

4. Surrounding Communities

Surrounding communities are primarily involved in providing access to gateways or promoting visitation, or in some cases actively working to reduce or limit visitation. Their activities may be impacted by some PRP projects.

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[11] The Transportation Efficiency Act for the 21st Century (TEA-21) established the requirement for the Federal Lands Highways and the Park Service to coordinate with state departments of transportation and metropolitan planning organizations on regionally significant projects. SAFETEA-LU included provisions for the planning organizations to incorporate these projects in their plans and transportation improvement programs (TIPs).

[12] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

CHAPTER V
PLANNING AND MANAGEMENT SYSTEMS

The purpose of this chapter is to describe the processes and procedures necessary to identify and plan projects for the multiyear program of projects of the Park Roads and Parkways Program (PRP Program). The subsequent project development process is described in Chapter VI, and appendix K includes a flow chart of key milestones and appendix L shows the related matrix.

As a jointly administered program of the National Park Service (NPS) and Federal Highway Administration (FHWA), planning for PRP Program-funded projects should reflect the applicable decision support systems of both agencies. The following sections summarize key planning requirements and decision tools for each agency as they may relate to the PRP Program.

A. NPS PLANNING REQUIREMENTS FOR PARK UNITS

Planning for facilities of national park system units[13] occurs within a framework of laws, policies, and guidance that starts with the enabling act for the Park Service—the Organic Act of 1916 (16 USC 1), which established the following mission for the Park Service:

> [T]o conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

The mission is the first and last test for the soundness of all transportation plans. Beyond the mission are federal laws that relate to various aspects of facility planning in general, such as: the Antiquities Act of 1906, the Wilderness Act of 1964, the National Environmental Policy Act of 1969, and the National Historic Preservation Act of 1966. For each park unit there is also specific enabling legislation that defines, among other things, the boundaries and purposes of the park unit.

Management policies are designed to implement the relevant body of laws and to carry out the mission. Overall guidance on planning for parks is provided in “Chapter 2, “Park System Planning” of the NPS *Management Policies 2006*, which can be found in Appendix O. Director’s orders provide more specific guidance on the process and procedures for implementing NPS policies.

NPS policy puts the primary decision-making role for park development and maintenance with the park superintendent and the regional director. Working within this framework of laws, policy, and guidance, park units propose projects—including transportation projects—for funding. Park superintendents are responsible for developing policies and strategic plans required for the park unit's facilities and for recommending capital improvement projects. Regional directors must approve projects and plans.

How transportation fits into this planning and decision-making process is evolving, but the place to start is the general management plan, which is required for each park unit.

1. The General Management Plan[14]

Transportation defines many important aspects of the park visitor's experience, from the choice of attractions to see, where to stay, and when and how long to visit. Transportation planning is a process that can be used to improve visitor experience and protect a park unit's natural and cultural resources from possible impacts. Each park unit, area, and trail has unique challenges and goals, which are required under NPS policy to be identified in the park unit's general management plan (management plan or GMP).

The general management plan is the broadest level of NPS planning and the most important. It is shaped by, and must respond to, the Park Service's many laws, policies, and guidance. All other decisions flow from the goals articulated in the management plan, which establishes core park values that are accepted by NPS staff and stakeholders. This management plan holds the vision for the park unit's future and is concerned more with goals than with details. As a conceptual plan, the management plan should clearly define the desired future resource conditions and visitor experiences envisioned for the park unit.

The planning horizon for a management plan is 15 to 20 years and beyond. (The GMP process is parallel to the planning process that is used for national and scenic trails, national historic sites and areas, heritage areas, and wild and scenic rivers.)

General management plans are developed through the efforts of a multidisciplinary team. For park units with significant transportation issues, regional FLHP Coordinators (Coordinators) can help identify transportation experts to be involved in the GMP process and can provide transportation data from management systems and traffic studies developed for the PRP Program.

Transportation considerations for a general management plan include the following:

a. legislation relating to transportation in the park
b. how transportation serves the park's purpose and significance
c. how park resources relate to transportation systems and facilities
d. the role transportation plays in protecting these resources
e. the way transportation systems and facilities reinforce the visitor experience and sense of place envisioned over 15 to 20 years the transportation issues occurring outside the park unit that need to be considered in future planning efforts
f. the types of transportation facilities and services needed to support the vision and significance of the park unit
g. staffing and long-term operational needs to support transportation systems

Preparing a new general management plan or revising an existing one can be a complex process requiring time and dedication of staff representing many disciplines. The time to complete a management plan varies by the size, location, purpose, and other factors of each park unit, generally ranging from two to five years. Limited funding and the availability of park staff to work on plans are also factors that may affect plan completion.

The Park Service's Washington Office (WASO) provides funding from the PRP Program for transportation studies, which can be part of the GMP process or in support of an established management plan. From 2000 to 2005, for example, $250,000 to $1 million was allocated for this type of planning annually, with the average project costing about $40,000.

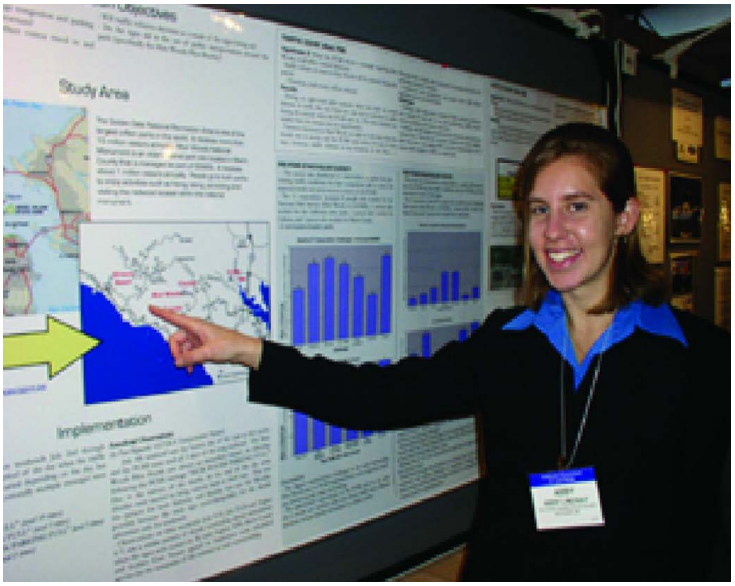
General management plans provide a forum for involving the public and document how the environmental consequences of management decisions are considered. There are legal requirements associated with general management plans as well as agency policy directives that need to be followed. These can be found in several reference materials including the WASO Park Planning and Special Studies Web site and the DSC Workflows Web site.

2. Strategic and Other NPS Plans

General management plans establish a basic philosophy and direction for park management and a framework for future actions. Detailed plans to achieve specific goals, such as transportation plans, tier from the more general planning at the GMP level. These processes are laid out in the previously referenced NPS Management Policies 2006. In summary, the three other elements of NPS planning are as follows:

- **Strategic Plans**—Strategic planning is conducted at three levels: park, program, and servicewide, in conformance with the Government Performance and Results Act of 1993, which also was described in Chapter II. At the park level, the strategic plan must be consistent with the general management plan. The basic goal is to set mid-range priorities for the next three to five years. Consideration of resource conditions, including infrastructure, is a key focus.

- **Implementation Plans**—Implementation planning is needed to develop action plans for accomplishing goals, recommendations, and desired outcomes of the general management plan and strategic plans. Implementation plans usually address actions needed in a shorter time frame than management plans.



- **Annual Performance Plans**—These plans are for the near term—one year—to ensure that goals and outcomes expected are achieved. These plans include budget and staffing and are part of the annual budgeting process.

This is not a neatly ordered process, with one tier of planning progressing to the other. According to The National Park Service, Transportation Planning Guidebook (1999), "components may be missing or be out of sequence, but eventually the cycle will be completed." Plans for specific transportation projects or engineering studies that may apply to a park road or an entire park are examples of implementation plans. These transportation studies are usually authorized through the Coordinators; they can occur at many stages of the planning process.

B. TRANSPORTATION PLANNING AND U. S. DEPARTMENT OF TRANSPORTATION REQUIREMENTS

Legislation authorizing the PRP Program (23 United States Code 204), including the most recent law, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU),[15] requires the National Park Service to follow planning and coordination procedures that are consistent with metropolitan and state planning processes established for the federal highway and transit programs (23 USC 134 and 135, and 49 USC 5313 and 5303, respectively). These procedures must be adopted by rulemaking by the Secretary of Transportation in consultation with the Secretary of the Interior. Although the specifics of the type of plans and programs are generally left to the rulemaking, there are individual requirements for the National Park Service in the law: (1) to prepare a transportation improvement program (program of projects) for the PRP Program resulting from the planning process, (2) to develop regionally significant projects with the appropriate state and metropolitan planning organizations; and (3) to develop four management (information) systems—pavement conditions, bridge conditions, safety management, and congestion management.

As of March 2007, rules and procedures for the PRP Program are under discussion between the two agencies but have not been adopted. What follows is a summary of the basic planning requirements under the relevant highway and transit laws as background for regions and parks.

[1] 1. Transportation Planning Processes and Coordination

The entire federal surface transportation program relies on planning at two levels: the state transportation agency, usually known as a department of transportation (DOT), and the metropolitan planning organization or MPO. The metropolitan planning organization is a special association of local governments and interests that has been required since the mid-1970s to support transportation planning in areas with a population of more than 50,000. There are more than 380 metropolitan planning organizations in the country. Information on their location and activities can be found at <http://www.ampo.org>.

The cornerstone of the federal transportation planning process is the development of a long-range transportation plan to cover a period of at least 20 years. These plans must be adopted by state transportation departments, metropolitan planning organizations, and other recipients of federal transportation funds. State-level plans should reflect statewide goals as well as incorporate consideration of MPO plans. There are specific requirements for public involvement and for consultation with affected groups and organizations. Planning factors are spelled out for each type of plan.

The nature and scope of the long-range transportation plan, however, is subject to interpretation. Some states, for example, have short policy and goals documents, and others have detailed plans with corridors and major projects identified. Long-range transportation plans are to be updated every five years, except in metropolitan areas that are in nonattainment for air quality or designated a maintenance area for air quality where they must be updated at least every four years. SAFETEA-LU requirements specify more use of the World-Wide Web in disseminating planning products and seeking input and the use of visioning techniques and technologies in developing the plan.

The National Park Service does not have a long-range transportation plan at the servicewide level, nor do most parks have such a plan. As described in Chapter II, however, servicewide goals and objectives have been proposed for transportation, which is an important first step in the long-range planning process.[17]

Another important transportation planning requirement is the development of a multiyear budget of capital improvement projects, usually referred to as a program of projects and officially known as the Transportation Improvement Program (TIP). Law requires that the Improvement Program include all modes of transportation and that this program be revised at least every four years, with updates at any time. Both state transportation departments and metropolitan planning organizations develop transportation improvement programs as part of their project selection process.

The PRP Program has a multiyear program of projects, which varies by category. This program is developed from the park unit submissions of projects at the time of the servicewide consolidated call, which is part of the annual budget process. However, the PRP Program is included in the Washington Office call only every three to four years, depending on the funding levels and project backlog from prior calls. Regions can elect to participate in the call or continue to rely on their previously identified priority projects. (See Chapter VI for detailed discussion of the servicewide call and project submission procedures.)

Under the law, the planning process and resulting plans are to receive wide public involvement. Specific groups, such as transportation providers, Indian tribes, bicycle and pedestrian interests, and the disabled, are to be consulted as well as the general public. For the latest requirements under federal transportation law, see <http://www.fhwa.dot.gov/safetealu/factsheets.htm> or see Appendix C of this document for selected sections of the law. For specific guidance on planning and more information on how the state and MPO process will work under the latest authorization, see rules published in FY 2007 at the FHWA Web page, then click on the link to Part 450.

Since 1998, federal transportation law has set more specific requirements to incorporate the plans and proposed programs of the federal land management agencies (sometimes called FLMA), such as the National Park Service, in the state and metropolitan planning programs. These requirements encourage partnerships with states and gateway communities and have resulted in non-NPS financial support for transportation initiatives at a number of park units. To meet these coordination requirements, the FLH divisions submit project information from the approved multiyear PRP Program to the appropriate states and metropolitan planning organizations to ensure that projects will be incorporated in their transportation improvement programs or TIPs. (State transportation improvement programs are known as STIPs, and metropolitan transportation improvement programs are known simply as TIPs.) This is important because federal transportation funds are not to be approved if projects are not in the appropriate state or metropolitan planning organization's transportation improvement program.

The multimodal transportation plans developed at the region or park level also should be coordinated with the appropriate state or metropolitan planning organization as well as other local officials not in metropolitan planning organizations, especially gateway communities. It needs to be stressed that the development of all regionally significant transportation projects, regardless of funding source, is to be coordinated with these same organizations. Recommended procedures for meeting these requirements have not been developed, nor is there yet a definition of a regionally significant project.

