DEFERRED MAINTENANCE IN THE NATIONAL PARK SERVICE AND PRESERVATION GOALS FOR THE 2016 CENTENNIAL AND BEYOND

by

LAUREN MICHELLE CLEMENTINO

(Under the Direction of John Waters)

ABSTRACT

A tremendous multi-billion dollar backlog of deferred maintenance plagues National Park Service historic resources and infrastructure. This thesis examines the nature of deferred maintenance, its effect on historic structures, and recent federal government attempts to address the backlog. In light of the upcoming 2016 National Park Service centennial, recommendations are offered for higher quality historic preservation and cultural resource stewardship in the park service.

INDEX WORDS: National Park Service, Deferred Maintenance, Cyclical Maintenance, Cultural Resource Stewardship, Historic Preservation.

DEFERRED MAINTENANCE IN THE NATIONAL PARK SERVICE AND PRESERVATION GOALS FOR THE 2016 CENTENNIAL AND BEYOND

by

LAUREN MICHELLE CLEMENTINO

B.A., University of California, Los Angeles, 2007

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

MASTER OF HISTORIC PRESERVATION

ATHENS, GEORGIA

2010

DEFERRED MAINTENANCE IN THE NATIONAL PARK SERVICE AND PRESERVATION GOALS FOR THE 2016 CENTENNIAL AND BEYOND

by

LAUREN MICHELLE CLEMENTINO

Major Professor: John Waters

Committee: James Reap
Eric MacDonald
Ian Firth

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
August 2010

TABLE OF CONTENTS

LIST OF FIGURES

Page

CHAPTER 1

INTRODUCTION

The National Park Service faces two divergent truths: 2016, the 100th anniversary of the park service's formation, rapidly approaches and a multi-billion dollar backlog of deferred maintenance plagues national park conditions. While maintenance needs remain underfunded, park service historic structures and infrastructure are in peril. The park service centennial, instead of merely drawing attention to poor national park conditions, should be the impetus for change. As 2016 approaches, it is time for analysis and action. The following chapters seek to understand the nature of the deferred maintenance backlog, its effect on historic structures, and how addressing it can fit into goals for the centennial and second century of the park service.

Interest in this topic grew out of two summers working in Grand Teton National Park's Western Center for Historic Preservation. This experience exemplified the effects of deferred maintenance and threat to historic resources first-hand. Even in a park with a unique preservation program—the new Western Center was developed to address the preservation trade needs of historic resources in the Intermountain region—chronic underfunding and deferred maintenance have devastated historic structures. Grand Teton is not a singular example—deferred maintenance afflicts the entire national park system. There is no service-wide solution for combating deferred maintenance or addressing growing historic preservation needs.

Research for this thesis focused on deferred maintenance data and initiatives within the last decade (2000-2009). Although the National Park Service has over two-dozen titles for unit

types, “national parks” and “park units” are used to refer to all unit types in the system. The majority of research studied dialogue between Congress and the park service. Primarily, this consisted of Senate and House of Representatives oversight hearings for park service budget proposals, management challenges, and pending legislation. Several hearings specifically focused on the deferred maintenance backlog. The Department of the Interior and the National Park Service also published several reports during this period related to budget trends and the status of various park service initiatives.

Outside of the Department of the Interior, studies by the Government Accountability Office offered more objective descriptions of funding trends and the park service’s efforts to address deferred maintenance. Analysis by outside professionals and organizations was limited—the National Parks Conservation Association, the non-profit park service watchdog/lobbying organization, published the majority of information available. The National Parks Conservation Association’s reports provided the most useful information regarding the relationship between the deferred maintenance backlog, funding trends, and historic structures. The public and preservationist response to deferred maintenance and park conditions was gauged though National Trust for Historic Preservation reports and newspaper articles interviewing citizens and other preservation groups.

Research findings and recommendations are organized in the following way: Chapter 2 highlights the connection between historic preservation and the park service and reviews Mission 66, a significant parallel to today’s situation. Chapter 3 analyzes the roots of the deferred maintenance backlog, the extent of the problem, and the backlog’s relation to historic structure conditions. Chapter 4 examines attempts to quantify and address the deferred maintenance backlog during the last decade. Chapter 5 considers the two current 2016 centennial initiatives

and their relevant goals. Finally, Chapter 6 offers conclusions and recommendations for eliminating the deferred maintenance backlog and preparing for better historic resource management in the second century.