Projects are developed through specific project planning procedures of the two agencies and under the National Environmental Policy Act. Relevant references for project planning and development include the following:

- For NPS requirements, Director's Order 12, NPS Management Policies 2006, and Chapter VII of this document.
- For DOT requirements, see CFR Parts 450.200 and 450.300.

In 1997 a "Memorandum of Understanding" was signed by the U.S. Department of the Interior and the U.S. Department of Transportation outlining mechanisms and issues for cooperating on transportation planning and public transportation. A number of joint initiatives followed that agreement, including the U.S. Department of Transportation providing support and advice to the National Park Service in setting up a special program to oversee transit and transportation planning, now known as the Transportation Management Program (TMP).

2. Management Systems

In addition to the plans and programs described previously, four management systems are required and have become important decision support tools for the PRP Program. These systems provide parks and regions with basic condition, performance, and cost information to help set priorities in requesting budgets for park unit proposals. They provide servicewide information to NPS managers concerned with overall performance, which is used in (1) reports to the Office of Management and Budget (OMB) to meet requirements such as OMB Circular A-11, (2) to Congress to show progress in meeting congressional directives, and (3) to help set servicewide policies. It is important to note that the transportation management systems are part of a broader group of information systems for the National Park Service including cultural resource and natural resource management systems.

The four systems are being jointly developed by the two agencies and are in varying stages of implementation. Because of the need for regular updates and maintenance, the management systems will continue to require the support of NPS and FLH staff.

a. Pavement Management System

The FLH Office and the National Park Service have made substantial progress in developing and maintaining a pavement management system for the PRP Program. This system is intended to help identify potential road resurfacing, rehabilitation, and reconstruction projects and to assist in making informed decisions when selecting projects. The pavement management system is based on data from the Road Inventory Program (RIP), which includes condition and inventory information on NPS roads. The pavement management system provides information to support recommendations regarding optimal expenditure of road maintenance funds.

The Road Inventory Program collects data by use of an automated road analyzer, which (1) provides an inventory of maintenance items (pavement type and quantities), point (culverts, etc.), and linear features (ditches, guardrails, etc.), (2) identifies pavement distress, and (3) evaluates the condition of existing park roads. The information provides the National Park Service, at all levels, with the basic information for effective road system planning, management, operations, and maintenance, as well as providing timely, cost-effective, and accurate roadway inventories and pavement surveys of all NPS roads. The information is specifically used as follows:

- as a basis for formula calculations for allocation of funds by region
- to prioritize road maintenance needs by condition assessments
- to project funding requirements for future needs
- to determine and describe specific maintenance items
- as a video log of existing conditions

A true pavement management system (PMS) goes beyond collection and assessment of pavement condition data as is done with RIP. When these data are analyzed in combination with treatment cost information, a PMS can generate

several kinds of sophisticated modeling results. This includes preparing spending strategies to optimize a given road network pavement condition for a set amount of funding or the determination of funding requirements for a desired pavement condition. In FY 2004, a PMS was selected by FHWA in conjunction with the NPS for use in the PRP Program. The software selected is called the Highway Pavement Management Application (HPMA). Implementation of the pavement management system began in FY05 with a pilot in the NPS Northeast Region and a subsequent pilot in the Pacific West Region. However, RIP data was helping to identify needs and informing the regions' priority setting for the multiyear program in FY03. NPS staff expects that pavement management system information increasingly will provide decision-makers with quantified inputs in developing their annual and multi-year program of 3R projects. However, the purpose of such a system is only to provide recommendations to the process; pavement investment decisions must be made using engineering judgment within the broader context of the Park Service's mission and goals.

b. Bridge Management System

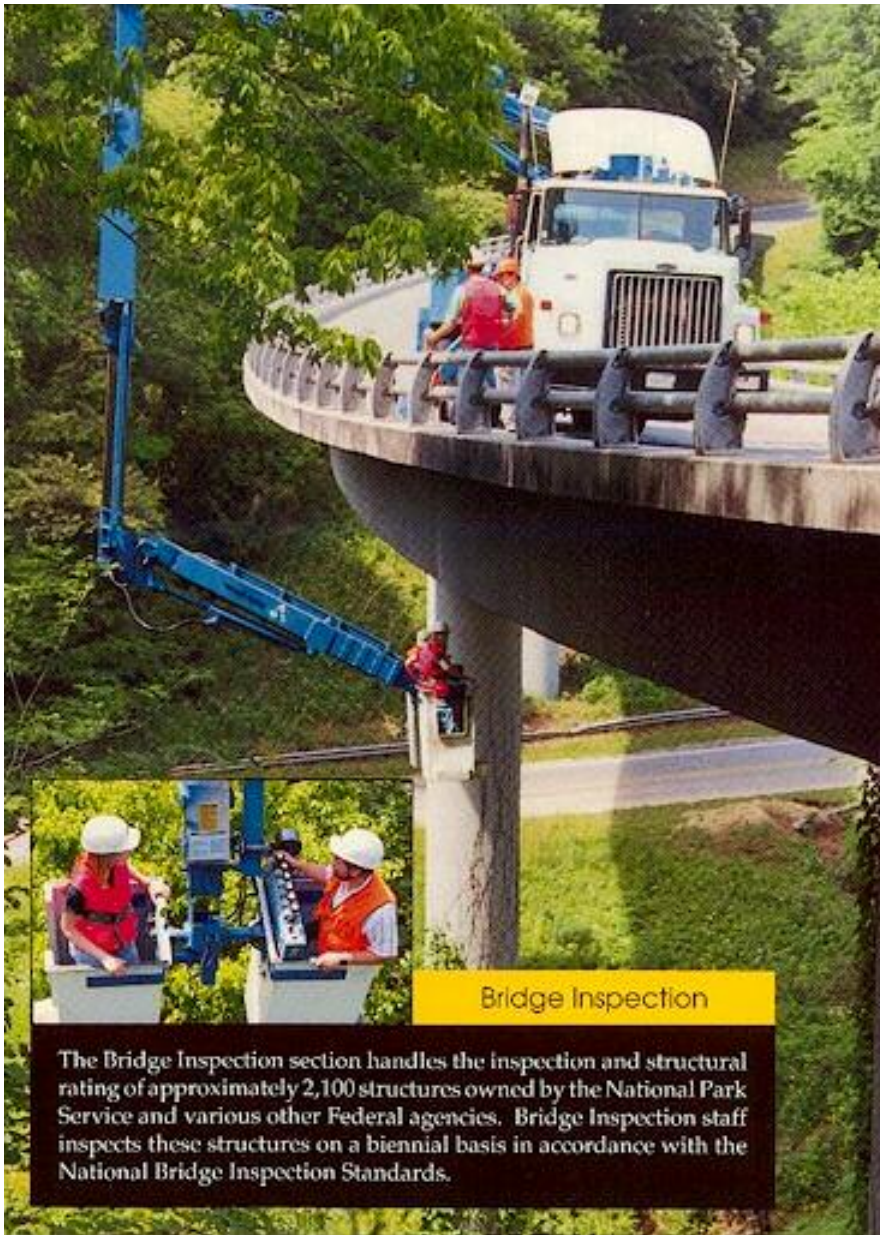
The bridge management system is intended to improve decision-making about the type and priority of bridge investments. It will be based on inspection data now collected as part of the Bridge Inspection Program (BIP), which is required under 23 USC 144. For more than 20 years, NPS staff has collected condition data on all bridge structures (>20 feet in length). Under this inspection program, the following occurs:

- Safety inspections are performed on public bridges and tunnels (vehicular) and nonpublic bridges (vehicular and trail), as defined and required by the National Bridge Inspection Standards (NBIS), to ensure public safety.

- Inspection reports are produced for each structure to summarize condition and corrective action needed.
- NBIS data is provided to FHWA headquarters on an annual basis.

- In-depth field testing is performed as indicated by initial analysis to determine the bridge needs.

The advantage of the bridge management system, when fully developed, is that it will provide



a basis for recommendations for optimal expenditure of funds and will identify critical needs on nationwide and regional levels. The information collected also will provide input for the preparation of rehabilitation plans and specifications and for construction support.

c. Safety Management System

Growing traffic, increasing size of vehicles, and inevitable clashes with wildlife and vehicles are just a few of the factors contributing to increased concerns for visitor and staff safety on park roads. Legislation in 1998 required the Park Service to establish a safety management system as one of the PRP Program's decision-making tools and this system will help to unify required safety activities. This system is being developed with the Federal Lands Highway Office to be compatible with, as well as part of, the DOI-wide incident management analytical reporting system, or IMARS. With this system staff can identify potential safety issues and needs and better understand the effects of road condition and design on safety.

The collection and transmission of accident data to a national database by each park forms the basis of this system. Park rangers and police are key to acquiring the accident data and understanding traffic conditions. Traffic counts are conducted as part of a national count program managed in the NPS Washington Office.

As with other management systems, the safety system is being built in stages, with the parks with the most visitation or vehicle miles of travel and/or accidents being included first. As of FY06, both traffic and accident data were available and being analyzed for some 35 parks. These parks represent 92% of accidents, 55% of visitation, and 69% of park route miles.

d. Congestion Management System

The 1998 legislation also required the development of a congestion management system, which an NPS–FLH team is doing in stages. One important assumption of this effort is that, for leisure travel in a park environment, congestion may involve other factors and user perceptions than those for a commuter whose primary concern is time lost in traffic. In its first stages, NPS and

Buffalo crossing

Visitor crossing

FLH staff are collecting basic traffic data and assessing traffic conditions, as well as visitor experience gauged from annual park surveys. At the same time, NPS Washington Office staff and Western FLH division staff are studying factors that might produce a special level of service standard for parks called the composite level of service. When completed, the study should provide a method to identify priority congestion-related projects affecting NPS and other federal land management agencies. The composite measure should also help state transportation departments that are struggling to preserve scenic byways and make them accessible to a growing number of tourists.

C. OTHER REQUIREMENTS AND PROGRAMS AFFECTING INVESTMENT DECISIONS

Other laws and directives affect the NPS approach to transportation planning and investment. Notable among these are environmental requirements that can overlap with planning (especially at the project level) and requirements for better managing assets and incorporating life-

cycle costing in budgeting processes. NPS environmental requirements are set forth in Director's Order 12 and are discussed in Chapter VII of this document. Key issues in asset management are described below.

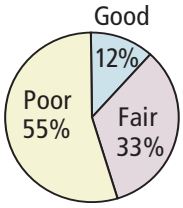
Sound asset management is a priority for both the Park Service and the Federal Highway Administration. During the last decade, the PRP Program investment strategy has shifted toward life-cycle asset management, with most program dollars going to system preservation rather than to new or expanded facilities. In 2004, Executive Order 13327, "Federal Real Property Asset Management," was issued to ensure stewardship of federal property, including infrastructure, buildings, and capital equipment. The Park Service and the Federal Highway Administration, with their different missions and legislative requirements, have each been developing systems and are implementing Executive Order 13327 in different ways.

The asset management system that has emerged for the PRP Program is based on improving asset condition servicewide. Projects proposed for NPS funding must show improvement in the Facility Condition Index, or FCI. This index is the total deferred maintenance divided by the replacement cost value. A lower Facility Condition Index means a better condition of the asset. In 2006 the NPS National Capital Region was the only one of the seven NPS regions that had a Facility Condition Index of less than .08 for their paved roads, which indicates generally good road condition. As shown in table V.1 below, all other regions' FCI ratings were in the fair or poor range.

Even with concentrating funding on 3R improvements, conditions are not expected to improve much by FY09. Although, with current funding levels, roads in the Alaska region also are expected to be in generally good condition. It should be noted that the table only reflects data on road pavement and does not include culverts, walls, embankments, and other features that make up a value that often far exceeds the cost and value of the pavement.

Another means of considering road condition is information developed through the pavement management system (PMS), described previously. A pavement condition rating (PCR) is one important measure from the pavement management system. As indicated in figure V.2, this data also indicates that the immediate future does not look better. Even with a 29% increase in funding from SAFETEA-LU over the prior authorization, the projected road condition in FY09—the end of the current authorization of SAFETEA-LU—will not come close to the NPS goal set in 2002 of 85% of roads in good condition. In fact, PMS data show that road conditions are once again projected to decline due in part to the high rate of inflation in the 2004–2007 period.

Figure V.2–Estimated Road Pavement Conditions FY2009



Although FCI and PCR measures represent different ways of assessing road condition, FHWA analysis shows that results generally can be compared. This relationship is

Table V.1. FCI Levels per NPS Region

Region	Asset Type*	FY 2006 Actual	FY 2007 Planned	FY 2008 Planned	FY 2009 Planned
Alaska	Paved roads and structures	0.13	0.09	0.05	0.01
Intermountain	Paved roads and structures	0.24	0.24	0.23	0.22
Midwest	Paved roads and structures	0.23	0.22	0.21	0.20
National Capital	Paved roads and structures	0.07	0.06	0.06	0.05
Northeast	Paved roads and structures	0.30	0.29	0.28	0.28
Pacific West	Paved roads and structures	0.25	0.24	0.23	0.23
Southeast	Paved roads and structures	0.16	0.16	0.15	0.14
Servicewide	Paved roads and structures	0.21	0.20	0.19	0.19

* Paved roads and structures includes paved roads, paved parking areas, bridges, and tunnels.

Table V.2. PCR and FCI Comparison

PCR Range	Corresponding FCI Range	Qualitative Descriptor
$85 \leq PCR \leq 100$	$0.08 \geq FCI \geq 0$	Good
$60 < PCR < 85$	$0.20 \geq FCI \geq 0.09$	Fair
$PCR \leq 60$	$FCI \geq 0.21$	Poor

shown in table V.2. The projected NPS-wide average Facility Condition Index of 0.19 for 2009 hovers on the border of fair and poor, which is consistent, but not equivalent to the PCR projection.

The NPS Facility Management Software System (FMSS) tracks inventory and condition for the key eight industry standard infrastructure assets applicable to the National Park Service, including roads. By comparison with the other seven infrastructure assets, FMSS analysis shows that most deferred maintenance in the national park system is in roads and bridges.

For more information on asset management in parks or regions, contact the appropriate Regional FLHP Coordinator.

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[13] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

[14] This section is largely excerpted from The National Park Service, Transportation Planning Guidebook (1999). This publication provides an in-depth view, with case examples, of the NPS and US DOT planning requirements and how park units and regions can benefit from these processes. It is available at: <http://www.nps.gov/transportation/alt/nptg.html>. Although it is somewhat out of date due to new laws, it continues to be an excellent resource for considering how and what to do in planning for transportation in park units. Key issues described in the guidebook that were changed by legislation in 2005 are updated in this chapter. The most important one is that transportation plans and improvement programs involving federal transportation dollars are now required to be updated at least every four years.

[15] The two predecessor acts establishing these requirements were the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and the Transportation Equity Act of the 21st Century of 1998 (TEA-21). These acts modify the highway and transit titles of the United States Code. Those sections affecting transportation planning and funding of the PRP Program and other applicable road and transit programs are found in Chapter 1 of Title 23 and Chapter 5300 of Title 49. Uniform planning requirements for both highways and transit were established by ISTEA. To obtain copies of the law, see <http://www.fhwa.dot.gov/legsregs/legislat.html>, or see Appendix C of this guideline for key provisions.

[16] Planning provisions also are being considered by the two departments for the Alternative Transportation in Parks and Public Lands Program, which was established in SAFETEA-LU and codified in 49 USC 5320.

[17] This chapter was written when several key planning issues and procedures were under consideration by the National Park Service and the Federal Highway Administration.

CHAPTER VI
PROGRAM DEVELOPMENT AND FUNDS MANAGEMENT

This chapter describes the requirements for receiving funding from the Federal Highway Trust Fund (the Trust Fund), the decision-making process surrounding the selection of Park Roads and Parkways (PRP) Program projects, and the development and execution of the multiyear and annual programs. Management of the funds, once program and project decisions are made, is explained in section D of this chapter.

A. FUNDS ALLOCATION

1. The Highway Trust Fund

The Trust Fund provides financial support for several transportation improvement programs that serve federally owned lands. These are collectively known as the Federal Lands Highway Program (FLHP). The PRP Program is one of the FLHP programs. For this reason, the PRP Program is authorized through U.S. Department of Transportation (DOT) legislation rather than included in NPS statutes. Many legal requirements for the use of Trust Fund monies are unique and unfamiliar to government budget and finance personnel outside the Department of Transportation. A clear understanding of Trust Fund requirements is necessary for effective operation of the PRP Program. Although the PRP Program is subject to requirements of the Trust Fund, under federal statute (23 United States Code 204(f) and 315), it is a jointly administered program of the secretaries of the Department of the Interior (DOI) and the Department of Transportation, and thus the administration of the program must be consistent with DOI statutes as well.

Title 23 U.S. Code

Sec. 315. Rules, regulations, and recommendations:

. . . Except as provided in sections 204(f) and 205(a) of this title, the Secretary (DOT) is authorized to prescribe and promulgate all needful rules and regulations for the carrying out of the provisions of this title.

Sec. 204(f)
All appropriations for the construction and improvement of each class of Federal lands highways shall be administered in conformity with regulations and agreements jointly approved by the Secretary and the Secretary of the appropriate Federal land managing agency.

Trust Fund revenues come from sales taxes on gasoline, diesel fuel, gasohol, and from taxes related to truck use, including vehicles, tires, and trailers, and heavy vehicle use (trucks 55,000 pounds and over gross vehicle weight).

States and some local governments are reimbursed from the Trust Fund for the federal share (normally 80%) of eligible road, bridge, and other improvement projects on designated roads and transportation corridors as part of the Federal-Aid Highway Program. For FLHP programs, the federal share is 100%.

Operational aspects of the PRP Program are often modified by new Trust Fund authorizations, which occur every four to six years. The description of funding in this chapter is consistent with the most recent authorization, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act—A Legacy for Users, or SAFETEA-LU, which provides funds for FY 2005 through FY 2009. Some revision to this document with subsequent reauthorizations should be expected. (See Appendix C for key sections of the relevant law and the latest provisions.)

2. Contract and Budget Authority

Budget authority is the empowerment by Congress that allows agencies to incur obligations to spend or lend money. This empowerment is generally in the form of an authorization and a separate appropriation.

In the case of the Trust Fund, Congress makes available contract authority for the various programs (including for the Federal Lands Highway Program) through the multi-year authorizations. Contract authority is a form of budget authority that permits obligations to be made in advance of appropriations.

There are several key differences between contract authority and budget authority that are important to understand. These are as follows:

a. Contract authority requires one legislative act (an authorization act); budget authority requires two legislative acts (an authorization act and a yearly appropriations act).

b. Contract authority typically has four years of availability; budget authority usually has one year of availability.

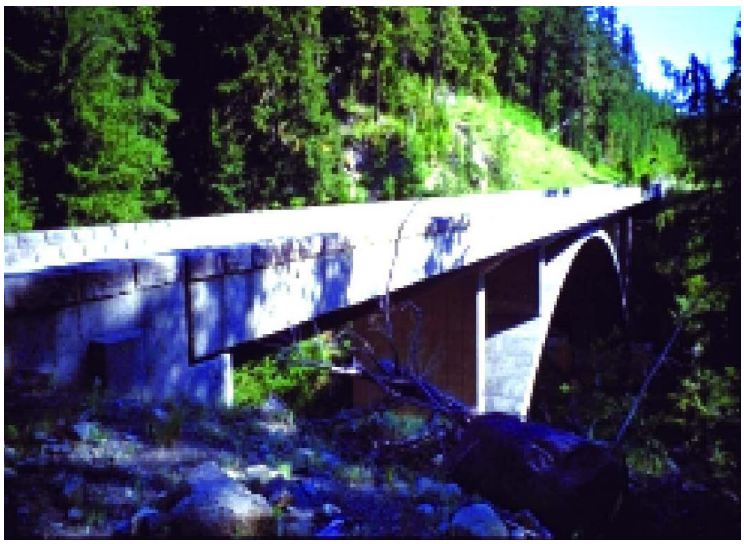
c. Budgetary control is placed on a contract authority program, which is called obligation limitation.

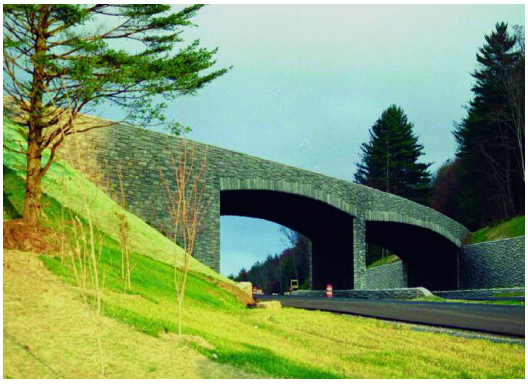
d. Contract authority and obligation limitation are both required to actually expend funds for any authorized program.

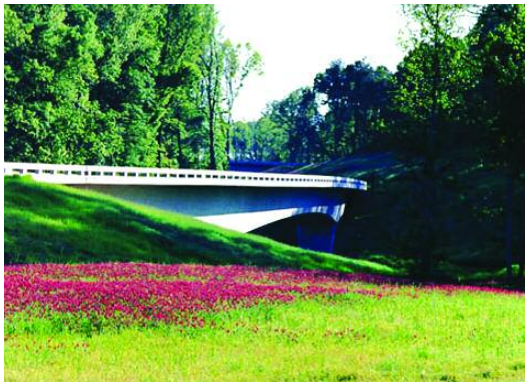
The bottom line is that contract authority does not require a yearly appropriation to start or continue a project in a new fiscal year. However, actual cash from the Treasury cannot be provided for the project until Congress passes an appropriation for the Department of Transportation, which in the case of the Trust Fund establishes an annual obligation (spending) limitation on contract authority. For this reason, the commitment of contract authority is usually limited to a percentage of the total annual authorization at the beginning of each fiscal year if the annual appropriations law has not been enacted.

3. Obligation Limitation

Obligation limitation is a ceiling on the sum of obligations from the Trust Fund within a specified period of time, usually a fiscal year. Obligation ceiling is synonymous with obligation limitation.







Obligation authority is the total annual spending authority and includes the obligation limitation amount plus amounts for programs exempt from limitation. However one looks at it, it is permission to obligate a portion of available contract authority and enables cash payments and reimbursements.

Obligation limits are imposed on the amount of multiyear Trust Fund apportionments and allocations that can be obligated each year to control the highway program expenditures and make spending responsive to current economic and budgetary conditions, Fund revenue forecasts, and the size of the annual deficit. A limitation is placed on the obligation of program funds that can take place within a given fiscal year, regardless of the year in which the funds are authorized.

In a typical fiscal year, the amount of contract authority specified in the authorizing act is more than the obligation limitation imposed by the appropriations act. The FLHP is not allowed to retain this "extra" contract authority. It is transferred to the Federal-Aid Highway Program for use by the states and is no longer available to any of the other FLHP programs. Since 1998, the annual obligation limit has been between 8% and 15% lower than contract authority.

The remaining contract authority is available to the PRP Program and is allocated among the three categories as described in section A.4. It should be noted that any part of this adjusted contract authority that is not expended during that fiscal year is carried over to the next fiscal year. Unused obligation authority cannot be carried over.

To ensure the maximum use of funds, obligation authority is evaluated nationwide for most Trust-Fund-backed programs every July. Any unused authority is redistributed in August to the states that show the ability to use it before the end of the fiscal year. This is called the August Redistribution.[18] Agencies allocated FLHP obligation authority at the beginning of a fiscal year must return any authority that is not expected to be used by the end of the fiscal year. See section D. "Funds Management" for procedures for the August Redistribution.6 Under these circumstances, it is very important to develop realistic obligation plans and to monitor actual obligation rates throughout the year to avoid "lapsing" authority.

4. Available Funding

The annual funding provided for the PRP Program follows a specific route through the two agencies (Federal Highway Administration and the National Park Service). Along the way, the amount is adjusted for a number of congressionally directed purposes, which normally reduce the amount of authority available.[19] For the period of FY05 through FY09, the average annual amount of authorized funding is $210 million.

The following funding process can be expected for any given fiscal year:[20]

a. The FHWA budget office takes the amount authorized for the program and adjusts the amount available by the authorized takedowns and reductions, such as obligation limitations. In some years, Congress also directs funds to be rescinded from the Trust Fund (also known as "rescissions"), and the FHWA budget office will further reduce the PRP Program funds by a prorated share of the amount rescinded.

b. The FHWA budget office allots the resulting amount, plus the prior year's PRP Program unobligated carryover balance, to the FLH Office.

c. The FLH Office advises the NPS Washington Office (WASO) of the amount of funds available for obligation. This NPS office then establishes ceilings for program administration and the three PRP Program categories.

d. Category I funds are distributed based on an allocation formula to NPS regions for road and bridge projects. Categories II and III are distributed by WASO.

e. If loan/borrow arrangements (see section B.4. "Loan/Borrow Agreements") were made between regions in the prior fiscal year, the amounts of those loans normally are repaid to the lending region at this time. Each region's prior year unallocated balance is also returned at this time. The adjusted amounts to be allocated to each region are then posted by WASO on the Park Roads and Parkways Transportation Allocation and Tracking System (PTATS),[21] formerly known as the Master Budget Sheet (MBS). These allocations then become the balances that each NPS FLHP Coordinator (Coordinator) has to carry out their respective program during that fiscal year.

f. The park units, regional offices, Federal Lands Highway division (FLH division or division) offices,[22] and the NPS Denver Service Center (DSC) then enter their initial funding requests in

the PTATS for administration, preliminary engineering, construction engineering, planning, and construction based upon the agreed-upon program of projects for that fiscal year. Typically, Coordinators enter the requested funds in the PTATS for their parks and regional needs (some regions may choose to have large parks with a history of projects enter their own requests, but this is rare). Each Coordinator then reviews the requests and, if acceptable, approves the amounts to be allocated in the PTATS.