CHAPTER 2

NATIONAL PARK SERVICE PRESERVATION BACKGROUND

Historic Preservation and the National Park Service

The National Park Service is the federal government's leading authority on historic preservation in the United States. The National Register of Historic Places, National Historic Landmarks program, Historic American Building Survey, Historic American Engineering Record, federal preservation tax incentives, and state preservation grants-in-aid are all administered by the park service, among many other cultural resource and historic preservation programs. The park service provides historic preservation training and advice to states and other federal agencies, as well as to many outside groups and individuals. The National Park Service and the Department of the Interior have—literally—defined the standards for the preservation of historic structures. The cultural stewardship role of the park service is considerable without even mentioning national parks.

In 1916 the park service was created to protect "14 parks, 21 monuments, and one reservation, encompassing a total of six million acres." Today the park service protects "391 parks covering 84 million acres in 49 states, the District of Columbia, and islands in the Pacific and Caribbean." Annual visits have grown from 350,000 in 1916 to 274 million today.[1] The park service has an enormous influence over America's people, places, and history.

[1] National Parks Second Century Commission, *Advancing the National Park Idea: National Parks Second Century Commission Report* (National Parks Conservation Association,

Figure 1. Grand Teton National Park. Photograph from http://www.nps.gov/grte/photosmultimedia/photogallery.htm?eid=244163&aId=350&root_aid=350&sort=title&startRow=145#e_244163.

Many people associate national parks with majestic landscapes: Grand Canyon, Yosemite, Glacier, Yellowstone, or Grand Teton (see figure 1). However, from the prehistoric sites of Mesa Verde included in the 1916 formation,[2] to the new Rosie the Riveter/WWII Home Front National Historic Park, there has been a long history of cultural resource stewardship in the park service:

> "For decades the vast majority—fully two thirds—of National Park System units have been set aside for historical, architectural, or archeological values, and all units contain at least some cultural resources. Although inventories of park cultural resources remain incomplete, it is known that the system contains 27,000 historic buildings; 3,500 statues, monuments, and memorials; probably over two million archeological sites, more than 120 million museum objects and archival

---

2009), http://www.npca.org/commission/pdf/Commission_Report.PDF (accessed September 29, 2009), 15.

[2] Robert E. Stipe, ed., *A Richer Heritage: Historic Preservation in the Twenty-First Century* (Chapel Hill: University of North Carolina Press, 2003), 67.

> documents; and a large but uncounted number of rocks, rivers, mountains, trees, animals, and landscapes that have cultural significance."[3]

As the role and responsibility of the park service has evolved over the last century, historic preservation has played a larger and larger part. Today national parks should be considered stewards of cultural resources as well as natural resources.

The rich history of cultural resources within the park service does not end with the places park units protect. The history of the park service itself is embedded in national park infrastructure. Myriad park resources exemplify a century of evolving tourism, stewardship, and resource management. The major construction campaign undertaken by New Deal agencies in the 1930s created a legacy of trails, roads, bridges, buildings, and recreation facilities.[4] Famous lodgings such as the Ahwahnee Hotel and Old Faithful Inn (see figures 2 and 3) demonstrate the history of park concessionaires. Even smaller resources, such as patrol cabins (see figure 4), exemplify signature "rustic" park service architectural forms. As the 2016 centennial approaches, it is important to consider the history of the park service and national park tradition. These resources, as well as the other cultural resources in the system, should be protected by high preservation standards.

---

[3] National Parks Second Century Commission, *Advancing the National Park Idea: National Parks Second Century Committee Reports* (National Parks Conservation Association, 2009), http://www.npca.org/commission/pdf/Committee_Report.PDF (accessed November 3, 2009), 21.

[4] Dwight F. Rettie, *Our National Park System: Caring for America's Greatest Natural and Historic Treasures* (Urbana: University of Illinois Press, 1995), 5.