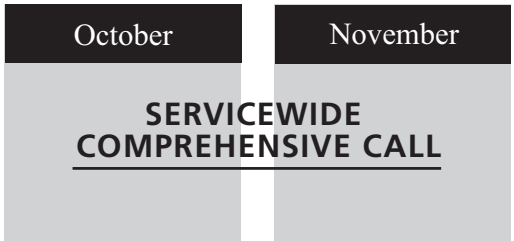
g. Periodically the Federal Lands Highway Office, in consultation with WASO, schedules a funding allocation. The FLH Office downloads a report from the PTATS of all approved funding amounts and allocates those amounts to the FLH divisions. In a separate allocation, the FLH Office transfers the amount of funds that the Park Service will need to WASO. The NPS Washington budget office then downloads the amount of approved funding, account numbers, etc. from the PTATS and issues a funding advice to each regional budget office and the DSC budget office. This funding advice is an authorization to fund projects.

B. PROGRAM DEVELOPMENT

The five-year program of projects is established and managed in several distinct stages. To improve the efficiency and quality of this programming process, the Park Service has developed a number of management information systems. The Project Management Information System (PMIS) is critical to the program development process. It is used to establish an improvement project for funding consideration in all of the agency's construction (capital) programs.

In 2003 the PRP Program staff created the PTATS as an automated budget implementation tool. The PTATS enables the NPS/PRP Program staff to identify projects formulated for design and construction. The PTATS also allows both agencies to request, approve, and allocate funds to projects at all stages. The key difference between PMIS and PTATS is that PMIS is a project need identification system and budget formulation program. Conversely, PTATS is a system for requesting and approving actual funding allocations, the next step after PMIS. Most importantly, PTATS allows FLH personnel access to project information, which is not permitted by PMIS because of the NPS firewall protection. FLH staff are responsible for managing most PRP projects each year, making their access to this information critical to the efficient operation of the PRP Program. Finally, PTATS is linked to the Administrative Financial System (AFS), which provides official obligation information via the NPS Federal Financial System (FFS) for each project account established for expenditure by the NPS. It is important to note that most project funds are managed directly by FHWA and never enter AFS or FFS.

Other systems, such as the four management systems discussed in Chapter V, were developed and maintained jointly by the two agencies. They provide important information at key stages of the selection process described in the following section of this chapter.



1. Call for Projects and Project Selection

Transportation projects to be funded under each category of the PRP Program must be nominated through the NPS servicewide comprehensive call (SCC). Typically, this is a park responsibility with assistance from the Coordinator. Proposed projects must be entered and processed through the PMIS. The servicewide call occurs every fiscal year in the fall and concludes with project selections in the spring. PRP projects may or may not be included in each year's servicewide call. This is because regions will develop multiyear programs based on a single year's call for projects. It may be two–four years between calls for additional projects, depending on the region's ability to provide a stable, long-term program of projects based on the prior call and on available funding. Coordinators need to ensure that there are no gaps in delivery of projects.

Project selection for PRP projects is guided by an NPS method called Choosing by Advantages (CBA). The CBA process is described in Appendix G. This method is a decision-making tool that compares the advantages of alternatives and identifies the one with the greatest advantage in terms of several broad factors that reflect the Park Service's mission and goals:

- protect natural and cultural resources
- improve visitor enjoyment

- provide for visitor and employee safety
- improve the efficiency, reliability, and sustainability of park operations
- provide cost-effective, environmentally responsible, and otherwise beneficial development of the national park system

Projects also must be consistent with the "Eligibility Requirements for Park Roads and Parkways Program Funding," dated October 18, 2005 (see Appendix D). Projects, or the portions of projects that do not fit within these guidelines, should be screened out by Coordinators during the servicewide call process and redirected to the more appropriate funding source, where the work would be eligible. Developing good project proposals for entry into PMIS is critical for parks to compete successfully and develop a credible program of projects that responds to NPS needs. Parks and regions are strongly encouraged to use engineering and transportation studies and management systems information in the preparation of project proposals. Working with park units[23] to ensure that project needs are accurately represented by high-quality submissions in PMIS is one of the most important duties of the Coordinator. A checklist of information needed for a good, competitive PMIS submittal was adopted in FY 2005 and is included as Appendix X.

Methods of project selection may vary depending on the region and type of project. Coordinators can obtain help from the FLH divisions or the Denver Service Center in several areas, including developing recommendations for nominating or prioritizing candidate projects on a technical basis and preparing cost estimates for projects. The parks will nominate and enter the projects in the PMIS, but the region or WASO is responsible for prioritizing and scheduling candidate projects, depending on the type of project (category of funding).

Instructions by WASO for each servicewide call may establish priorities for funding consideration. The FY07–11 call, for example, required that projects included in the multiyear program have pre- and post-construction Facility Condition Index (FCI) information. This had not previously been requested. Regions also were directed to consider the Asset Priority Index (API) in prioritizing projects. General process guidelines for each category include the following:

a. **Category I, Resurfacing, Rehabilitation, Restoration (3R), and Reconstruction Projects** (4R)—Regions call for and select projects on an approximately four-year cycle. CBA factors provide a general means of assessing all projects, but 4R projects must use the full CBA rating system and provide the necessary documents. Projects that reduce the backlog of deferred maintenance and/or improve safety will receive priority. To extend the estimated life of asphalt pavements, regions also must include a pavement preservation program as part of each year's Category I budget.

   About 80% of Category I funding is allocated to 3R projects. The division between 3R and 4R spending is the result of an investment strategy analysis that WASO, with FLH Office assistance, undertakes periodically. (See Chapter III.)

   An example of best practice in project selection is the process used by the Pacific West Region. In this case, the Coordinator assembles a multidisciplinary panel to ensure the best mix of projects for Category I. Representatives from the region, FLH divisions, and parks meet as a committee to select and prioritize these projects. First, the committee reviews, evaluates, and screens each project in terms of CBA factors and determines if the project meets the eligibility requirements of the PRP Program. If a project does not meet these criteria, the project is dropped from further evaluation. The park submitting a project that was dropped will be

advised of the reason the project was not competitive. Selected projects then are prioritized and organized in to the multiyear program of projects. Regardless of the exact process used, once projects are selected they are summarized and forwarded to the NPS regional director for approval.

b. **Category II, Parkway Completion**—WASO is responsible for Category II and issues calls to the regions for projects on a multiyear cycle. Projects to complete congressionally authorized parkways will be selected by WASO based on CBA criteria, regional recommendations, congressional interest, project scheduling, and availability of funds. The parks, regions, Denver Service Center, and FLH divisions will work together to nominate projects and develop and update a multiyear program of these projects for use by WASO for planning, congressional inquiries, and funding legislation.

c. **Category III, Transportation Management Projects—**Also known as alternative transportation system projects (ATP), Category III provides multiyear program support for general management planning, program staff, and transportation group assistance. Category III also provides funding to ensure multiyear continuity for an annually competitive program called the Alternative Transportation in the Parks and Public Lands (ATPPL) Program. This program was established by the SAFETEA-LU, Section 3021, and codified in Title 49 USC Section 5320. The program provides funding for planning or capital projects in or near any federally owned or managed park, refuge, or recreational area that is open to the general public. Projects are selected to (a) relieve traffic congestion and parking shortages; (b) enhance visitor mobility and accessibility; (c) preserve sensitive natural, cultural, and historic resources; (d) provide improved interpretation, education, and visitor information services; (e) reduce pollution; and (f) improve economic development opportunities for gateway communities.

Projects funded under Category III have ranged from alternative transportation planning studies, Intelligent Transportation System projects, transit and watercraft equipment acquisitions, and implementation of a wide range of transit facility improvements.

Before (above) and after (below) photos of Painted Desert pullout area.

As with all servicewide programs, WASO approves projects in PMIS. Next, projects are downloaded into PTATS. WASO exercises review and approval authority, including all project modifications.

2. Program Preparation

a. **Category I**—Based on the results of the project prioritization process, the Coordinator, with cooperation from the respective FLH divisions, prepares a draft multiyear program of Category I projects. Each region determines how construction funds for Category I projects will be programmed based on the available funds approved for the region by the PRP Program allocation

formula (see section A.4.) and other funding sources, including Federal-Aid Highway and/or NPS funding available to supplement the PRP Program. The region's program over the multiyear term should reflect that 80% of the Category I funds are programmed for 3R projects. Projects in the later years of a multiyear program need to adjust construction estimates for inflation.

For planning purposes and based on past experience, it can be assumed that about 60% to 65% of the region's fiscal year allocation should be programmed for construction of the projects approved on a given year's project list.[24] The remaining funds are programmed for planning, design, compliance, contract modifications, contingencies, program administration, and other activities or costs. The goal is to put as much into the construction program as possible.

Project scheduling decisions should be based primarily on each project's regional priority and then adjusted when the design and compliance work can be completed for obligation. Examples of other factors that may alter this order include one project needing to be completed before another could start or several projects of varying priorities in one park being bundled together to improve construction efficiencies. Another factor is that in each year a region will need a mix of project sizes to fully use the anticipated funding levels. To get a range of project sizes, some lower priority projects may need to be advanced. But be aware, it is understandable that park unit staff can be upset if their high-scoring and high regional priority project is delayed to advance a lower priority project.

Once the schedule is determined, projects are formulated in PMIS (assigned an approved net construction funding amount and a planned year of obligation—see section C.2.). Formulated projects are then added to the PTATS database.

"Move-up" (or "swing") projects should also be planned, programmed, and coordinated between both agencies to replace projects that may be delayed by unforeseen circumstances past the proposed fiscal year or to maximize obligations and use surplus funds that may become available at the end of a fiscal year. Move-up projects are projects from a future year of the multiyear program that are advanced ahead of normal schedule. The design of a move-up project must be scheduled to be completed before the fiscal year in which funding for construction has been programmed. This requires commitment of design resources from the 35% of funds reserved for project support costs (nonconstruction).

Changes in the annual program of projects may also occur when the estimate for a previously programmed project exceeds the approved amount. Adjustments can be made within the region's program based on regional priorities, project schedules, and project costs. Alternative programming options also must be considered in years when funding authority is delayed or allocated in small amounts for short periods of time. The latter generally occurs when either the enactment of a federal multiyear authorization is delayed or the annual appropriation is delayed. These are very common occurrences.

At such times, the region has the following several options:

- Increase the program amount for the project if projected needs indicate the increase can be funded within contingency funds available for the current fiscal year;
- Establish a loan/borrow agreement with another region or WASO to fund the increased need;
- Request a change to the project's scope of work to meet the available programmed funds;
- Defer another project to a later fiscal year to make funds available for the increased need; or,
- Defer the project to a later fiscal year when additional funds can be made available for the increased need.

b. **Categories II and III—**Once projects are selected nationwide for Categories II and III, WASO coordinates with the regions to determine the amount needed and the fiscal year the projects can be scheduled. The region, park, Denver Service Center, and FLH divisions work closely to coordinate the scope of projects, project limits, funding needs, and project schedules. WASO works with all interested parties to determine the year funds will be made available to the region

within the available funds determined for each category. (See sections “A. Funds Allocation” and “C. Budget Development.”)

All changes to a project’s funding or timing and significant changes in scope are entered in the PTATS by the Coordinator or by WASO in the case of NPS projects.

3. Program Meetings

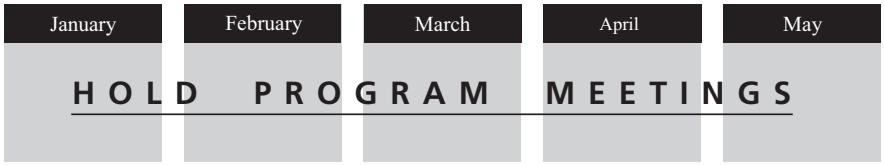
Annual program meetings are held in each NPS region to discuss, coordinate, and update the multiyear program of construction projects. Program meetings should be attended by the Coordinator; DSC representative(s); FLH division program coordinators; and other key division, park, and regional personnel involved with the PRP Program, depending on the range of projects and the units responsible. This meeting needs to accomplish all of the following objectives:

- Inform each agency on the status of current design and construction projects, discuss delivery schedules, and identify problems and potential funding needs.
- Review and program Category I construction projects recommended from the project selection process.
- Coordinate the proposed Category II and III projects in the PRP Program and other program-related projects included in the line-item or project calls.
- Discuss which agency will perform planning, compliance, design, construction, and contract administration for proposed projects.
- Identify move-up projects for potential obligation at the end of each fiscal year.
- Determine strategies for funding various projects, including alternate funding source applications, loan/borrow agreements, and leveraging their funding sources.
- Recommend and justify proposed changes to the current program of projects.
- Review the financial status as of the end of the prior fiscal year (i.e., carryover balance) and determine potential effect on funding as a result of proposed program changes.
- Discuss preliminary engineering (PE) and construction engineering (CE) budgets on individual projects and within the region to ensure cost-effective program and project delivery. (See Chapter VII, “Design and Construction (Project Delivery)” and Chapter II, “Program Goals and Performance.”)
- Identify engineering or other special studies necessary for future program updates.
- Coordinate the submittal of projects for Development Advisory Board (DAB) review.
- Ensure the completion of project agreements (see Appendix M) before requesting engineering funds.
- Discuss future project needs that park units should submit in subsequent budget calls.
- Consider and incorporate proven technology when developing any NPS project. Alternate funding sources may be available for technology applications.