Figure 2. The Ahwahnee Hotel, Yosemite National Park. Photograph from http://www.yosemitepark.com/Accommodations_TheAhwahnee_PhotoGallery.aspx.

Figure 3. Old Faithful Inn, Yellowstone National Park. Photograph from http://www.preservationnation.org/assets/photos-images/issues/public-lands/Old-Faithful-Inn-1.jpg.

Figure 4. Death Canyon Patrol Cabin, Grand Teton National Park. Photograph by author.

Given its scope and influence, the condition of historic structures under park service protection should be exemplary. The lead federal historic preservation agency should demonstrate model management practices. This, however, is not the case. The park service faces a multi-billion dollar backlog of deferred maintenance and substandard condition of historic structures. As the 2016 centennial approaches, no measures are in place to remedy this situation.

Relevancy of Mission 66

In advance of the park service's 50th anniversary, national parks faced a similar state of deferred maintenance, funding woes, and inferior park conditions. New Deal programs like the Civilian Conservation Corps, which had built and maintained park infrastructure during the

1930s, were disbanded in 1942.[5] During World War II, park service appropriations dropped substantially. Several years of gross underfunding and inattention resulted in poor park conditions and a deferred maintenance backlog.[6] Funding levels during the late 1940s and early 1950s remained low due to the Cold and Korean Wars, deepening the backlog. Budgets in the 1940s and early 1950s, after adjusting for inflation, were lower than in the 1930s. Post-World War II park visitation, however, skyrocketed. Annual visits grew from 17 million in 1940 to 56 million by 1955.[7]

National parks were not equipped to handle the challenges of the post-World War II automobile age and population boom. To accommodate increased visitation park units needed more trails, roads, parking, campgrounds, bathrooms, and other basic infrastructure. National parks needed increased staff to supervise visitors and protect and interpret natural and cultural resources. Older infrastructure and historic structures needed maintenance and repair. The solution devised by park service director Conrad L. Wirth was Mission 66—a ten-year campaign to renew and reinvest in the national park system.[8] With the endorsement of President Dwight D. Eisenhower, Congress significantly increased funding for the park service between 1956 and 1966 in order to revitalize the park system:

> By 1966 Congress had spent about $1 billion on land acquisition, new staff and training, general operations, and all types of construction activity in national parks. Seventy new 'units' of the park system were authorized between 1956 and

---

[5] Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst: University of Massachusetts Press in association with Library of American Landscape History, 2007), 4.

[6] Rettie, *Our National Park System*, 7.

[7] Carr, *Mission 66*, 4.

[8] Ibid., 3.

> 1966. The Park Service constructed or reconstructed thousands of miles of roads and hundreds of miles of trails. Many parks received adequate water, sewer, and electric service for the first time. Hundreds of park residences, administration buildings, comfort stations, and other buildings for public use and park administration were built. Mission 66 expanded and professionalized Park Service staff and established new 'training centers.' Above all, Mission 66 funded more than one hundred 'visitor centers,' a new building type invented by the agency's planners and architects, which was at the heart of revised 'master planning' goals for the parks.[9]

This ten-year campaign built much of today's park infrastructure and the Administration's and Congress' funding and support for Mission 66 has never been equaled.

Mission 66 occurred simultaneously with the formation and passage of the National Historic Preservation Act, and the mission and role of the park service changed in this time to reflect new preservation ideals and duties.[10] In addition to new construction, Mission 66 initiatives focused on preservation of historic sites, both within the national parks and outside the park system.[11] Today, the aging Mission 66 infrastructure itself requires preservation and needs to be assessed for historic significance.

The years before Mission 66 have many parallels to today. The same renewal and reinvestment is needed today. The upcoming centennial provides an excellent opportunity to revitalize national parks and eliminate the deferred maintenance backlog. A Mission 66-type campaign could provide the resources and support needed to upgrade conditions and restore a standard of excellence. As the arbiter of national preservation guidelines and standards, the National Park Service deserves no less.

---

[9] Ibid., 11-12.

[10] Ibid., 175.

[11] Ibid., 195.