Program meetings should normally be scheduled between January and May, either before or in conjunction with budget meetings. Decisions and recommendations from a program meeting are critical to plan budgets for current and future fiscal years. Program meetings should be documented in meeting minutes, which include a decision register for resolved items and an action register for unresolved items.

After the program meeting, the NPS Regional Coordinator and FLH division staff will resolve any differences with management and jointly prepare the finalized program of projects. Programs will not exceed available funds for each fiscal year, unless prior coordination and approval has been received for loan/borrow arrangements. The multiyear program of projects within a region will include the following:

- priority lists of Category I, II, and III projects and the proposed fiscal year for construction
- a list of projects that are ready before their scheduled construction fiscal year and that could be move-up projects should other projects be delayed or surplus funds become available
- an estimated budget by fiscal year of all projects and major activities (preliminary and construction engineering, construction, etc.) funded by the PRP Program for each year of the multiyear program and within the estimated allocation to the region—This budget may be the same budget described in section “C. Budget Development.”
- recommendations and justifications of proposed program changes to a previously approved program of projects
- documentation that policy direction (project agreements, spending targets, etc.) has been followed for all projects in the proposed fiscal year



- DAB schedule for review of all current and future programmed construction projects subject to this requirement (See Chapter VII for description.)

4. Loan/Borrow Agreements

The intent of the loan/borrow agreement is to provide program flexibility to NPS regions to plan and use available funds and, on a servicewide basis, to maximize the use of available funds within a fiscal year. A loan/borrow agreement allows a region to either lend or borrow funds from another region or the WASO under an agreement that requires the amount to be reimbursed within an agreed upon time period (normally one year). For example, a region may have the design completed for a project, but funds are not sufficient for construction. The region may borrow the needed funds to construct the project under a loan/borrow agreement that requires the region to pay back the lending region in the following fiscal year. Similar arrangements can be made with WASO for loan/borrow of Category II and III funds.

Generally, Coordinators manage the loan/borrow agreement between regions with WASO support and concurrence. The agreement is used as the official document to describe the terms and conditions of the loan/borrow arrangement. Each NPS regional director or designee signs the agreement. Copies of the executed loan/borrow agreement will be distributed to the lending region, borrowing region, WASO, the FLH division, and the FLH Office. A sample loan/borrow agreement appears in Appendix H.

The following requirements apply to the loan/ borrow agreement:

- Funds are designated as either 3R or 4R Category I funds.
- Loan/borrow agreements should be entered into with caution when the current program authorization is set to expire because there is the uncertainty of funding.
- Repayment of the loan/borrow is the first order of business by the FLH Office and WASO upon allotment of PRP Program funds, according to the terms of the agreement, to the lending region at the beginning of a new fiscal year. Both the loan and the repayment will be tracked on the PTATS on the “Regional Ceiling by Category” table. WASO will make entries on the PTATS after receipt of signed agreements.
- The loan/borrow agreement does not imply banking funds (carryover). Loan/borrow agreements are used to maximize obligations for the overall PRP Program.

5. Program Approval

The finalized multiyear program for Category I and a cover memo signed by each NPS regional director will be submitted to the Associate Director for Park Planning, Facilities and Lands with copies to the Denver Service Center and the region’s respective FLH division. For Category I, unless rejected specifically by WASO, the submitted program is considered approved at that time.

6. Program Priority Adjustments

Adjustments in each category of projects may be necessary as a result of funding shortfalls, emergencies, and changes in projects encountered within a fiscal year. Any of these issues may require altering program priorities to advance, add, or delay one or more projects in a fiscal year.

Changes in NPS regional priorities for Category I projects are determined solely by the region, as long as changes are within the regional budget and maximize proposed obligations. Changes to the regional program of projects are coordinated with, and forwarded to, WASO along with required documentation for concurrence and incorporation into Categories II and III. (See section B.3. “Program Preparation.”)

C. BUDGET DEVELOPMENT

The multiyear program is used to identify funding needs for a four- to five-year period. Budget development includes the preparation, review, and approval of budgets from various NPS and FLH offices to establish a program of projects on an annual and multiyear basis. The goal of the program of projects is to maximize the use of available funds and to meet national performance goals and objectives.

1. Budget Elements

An annual budget is prepared for all expenditures planned for a given fiscal year. The budget should be comprehensive and used to program and track all PRP Program expenditures at the parks, regions, Denver Service Center, WASO, and FLH Office and divisions. There are five work activities that account for all spending:

a. **Planning (PL)—**Planning is the process of identifying, planning, and preparing an approved program of transportation projects for design and construction. Planning (PL) includes transportation planning at the park unit and project levels,

engineering and safety studies, transportation planning studies, and the development of the four management systems (safety, pavement condition, bridge condition, safety management, and congestion management).

b. **Project Development (PE)—**This stage is also referred to as preliminary engineering and includes all work necessary to take a project from an approved proposal (within an approved multiyear program of projects) to a completed set of contract documents (plans, specifications, and estimates, or PS&Es) ready for funds obligation and contract solicitation/award. This includes environmental compliance, survey, mapping, subsurface investigation, preliminary and final design, drainage design, erosion control, traffic control, right-of-way and utility coordination, landscaping design, specifications, estimates, consultant contract administration, consultant contracts, construction contract solicitation, bid evaluation, and contract award.

c. **Construction Engineering (CE)**—All work necessary to oversee the construction of the contract from award of contract to the completion of the project is categorized as construction engineering. Contract administration, construction inspection, materials testing, and design assistance during construction necessary to ensure contractor conformance with the construction contract are included in construction engineering. Compliance monitoring associated with an approved environmental work plan (EWP) may also be included. (See Appendix Q.)

d. **Administration (AD)—**This activity is necessary to coordinate the PRP Program in both agencies and at all levels. Administration includes developing and approving the program of projects, managing regional and national funds, and providing necessary program guidance.

e. **Construction (CN)—**Construction is the actual improvement of park transportation infrastructure, typically accomplished through the award of a construction contract. Construction work that is not part of a primary construction contract, such as revegetation performed by park crews and also considered construction, must also be included in annual budget. For the FLH divisions, this work may also include utility relocation costs, PRP Program payments to states for construction work, or other activities. Funds for this latter type of work come directly from the net construction amount available for the project but, because they are not part of a construction contract and they can be accessed before or after a contract is awarded, they must be tracked separately.

PL, CE, and PE activities are generally termed project support and account for most of the funds not allocated to construction of specific projects in a given fiscal year.

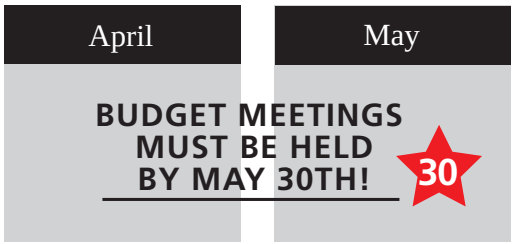
2. Budget Preparation

Project, regional, and national budgets are prepared using the PTATS database. All planned obligations for a given fiscal year must be entered into this database. When projects in the PMIS are regionally approved and formulated for one of the PRP Program fund sources, projects are automatically entered into the PTATS database. If a project is not formulated in PMIS, it will not appear in the PTATS database and funding cannot be allotted to that project.[25]

Once a project has appeared in the PTATS, funds may be requested for any of the five work activities listed in the prior subsection. Parks, the Denver Service Center, and the FLH divisions can make requests for funds at any time during the fiscal year. Regional Coordinators will approve or disapprove requests for Category I projects/funds. (Because Category I is a regionally managed program, the region's approval is the final action required unless WASO formally disapproves the action.) For Category II and III projects, regions first approve all fund requests, and then WASO must approve the requests before funds will be allocated. Coordinators should typically respond to fund requests within one week. In the event that fund

requests are not approved or concurred with, it is incumbent upon project managers to negotiate an acceptable resolution with the Coordinators. Neither Coordinators nor the WASO can change fund requests unilaterally; only the organization that enters the data can adjust the fund requests.

All obligations are summed against the regional allocation for Category I and WASO allocations for Categories II and III. WASO and the regions input these amounts in to PTATS based on available funding. (See section A.4. "Available Funding.") The sum of approved requests cannot exceed the funds allocated.



3. Budget Meetings

By the end of May each year, the NPS region and FLH division staffs will meet to discuss and resolve the proposed regional PRP Program budget. This meeting will normally include the Coordinator and FLH division programs coordination staff. These meetings can easily be conducted by telephone. The budget meeting serves the following purposes.

a. Review information in PTATS—As stated above, PTATS will include all proposed spending on a given project for all entities involved, including the park, region, Denver Service Center, and the FLH division.
b. Incorporate or request any program revision recommendations from the program meetings in the proposed budget.
c. Identify any problems (estimates too high, too low, missing, etc.) with the proposed budgets.
d. Provide recommendations necessary to establish the regional budget within the programmed funds.
e. Identify needed or surplus funds for loan/ borrow arrangements with other regions.
f. Provide budget recommendations for any proposed changes to Category II and III projects.

Budget meetings should be scheduled after or in conjunction with program meetings. Budget/ program meetings should be documented in meeting minutes and include a decision register for resolved items and an action register for unresolved items. Adjustments to PTATS entries will be made by the requesting office.

Budgets cannot exceed available allocations in each fiscal year unless prior coordination and approval has been received for loan/borrow arrangements. The budget for the current year program of projects within a region will include sections detailing the following:

a. All proposed PRP Program activities for Category I by project and fiscal year, including obligations to date and estimates per activity per each year over the life of the project—The PTATS will be used as the budget for the proposed fiscal year.
b. All proposed engineering or other special studies necessary for future program updates.
c. All activities that are not specific to a project or special study (salaries, travel, and other expenses for FLHP Coordinator, etc.) within a region and that are paid from the PRP Program.
d. Proposed loan/borrow agreements to support funds over the regional allotment.
e. All proposed activities for Category II and III projects, including obligations to date and estimates per activity for each year over the life of the project. This information should highlight revisions based on recommendations for proposed program changes.

4. Current Fiscal Year Budget Approval

For any number of reasons, the approval process varies by region and is affected by national issues and legislation. The process, however, will include certain activities as described below.

Once funds are approved (as described above), WASO issues funding advice to regional and DSC budget officers. Project-specific account numbers must first be created and entered into PTATS as provided by regional budget offices before a funding advice can be generated for a project. The account number also must be entered into the NPS Federal Financial System (FFS). This is typically done by the regional budget staff or, for some large parks, by the field budget staff. If the account is not in FFS, the interface with PTATS will not work properly. It is important to keep NPS regional and DSC budget offices well informed regarding any changes in approved funding lev-

els. Budget offices must either establish account numbers or modify the amount available for one that is already established.

The PRP Program engineer at the FLH Office issues fund allocations (by state) to each FLH division commensurate with the approvals for FLH work recorded in the PTATS. The Program and Planning offices in the three FLH divisions then ensure that account numbers are established for charging approved costs within the divisions.

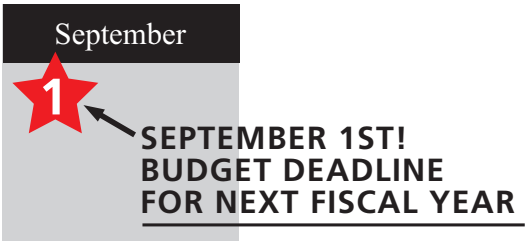
For Categories II and III, the account number mechanics are the same but the final approval resides with WASO. Funds are allocated and account numbers are assigned only after the Coordinator concurs with a funding request and the WASO program manager approves the request.

Because the PTATS is a "real time" system (requests and approvals are instantaneous), and project budgets are rarely static, budget requests and adjustments occur routinely throughout the fiscal year. Coordinators are responsible for ensuring that budgets are within fiscal guidelines and should not approve requests where delivery costs are excessive.

5. Beginning the New Fiscal Year

NPS and FLH project managers should have project-specific budgets prepared by September 1st of the preceding year for the next fiscal year's operations. Ideally, this information can be entered into the PTATS future budget section for the next fiscal year. This should be done with some caution, however. At midnight on September 30th, all information in the next fiscal year of the PTATS rolls into a request for funding for the current fiscal year. If there are insufficient funds at the beginning of the fiscal year to approve all funding requests, these requests will have to be changed. Thus, it is best to keep these project budgets separate from the PTATS until regional fund allocations are established.

As described in section A, financial transactions at the beginning of a fiscal year are often complicated by pending appropriations/ authorizing legislation. Frequently, the Federal Highway Administration cannot issue the majority of funds until the U.S. Department of Transportation appropriation is passed and interpretive guidance has been issued. This often generates a situation where new contract awards cannot be executed and only enough funds to continue basic operations are available. As a result, regional allocations from WASO may be small early in the year and fund approvals will need to be tailored accordingly.



D. FUNDS MANAGEMENT

Funds management involves the timely coordination, monitoring, and management of available funding resources and execution of programmed budgets within a fiscal year. Effective funds management ensures financial accountability, maximum use of available funds, and cost-effective improvements to park unit transportation infrastructure and program credibility. Seven major activities are involved in doing the job well.

1. Point of Obligation

To use funds within a fiscal year, funds must be obligated. Funds can be obligated in two ways: (1) through cash expenditure or (2) by committing the federal government to pay for services rendered, normally through a contract, agreement, or other legal document or transaction. To be credited as an obligation, the accounting systems (FFS, AFS3 and DELPHI) within the agencies must recognize the funds as obligated. Total obligations are equal to funds expended plus funds committed. The unobligated balance is the difference between the funds allocated to a project or activity and total obligations.

For FLHP funds (including the PRP Program and Public Lands Highway Program Discretionary funds), the 1998 Transportation Equity Act for the 21st Century (TEA-21) changed the point of obligation for construction and engineering services contracts from contract award to approval of plans, specifications, and estimates (PS&Es). Award of a contract is not required to obligate funds. (Note: this only applies to contract work, not work performed by agency staff.) This differs from other appropriated funds (budget authority) where contract award is the typical point when funds are obligated by an agency. As of February 2007, however, the NPS budget office did not have the ability to recognize two points of obligation in the financial system; until this is remedied, only the FLH Office recognizes approval of PS&E as fund obligation.

For professional service projects administered by the Federal Highway Administration, the funds are authorized

and obligated when a Statement of Work has been approved by an authorized official. For construction contracts, the funds are obligated when the PS&E for a project is approved. PS&E approval requires that all elements required for construction of the project are in place: (1) funding is available, (2) environmental compliance has been completed (Record of Decision, Finding of No Significant Impact, or categorical exclusion has been executed), (3) necessary right-of-way is acquired (a rare occasion for a PRP project), and (4) permits for construction have been obtained. PS&Es may be approved for obligation conditionally on a case-by-case basis as long as items (1), (2), and (3) have been met.

The project description and conditions and the amount of the authorization is documented and included as part of the project or contract files. The PTATS is updated to reflect these events. For the FLH divisions, the division engineer is the approving official for obligation, but the authority may be delegated. The FLH Office has determined that alternate funding sources supplementing a PRP project may also be obligated under the point of obligation if PRP Program funds are the predominant funding type (greater than 50% of the contract).[26]

For planning, engineering, and construction performed by federal agencies' staff, funds are not subject to the FHWA defined point of obligation and cannot be obligated before the work is performed. Expenditures are obligated as work progresses.

2. Multiple Fund Sources

PRP projects can be supplemented with funds from other NPS, federal, state, local, or even private sources.[27] Transfer and use of these funds trigger a number of requirements that need to be understood for the transactions to be efficient and legal.

Where the work is being administered by the Park Service, the PRP Program funds will be transferred by the FLH Office to the agency; any additional funds to be applied to the project can be administered by establishing appropriate accounts for those sources. In instances where the project is being administered by one of the FLH divisions, any supplementing funds must be provided to the FLH Office. This occurs in one of two ways:

- Preferably, funds may be "transferred" by requesting that the appropriate regional NPS budget office process a transfer request through the Washington budget office to activate a request to the U. S. Treasury Department to make the transfer (form 1151). Generally, this is the way NPS-appropriated fund sources, such as Repair/Rehab, are made available to the FLH division.

- Alternatively, and particularly where NPS funds are obtained through receipts (donations, fees, etc.), use of the funds by a FLH division requires a reimbursable agreement (typically an interagency agreement or "IA"). Funds are obtained by the Federal Highway Administration billing the Park Service. Such agreements are an official government contract and require involvement by a warranted NPS contracting officer. Once the agreement is finalized, the Federal Highway Administration will establish a reimbursable account to which their costs are charged. As the obligations occur, "cash" is obtained from the Park Service via electronic billing (called IPAC or Intergovernmental Payment and Accounting)—a responsibility that is managed between the two agencies' financial offices. This process is complicated, and additional time must be planned to finalize the agreements.

In the case of NPS receipt accounts, this process is required because if the income is transferred, the NPS systems will lose track that they were received, which adversely impacts reporting and distribution of funds. Many receipt funds in the Park Service have legislated formulas that require proportional distribution of income based on the percentage of total income by unit.

In administering multisource-funded projects, it is critical to understand that neither "transfers" nor reimbursable agreements are legally obligating documents. Furthermore, executing either one does not change a fund's original attributes. For example, PRP Program funds are available for obligation for a period of four years, but repair/rehab funds must be obligated within two years. ONPS funds (Operation of the National Park System) must be obligated by September 30th; if they aren't, they expire—even if they are transferred to the Federal Lands Highways.

A reimbursable agreement between two federal agencies only serves to authorize the other to execute the formal obligation on behalf of one of the agencies; in other words, it serves only as a "commitment." Because the NPS financial system (FFS) does not accommodate commitment accounting, it is posted as though it were an obligation, but legally, it is not. The funds are officially obligated only when the receiving agency (Federal Lands Highway) completes their obligating document, which they must do within the same timeframe that would be required of the source agency.

Because funding transfers or exchanges of all types are time-consuming, early planning and coordination are necessary to ensure that the contract awards can be made on the anticipated schedule or are obligated within the programmed fiscal year. Whenever requesting funds from a source other than the PRP Program, it is important to remember to include all the costs associated with the project, including design and construction administration. Finally, funding must be formally authorized (i.e., funds must be transferred or a reimbursable agreement must be completed) by the agency before issuing a solicitation for consultant services or construction.

NPS and DOT funding sources that are relevant to the PRP Program are described in Chapter III. The following information is a summary of the most commonly used sources and their administrative requirements.

None of the following types of transactions are currently tracked in the PTATS, but modules are planned or under development to do so in the future.

a. **NPS Appropriated Funding Sources (Examples: Repair/Rehabilitation and Line-item Programs)—**When NPS-appropriated funding sources are used and the project is administered by the Federal Lands Highways, an administrative fee may be added to the project amount. This fee has varied from 1.5% to 4% of project funds and should be included as a separate line item on any project agreement. Because the authorized use of funds varies by source, you should coordinate with the source agency's budget office to ensure that proper procedures are followed to address FLH administrative costs.

b. **NPS Federal Lands Recreation Enhancement Act (FLREA) Program—**Because they are a receipt fund, FLREA funds can not be transferred among agencies. Therefore, a reimbursable agreement (IA) is required to authorize the FLH division to perform work. The agreement should detail the scope of work, payment schedules, and whether and how much in administrative costs (described under a.), in addition to the project costs, are to be authorized. The latter is typically addressed in boilerplate language.

c. **Federal DOT Funding Sources at 100% Federal Share—**Federal funding sources, such as Emergency Relief for Federally Owned Roads (ERFO) and Public Lands Highway Program Discretionary funding, that do not require a matching share can be transferred between the Park Service and FLH division similar to the standard process for transferring PRP Program funds. Because the fund's attributes remain, any eligibility requirements associated with the fund source must also be met.

d. **Federal DOT Funding Sources Requiring State or Local Matching Share and State or Local Aid—**For projects where the federal agency (such as the Park Service) will receive Federal-Aid Highway and/or state or local matching funds, the transfer of funds to the federal agency must be consistent with 23 USC 132 (see Appendix C). Section 132 was revised in SAFETEA-LU to make direct transfers of funds from states to the Park Service and other federal agencies possible. Many states and local governments have their own administrative requirements that make such transfers difficult regardless of federal law. In these cases, the appropriate means of transfer will be through the Federal Highway Administration because of its long-standing agreements with each state.

   In all cases, an agreement is required to be executed between the Park Service and the state agency (and any other involved agency, such as the Federal Highway Administration) documenting the scope, work responsibilities of each party, budget and schedule for the project, billing or electronic transfer information, and any designated accounting information. (See Jim Evans in the NPS Washington Office [202-513-7021], who is a trained interagency agreement specialist and has developed forms for some of these instances.)

e. **NPS-Appropriated Funds for a State or Local Project—**The Park Service has no legal authority to transfer agency funds to a state, county, or local government except where specific grant authority is authorized. Standing grant authority tends to be specific to certain types of NPS funds (those whose main purpose is to assist states), and this authority is also authorized for most work falling under the auspices of the Alaska National Interest Lands Conservation Act. There are other exceptions, but they should be confirmed with the appropriate NPS regional or Washington Budget Office before execution. Unless specific grant authority exists, NPS-

appropriated funds to be used by state and local governments must be executed via a contract document (typically a cooperative agreement). The implementing organization (vendor) ultimately gets their cash by billing the Park Service as work is completed—similar to an interagency agreement process. Where the funding constitutes only a portion of the project, NPS funds must at least be executed by a contract document even if the other funds (such as FHWA funds) can be transferred directly to the states.

f. **Private Funding Sources—**Policies on accepting private funding vary with each federal agency. The Federal Highway Administration, for example, has no authority to accept funding from private sources. If private funds are considered for use on an FHWA-administered project, arrangements for reimbursement or transfer of those funds should be evaluated on a case-by-case basis.

   It is extremely important to note that if any contract includes government funds—no matter how small—federal contracting requirements (such as Davis-Bacon wage rates) apply, even if the private party (or state/local government) is doing the contracting.

g. **Miscellaneous Sources—**Technology funds that are available through the Federal Highway Administration cannot be transferred to the National Park Service. If the Park Service is responsible for carrying out this type of activity, funding must be obtained via a reimbursable agreement process.

h. **Unused Funds—**All funds, regardless of source, may be used only for the purpose intended, and surplus funds remaining must be returned to the original source promptly after completion of the project and project fiscal records are closed. Unused funds that are formally "transferred" are returned to the source agency by initiating a transfer in reverse; funds that are authorized via a reimbursable agreement are released for other uses by deobligating them in the process of closing the fiscal records.

3. Program Monitoring

It is the responsibility of the FLH Office and WASO to track and monitor the allocations and obligations on a servicewide level, including the Category II and III programs. At the same time, the NPS regions and FLH divisions are required to track and monitor their own obligations and expenditures at the regional level, including the allocations and obligations of each office, project, and work activity. This on-going review includes the following:

a. Review of all current accounts to determine if funds are sufficient for the remainder of the current fiscal year.

b. Review of contract accounts for completed projects to determine if any surplus funds can be released for redistribution and re-obligation.

c. Identification of any new or changed needs.

d. Ensure that necessary project agreements have been prepared to obtain new funding.

e. Ensure that applicable projects have been through the Design Advisory Board (DAB) process.

As modifications are identified, funds are reallocated in PTATS as necessary between the NPS region and FLH division to fund the changes. The Regional Coordinator is responsible for determining the appropriateness of funds requested in excess of authorized amounts. Changes to the regional program exceeding 5% require concurrence by the WASO Program Manager. (See PTATS Operations Manual in Appendix F.)

4. Project Fund Monitoring and Modifications

Many situations will require the unanticipated expenditure of funds within a fiscal year, including high bids, contract modifications, additional design or compliance work, awarding options and schedules on contracted work, or emergency needs. For these reasons, WASO maintains a small contingency fund for the PRP Program at the beginning of the fiscal year. As the year progresses, these funds are committed to projects and eligible PRP Program activities. However, regions are responsible for unanticipated expenses within their allocation of funds for Category I projects.

The home page of the PTATS shows the balance between the Category I regional allocation and the fiscal year's budgeted activities. This balance is the amount of funds available at any given time for the region. Funds may be augmented or depleted based on fiscal year activities. Positive balances that add to the funds are usually the result of low bids, unearned incentive payments to con-

tractors, or contract modifications that reduce contract funding. Negative balances are normally the result of poor budgeting or the unanticipated changes described above. Prior year activity that affects the current year's budget is another reality and must be accounted for in PTATS. Funds that augment the current year's budget are entered as a construction deobligation. Prior year activities that create a current year liability are entered the same way any other obligation is entered.

Generally in July (near the fiscal year end), the region will evaluate the amount remaining in the region's allocation and will reallocate the funds to support "move-up" or "swing" projects and contract modifications through the end of the fiscal year. Funds may also be used for eligible emergency projects at the discretion of the regional director. The following criteria will apply to the management of regional funds.

a. Funds may be used for only those activities eligible for FLHP funding as set out in the "Eligibility Requirements for Park Roads and Parkways Program Funding," dated October 18, 2005 and provided in Appendix D of this document.
b. The region controls any allotment of funds including those established at the FLH divisions. All funds are tracked and monitored by both the NPS region and the FLH division.
c. Funds may not be used for work outside the original scope of the project (see Chapter VII, section B.1. "Project Scoping and Agreement") as determined by the project agreement.
d. For construction and A/E (architectural and/or engineering) contract modifications, NPS regions or the FLH division (or Denver Service Center for projects they administer) will respond within five business days of receipt of a request to avoid delays that may affect a contractor's progress and, ultimately, may result in delay costs. WASO reviews and approves all contract modifications that are estimated to result in a 5% increase in net construction costs over the life of the project.
e. Upon allocation of funds, the region, park, Denver Service Center, and FLH division will ensure that the funds are promptly obligated (within three months or the end of a fiscal year, whichever is shorter).
f. If the funds requested exceed the actual amount needed, remaining funds will be returned as soon as practical to the regional allocation.
g. When a region, park, Denver Service Center, or the FLH division releases funds (engineering or construction) from a completed Category I project, the region determines how these funds are reprogrammed.
h. The bottom line is that if a region cannot use all funds, the funds should be made available to another region under a loan/borrow agreement.

When funds are required to accommodate a necessary, but unanticipated, change in a fiscal year (i.e., an emergency request that may or may not qualify for ERFO [Emergency Relief for Federally Owned Roads] funds), but the regional balance is insufficient to fund the change, the region has the following options to consider:

a. Surplus funds from another Category I project can be reassigned within the FLH division or NPS region for another approved activity.
b. A Category I project can be dropped from the current fiscal year program to fund the proposed change. The dropped project is bumped to the next fiscal year. This may create a ripple effect on each year of the multiyear program, requiring a project of similar amount to be bumped in each fiscal year.
c. Funds can be borrowed from another region or WASO through a loan/borrow arrangement. Because the funds must be paid back (usually the next fiscal year), this creates the same ripple effect as in the item above. However, this approach may benefit the PRP Program as a whole if it helps another region obligate funds that it otherwise would not have.

WASO is responsible for addressing any changes in fund requirements for Category II and III projects (and any special program funds). The criteria for management of these events are similar to those for Category I funds, including the end of fiscal year review and reallocation.

For Category II and III, both the NPS region and FLH division will contact their respective headquarters offices to request any changes. Although these programs are nationally managed, the NPS region or FLH division will typically initiate a change request. WASO will determine whether the request will be funded. If additional funds are needed, the WASO has the following options:

a. The FLH division or NPS region may be able to release funds from a prior year Category II or III contract and request that the FLH Office and/or WASO forward the funds to either the NPS region or FLH division if agreed between the two agencies.
b. Surplus funds from another Category II or III project can be reallocated within the FLH divi-

sion or NPS region if agreed between the two agencies.

c. The funds can be taken from the WASO contingency fund if available and agreed between the two agencies.
d. A project can be dropped from the fiscal year program to make funds available for the proposed change.

Depending on the decision, the NPS region and/or FLH division staff changes the PTATS database for WASO and FLH Office review. If funds are available, an allocation providing the requested funds will be made by the headquarters offices. Fund requests and adjustments may be provided at any time of the year as the need or urgency for funds arises.

5. August Redistribution

Every year in July, the FHWA budget office asks for an evaluation of obligation limitation for all Highway Trust Fund programs. The objective is to redistribute authority to ensure the maximum use of funds, as required by SAFETEA-LU, Section 1102(d), Redistribution of Unused Obligation Authority. Federal agencies allocated FLHP funds (or certain other Title 23 funds) must return any contract authority and obligation limitation that is not expected to be used by the end of the fiscal year. This is referred to as the "August Redistribution."

Each FLH division and NPS regional office must coordinate closely, reexamine all current active accounts, and reevaluate the amount of funds needed (obligations) for the remainder of the current fiscal year. WASO and the FLH Office will work together to reevaluate the needs on a servicewide basis to maximize obligations and return any projected unused contract authority and obligation limitation. For the August Redistribution, the NPS region and FLH division should use the following procedures:

a. The Regional Coordinator works closely with the parks, Denver Service Center, and other NPS offices to evaluate fiscal year needs, determine the projected unobligated balance, and identify projects or activities for possible year-end funding.
b. The FLH division evaluates fiscal year needs, determines the projected unobligated balance, and identifies projects or activities for possible year-end funding.
c. The NPS region and FLH division work together to determine which move-up projects and other activities can or cannot be funded. Unobligated balances will be evaluated to determine how to maximize obligations within the program.
d. The NPS region and FLH division work together to identify any loan/borrow arrangements to either release or obtain more funds to fund possible activities or to maximize the use of any unobligated balance.
e. The NPS region and FLH division update PTATS to determine needed funds or any unobligated balance and submit the information to WASO.

The NPS region should report the following to WASO: (1) total anticipated obligations through the end of the fiscal year for all Category I, II, and III projects; (2) anticipated carryover balance to the next fiscal year for Category I projects; and (3) proposed changes to balance and redistribute funds between the region and FLH division for all Category I, II, and III projects. Carryover balances returned at this time will be returned to the regions without penalty in the next fiscal year.

WASO will summarize all anticipated obligations and carryover balances of all PRP Program funds and submit the information to the FLH Office. All projected unobligated balances from the Park Service and FLH divisions will be reported to the FHWA budget office by the FLH Office at the beginning of August. In some years, there will be an additional redistribution process.

6. Fiscal Year Closure

At the end of the fiscal year, NPS and FLH staff must again coordinate closely to redistribute the remaining unobligated funds and reallocate funds as necessary to balance and obligate the maximum amount of funds possible. The following summarizes the process for fiscal year closure.

a. The NPS region and FLH division work closely and with the parks, Denver Service Center, and other NPS offices to finalize fiscal year needs, determine the unobligated balance, and return any balance to WASO. In many years, several iterations of this activity are necessary. Regions need to have move-up projects available or secure loan/borrow agreements with other regions to minimize any unobligated balance. Coordinators need to work closely with NPS

budget offices to determine unobligated account balances.

b. WASO finalizes the needs for all itemized activities per project for the Washington Office, region, and the park and submits that to the FLH Office.

c. The goal of this process is to obligate all available funds. Any remaining unobligated balance from the Park Service and FLH divisions is returned to the FHWA budget office by the FLH Office.

If a region ends a fiscal year with an unobligated balance, this may cause WASO to apply a penalty to the region in the next fiscal year. Unobligated balances at fiscal year end negatively affect the PRP Program's funding level in the subsequent fiscal year.

7. Reporting Requirements

To report back to FLH Office on the PRP Program, the NPS Washington budget office prepares a Standard Form (SF) 133, Expenditure Report. This form is prepared quarterly for the first three quarters of the fiscal year, then monthly. The FHWA budget office uses the SF-133 to track obligations and expenditures throughout the fiscal year. At the end of the fiscal year, the SF-133 is used to resolve unobligated balances and carryover calculations.

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[18] Typically, the obligation limit applies to the whole highway program funded by the Highway Trust Fund (certain programs are exempted in the law). However, when the Park Service receives special funding through a program known as High Priority Projects, the obligation limit can be specific to a project and in this case does not lapse.

[19] In addition to obligation limitation, there are fund rescissions and other potential adjustments. Since 2000, a mechanism called Revenue Aligned Budget Authority (or RABA) has been in place that can adjust the funding available up or down depending on how much actual revenues from prior years differ from those estimated in the applicable authorizing act. In FY 2007, this resulted in an increase of PRP Program funds of approximately $3 million.

[20] This process was intended to occur once at the beginning of a fiscal year, but more typically, the U.S. Department of Transportation will operate under one or more continuing resolutions each year. Under these circumstances, contract authority and obligation limitation will be available in increments, which will be distributed in the manner described in items a through g.

[21] The PTATS database currently resides on a site administered by the database development contractor. In the future, the database will be accessible through the NPS Intranet. The current location is <www.dtec.com/flhp>. See Appendix F for the PTATS Operating Manual.

[22] There are three divisions: Eastern, Central and Western.

[23] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

[24] Funds for construction, construction management, and post-construction monitoring that may be required are often referred to as "net construction."

[25] The PMIS includes only information for projects with start and stop dates. A number of supporting activities funded through the PRP Program do not have start and stop dates. Examples include many administrative costs and certain program management items such as general planning of management systems. Effective FY06, these costs are directly input into PTATS by FLH Office staff and NPS WASO staff.

[26] As of February 2007, if these supplementary sources are NPS-appropriated funds or revenues, the NPS fiscal system will not recognize the funds as obligated unless there is an executed contract or approved expenditure. See discussion in following section, "Multiple Fund Sources."

[27] It is important to verify with the relevant budget office that the mixing of sources is appropriate, particularly if the use of multiple sources has not previously been documented in proposed scopes of work.

[28] To understand the type of the agreement that is needed and its scope, see Director's Order 20.

CHAPTER VII
DESIGN AND CONSTRUCTION (PROJECT DELIVERY)

The purpose of this chapter is to identify the activities involved in designing and constructing or delivering road and parkway projects—from the initial project scoping through the completion of construction. This chapter describes the key processes, procedures, and responsibilities of the staffs of the NPS and the Federal Highway Administration (FHWA), in particular the operating units known as the Federal Lands Highway (FLH) divisions.

A flow chart of the activities necessary to deliver a project (including environmental reviews) and a matrix showing roles and responsibilities for each milestone are included in Appendix K (page 1, page 2) and Appendix L The flow chart and related matrix describe 3R projects, but are also informative of the 4R process. A separate 4R flow chart is in preparation and will be included in the appendix to this document. An important part of the project development process is the endorsement of a project agreement by the key participants. Appendix M includes a description of a typical project agreement and includes an example and template.

The major stages of the project delivery process and who is responsible are described in the following sections.

A. PROJECT START

Each NPS Regional FLHP Coordinator (Coordinator) holds an annual program meeting to start the project development process each year. Typically, this meeting occurs after regional fund allocations are made. Participants will include FLH division staff, NPS Denver Service Center (DSC) staff, and sometimes representatives from the park units.[29] The group considers the multiyear program of projects and comes to agreement on the relative priority to assign projects for implementation (known as "programming"). The group also identifies who needs to be involved in each project at the outset and what other information is needed due to a project's complexity or specific needs. The next step is for the Coordinator, or the assigned project managers (PM) for the FLH division and the NPS region, to schedule meetings at the relevant parks to review and scope the individual projects scheduled to begin that fiscal year. The NPS project manager may be assigned from the region, the park unit, or the Denver Service Center. The FLH project manager is designated by the Eastern, Central or Western FHL Division, depending on the park unit location.

Under the 1983 agreement between the agencies, the Park Service may choose to do the design work or assign it to Federal Lands Highways. Typically, project design is done by an FLH division, but park units or regions sometimes assign the work within the Park Service. The 1983

agreement also assigned lead responsibility for compliance and landscape architecture to the Park Service, consistent with its overall mission (16 United States Code 1). Best practices for completing environmental compliance documents are referenced in Appendices K, L, Q and R. These practices should be followed regardless of the designation of lead responsibilities.

B. PRELIMINARY ENGINEERING

Preliminary engineering encompasses all the work necessary to take a project from an approved scope to a set of contract documents (plans, specifications, and estimate, or PS&E) ready for advertisement and award. This includes surveying, mapping, subsurface investigation, environmental compliance, acquisition of permits, preliminary and final layout, grading, drainage design, erosion control, traffic control, right-of-way and utility coordination, landscaping design, specifications, estimates, consultant contract administration, bid evaluation, and contract award. NPS project design guidelines are provided in appendix AA. After the contract award the project enters the construction phase.

Reviews are scheduled by the project managers periodically throughout the preliminary engineering process to assess progress of the design work and to ensure resolution of issues that may arise during the development of the PS&E package. The first review covers the preliminary centerline and profile with an approximate design footprint of the project. This review usually occurs when the design is about 15% complete or may occur at the 30% design stage.

The second review, or plan-in-hand review, covers in detail the design criteria used, potential environmental mitigations for each alternative considered, exceptions to standards, and other matters pertinent to the project, including special contract requirements. This review usually occurs when the design is about 30% complete and again for the selected (preferred) alternative at 70% complete.

The final design review occurs when the project is approximately 90% to 95% complete. The review provides all cooperating agencies the opportunity to determine if their respective concerns are adequately addressed in the plans and specifications. The NPS project manager and the park superintendent are asked to review and recommend the final design to the NPS regional director for approval.

1. Project Scoping and Agreement

Staffs of the NPS region and FLH division meet at the park unit for the initial scoping of the project. The purpose of the scoping meeting is to discuss the general project parameters, project location (starting and ending points), persons involved, and potential issues or specific project concerns. The nature and extent of the project determines who will be involved, but everyone who will need to take action to deliver the project should be included: the project managers for both agencies; maintenance and environmental compliance staff, the superintendent, and other park staff; DSC staff; the design consultant; and regional representatives, usually the Coordinator.

The project agreement (PA) describes the specific project requirements (scope), schedule, budget, and duties to be performed by the principal partners. Best practices for preparing project agreements are found in Appendix M. There are three types of project agreements, as follows:

a. **Preliminary Project Agreement (PA)—**This document is prepared immediately after the scoping meeting. The project agreement confirms the project purpose and need and the issues known at

the time of scoping. The project agreement also documents the steps required to start project design and develop a better understanding of what is required. Preliminary project agreements are temporary documents and are not meant to be amended; they are signed by the project team. These preliminary agreements are then uploaded to the Park Roads and Parkways Transportation Allocation and Tracking System (PTATS)[30] to allow initial design funds (up to $35,000) to be obligated to enable project work to begin while a comprehensive project agreement is prepared.

b. **Comprehensive PA—**This document typically is prepared one to six months after the scoping meeting, when the project manager(s) can determine who will be doing what (roles); what will be produced (products and services); when these will occur (project schedule); and how much project planning, design, and construction will cost (project budget). The project scope should reflect issues that are fully developed, with problems and initial solutions identified. The comprehensive project agreement also commits the team to methods of resolving differences by including a decision escalation matrix, which identifies the individuals and timeframes for deciding a course of action.

   The comprehensive project agreement enables all project funds to be authorized, which generally requires a higher level of signatories, such as the NPS regional director and FLH division engineer; the superintendent and project managers usually endorse the agreement, but in some NPS regions and divisions this endorsement authority is delegated. The comprehensive project agreement should be amended when scope, schedule, staffing, or budget change. The various types of amendments are described in detail in the guidance included in Appendix M.

c. **Construction Amendment to the Comprehensive PA—**A comprehensive project agreement prepared early in the design life of a project is often less accurate about events late in the project development process. An amendment of the project agreement to accurately document the construction phase of a project is advisable. The purpose of this amendment is to identify the new roles and responsibilities that will be in place during the construction process as well as to affirm the scope of the project.

2. Project Management

Project management is an essential function in the development and implementation of construction projects. Because the two agencies are co-owners of the PRP Program delivery process, both agencies will assign a project manager to each project.[31] Typically, the NPS project manager is responsible for environmental compliance, landscape architecture, and revegetation of disturbed sites, while the FLH division project manager is responsible for design and construction. However, if the Park Service is delivering the entire project, then all the responsibilities of design and construction are the Park Service's responsibility. The project manager is responsible for: managing the details of the project (scope, schedule, and budget); providing leadership by anticipating problems before they become serious and taking preventive action to mitigate their effects; ensuring effective communication; and ensuring that all the people involved in project delivery are on track, including any A/E (architectural and/or engineering) consultants.

Although project managers are usually not responsible for the actual delivery of a project element, they are responsible for

- developing the project agreements
- scheduling and facilitating design review meetings
- developing scopes of service for A/E contractors
- ensuring that all project development and technical services are in place
- being knowledgeable about general project details and sensitive issues
- managing the project schedule and budget
- managing the project scope
- being knowledgeable about program requirements and ensuring project compliance with the requirements
- understanding and implementing the project direction established by park and regional management
- building relationships with the client
- building relationships within the project team
- acting as an advocate for the project
- obtaining the endorsement of all stakeholders
- ensuring effective communication
- making presentations about project progress if required during regional work sessions

3. Design and Compliance Processes

If the project is to be delivered on schedule, the design process must be synchronized with the environmental compliance process (since the compliance process informs or influences the preferred alternative), revegetation planning, and landscape architectural design work. If one

activity gets significantly ahead or behind schedule, it can adversely affect project decision-making and budget. Refer to the matrix in Appendix L for a description of the major design and compliance activities, their sequence, and their interface with other NPS activities.

To finance work in any stage of a project, the region, park unit, FLH division, and DSC staff agree to costs for their part of the required work. Once the parties agree, funds are assigned (approved) as requested through PTATS. When funds other than NPS-appropriated funds are used, reimbursable agreements are executed between the agencies. These agreements are coordinated with both agencies' staff to ensure that proper documentation and billing occur, but funds are kept separate for accounting purposes. (See Chapter VI for detailed information on how to fund projects.)

C. CONSTRUCTION ENGINEERING

Construction engineering encompasses all work necessary to oversee the construction of the project from the point that the contract is awarded to the completion of construction and project acceptance. This includes such items as contract administration, construction inspection, and materials testing. The FLH division is typically the contracting office and responsible for the construction phase. However, when the Park Service decides to take responsibility for construction, the same basic procedures and requirements described below are followed.

1. Contract Administration

For construction projects, the FLH project manager may remain involved to clarify project design issues, but a contracting officer's technical representative (COTR, or for the Park Service contracting officer's representative or COR) or the project engineer will usually be on-site during construction. These individuals typically report directly to the construction operations engineer (COE). In this capacity, the construction operations engineer has authority for executing and administering FLH construction activities.[33] In general, all inspectors and other subordinates act on behalf of the contracting officer's technical representative, project engineer, and construction operations engineer, who in turn work directly with the contracting officer.

Because authority to agree to contract modifications or changes is reserved to the contracting officer, NPS contact with the contractor on contract issues should be exclusively through the contracting officer's technical representative, project engineer, construction operations engineer, or the contracting officer, as stated in the project agreement. The point to note here is that NPS personnel within a park **may not** direct the contractor in any way in regards to actions that may suggest the commitment of government funds. This does not preclude the Park Service from dealing directly with the contractor on non-contract issues, such as overweight permits, pollution regulations, speeding enforcement, or other park safety or resource issues. Proper communication channels for construction projects are usually discussed in detail with the contractor and all other interested parties during the pre-construction meeting.

The project manager or the project engineer should ensure that appropriate NPS staff (park, region, and possibly Denver Service Center) are closely involved in any significant discussions and decisions affecting the project. This is true from the initial design phases through the construction process. Significant changes that affect the amount of money needed to complete the project should be coordinated with the FLH programming section and the Coordinator. Under the 1983 agreement, contract changes also require the approval of the NPS regional director. Regardless of who is responsible for the construction phase, the Park Service—often through the Denver

Service Center—monitors construction and adherence to environmental commitments and the final PS&E and/or other agreements such as the revegetation of areas disturbed by the construction activity.

2. Construction Inspection

The project engineer is responsible for verifying and documenting that the project is constructed in conformity with the plans and specifications and in compliance with the terms of the contract. To accomplish this, the project engineer must conduct periodic inspection and testing as each phase or element of the work is completed.

Unless otherwise provided for in the plans or specifications, construction methods and sources of materials are the contractor's option as long as the end product fulfills the specified requirements and the contractor works only within the specified project limits. (In no circumstance, however, is the contractor allowed to borrow from a park source unless this has been previously agreed to.) The project engineer has the authority to reject both unsatisfactory workmanship and materials.

Qualified FLH staff, NPS staff, or contract inspectors will perform the construction inspection. Contract inspectors may confirm and document that the contractor is complying with the terms of the contract. The contract inspector may NOT provide direction to the construction contractor, or take any other action that could be construed as committing the government, although their recommendations to the project engineer, construction operations engineer, or contracting officer may result in corrective actions.

3. Materials Testing

Specific requirements for all materials are stated in the contract. The contractor is required to maintain an adequate inspection system and perform inspections to ensure that materials conform to the contract requirement. The project engineer or project inspectors should witness all testing when possible and should at least review all test reports for accuracy and completeness.

4. Environmental Monitoring

The environmental commitment summary describes all environmental requirements that were identified in the preliminary engineering phase. All natural and cultural resource commitments that are relevant to the construction work are included in the contract and are monitored by assigned FLH and NPS staff.

5. Revegetation

Any commitments to revegetation of the site, which are made as part of the preliminary engineering, are managed by the Park Service, primarily the Denver Service Center. The commitments may be a part of the construction contract or may be a separate action.

D. NET CONSTRUCTION

Net construction is the amount of money programmed for construction expenses of a project. The multiyear program of projects indicates the total net construction amount for each project. Approximately 60% to 65% of the regions' fiscal year allocation is programmed for construction. The items described below are construction expenses that must be covered by the net construction amount for a project. (This description assumes that Federal Lands Highways oversees construction; when the Park Service is responsible the same considerations pertain.)

1. Obligation of Funds

The FLH division obligates funds for construction when the PS&E documents are completed and endorsed by the NPS regional director and the FLH division engineer and funds are certified as available. The amount obligated is the engineer's estimate, incentives, and up to a 5% contingency. (However, a different point of obligation is used when NPS-appropriated funds are used, which is discussed in Chapter VI, section D.)

2. Construction Contract Award

When the contract is awarded, the obligation is adjusted to the award amount. If excess funds were obligated under paragraph C.1. above, they will be de-obligated. If additional funds are required to award the contract, the Coordinator will determine whether to program additional money from current-year funds or to not award the contract.

3. Contract Modifications

Contract modifications are negotiated to change the contract and make adjustments to the contract amount. Only contracting officers acting within the scope of their warrant are authorized to execute contract modifications on behalf of the contracting office.

Once the need for a contract modification has been identified, the project engineer should coordinate very closely with all of the parties who may have an interest in the modification. The NPS region approves all contract modifications. Substantial contract modifications[33] require

review and approval by both the region and NPS Washington Office (WASO).

Funds for proposed modifications can originate from two places:

a. **Funds from within the Contract**—These are project funds that will not be used due to quantity underruns or unused incentives. Even though funds for a modification are provided by "within the contract" sources, the project manager must coordinate with the FLH programming staff and the Coordinator to ensure proper tracking of funds.

b. **Funds from outside the Contract—**These are funds that are in addition to what has been obligated for the project. The project manger must coordinate with the FLH programming staff to ensure that funds are available. The FLH programming staff will work with the Coordinator to determine the source of the needed funds. Contract modifications may affect other projects in the current fiscal year or future projects.

4. Quantity Overruns

When an overrun on an estimate clearly will impact the budget of the project, the construction operations engineer notifies the contracting officer and the FLH programming staff as soon as possible so that appropriate adjustments can be made. FLH programming staff will confer with the Coordinator to determine the source of funds. (This process is described in more detail in Chapter VI, section D.4.)

5. Right-of-Way

Right-of-way acquisition is generally not needed on PRP projects. When right-of-way is needed, park staff usually coordinate the acquisition.

6. Utilities

Utility work is done through reimbursable agreements. The Federal Highway Administration usually coordinates the reimbursable agreements for utility work.

7. Traffic Control

Traffic control plans are developed in preliminary engineering and must be implemented by the contractor, the park, or both, as indicated in the plan. Traffic control requires close cooperation with the park in any case.

8. Archiving As-Built Plans/Drawings

The contractor is required to submit two sets of as-built plans to the FLH division construction branch at the completion of a construction project. These are "hard copies" (paper copies) at the present time.

After the as-built plans are verified as accurate by the FLH division construction branch, they are sent to the FLH project development branch. The FLH division project development branch creates an electronic version of the as-built plans. They are responsible for archiving and distributing the plans.

For PRP projects, the distribution to the National Park Service will include the following:

a. the park unit in which the work was done (one hard copy and one electronic version)

b. the NPS Denver Service Center, c/o Technical Information Center (one hard copy and one electronic version)

The Technical Information Center is responsible for archiving the plans in the appropriate format for NPS use.

[29] Park or park unit refers to the about 390 national park system properties, such as national parks, seashores, monuments, trails, historic sites, battlefields, etc.

[30] The PTATS database currently resides on a site administered by the database development contractor. In the future, the database will be accessible through the NPS Intranet. The current site location is <www.dtec.com/flhp>. See Appendix F for the PTATS Operating Manual. PTATs was initially known as the Master Budget Sheet, or MBS.

[31] In some cases, regions have used a single project manager, but typically the project manger responsibility is shared by the two agencies.

[32] It should be noted that although only the contracting officer may make contractual commitments for the government, some construction operations engineers do have limited warrants, say for changes up to $25,000. The contracting officer is the ultimate person responsible for making not only the financial contractual commitments on behalf of the government, but may also direct the contractor to certain actions, stop work, etc. Of course, the contracting officer is advised by the field people observing and interacting with the contractor on a daily basis (contracting officer's technical representative, contracting officer's representative, project engineer, construction operations engineer).

[33] Substantial is defined as 5% of net construction cost, or a modification that, in combination with earlier or anticipated modifications, will equal or exceed 5% of net construction.