CHAPTER 3

GROWTH OF THE DEFERRED MAINTENANCE BACKLOG

Deferred Maintenance

Deferred maintenance results from delaying or failing to perform cyclical maintenance. Cyclical maintenance refers to routine upkeep—the basic, predictable maintenance needed to keep park structures in good condition. Homeowners perform cyclical maintenance on their houses, e.g. repainting, cleaning the gutters, or replacing missing shingles. Other preventative measures, such as regular inspections, are included in this category. Routine repairs and maintenance keep structures in optimal condition and prevent future problems. Delaying cyclical maintenance amplifies existing problems and expedites deterioration and decay. Failing to replace missing shingles today may result in replacing the entire roof later down the line. Deferred maintenance tasks are generally more costly and time-consuming than performing preemptive cyclical maintenance.

Years of inadequate funding and competing demands, described in detail below, have produced a multi-billion dollar deferred maintenance backlog within the park service. The backlog affects not only maintenance and preservation of historic structures, but also park trails, roads, visitor facilities, and other infrastructure. In a 2008 article entitled "America's Unkempt Front Yard," *The Washington Post* described the deplorable effects of deferred maintenance on the National Mall:

> The latch is missing from the stall door in the public restroom south of the Washington Monument. The hinges are bent. The partition is wobbly. Paint is

> peeling from the ceiling. Rust stains the toilet fixtures, and two signs on a wall warn in red letters: "No Bathing."
>
> Outside, along the two-and-a-quarter-mile strip of green between the Capitol and the Potomac River known as the Mall, broad swaths of grass are trampled to dust. Light fixtures are broken or missing. The ornamental brick circles around the famed elms are buried under dirt and gravel.
>
> Reflecting pools are cloudy with muck. An underground irrigation system is inoperable. And the oldest structure on the Mall has missing and boarded up windows.
>
> The Mall, the historic stretch of green known as "America's front yard," has long needed a facelift. The National Park Service says it needs $350 million in deferred maintenance.[12]

The National Mall—an American icon and home to several of the park service's most highly visited sites—deserves better. Unfortunately, conditions on the National Mall exemplify conditions in national parks nationwide.

Size of the Backlog

Due to a lack of reliable data and changing terminology, it is difficult to chart the size of the deferred maintenance backlog over time. Available figures are for the entire backlog—not simply historic structures. In 1998 it was estimated that there was a $6.1 billion backlog of deferred construction and maintenance projects. $1.2 billion of that backlog was for new facility construction, and $4.9 billion referred to maintenance and construction projects for existing infrastructure (including historic structures).[13] Although the backlog constantly changes in size,

[12] Michael E. Ruane, "America's Unkempt Front Yard: Park Service Says Mall Needs $350 Million in Deferred Maintenance," *Washington Post,* June 18, 2008, http://www.washingtonpost.com/wp-dyn/content/article/2008/06/17/AR2008061702787.html (accessed June 10, 2010).

[13] Senate Committee on Energy and Natural Resources, Subcommittee on National Parks. *National Parks Backlog: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*, 108th Cong., 1st sess., July 8, 2003 (Washington, D.C.: Government Printing Office, 2003), 31.

the $4.9 billion estimate was cited for several years due to a lack of more recent data. When the Bush Administration began the National Parks Legacy Project in 2001, the deferred maintenance backlog was still cited as $4.9 billion.

In 2003, estimates placed the deferred maintenance backlog between $4.1 and $6.8 billion.[14] At the end of 2009, there was an $8.4 billion construction and maintenance backlog. In addition, the annual operational appropriations shortfall (including funding for cyclical maintenance and repair and rehabilitation projects) was estimated to be $750 million.[15] The size of the deferred maintenance backlog, by nature, is in flux as some projects are completed and new needs arise. Pinpointing the exact figure is not as important as understanding that the deferred maintenance backlog continues to evolve and expand.

The National Park Service is not the only agency facing deferred maintenance issues; the Government Accountability Office has identified deferred maintenance as a federal government-wide problem since 2003. The Department of the Interior as a whole had a deferred maintenance backlog between $13.2 and $19.4 billion at the end of 2008, a more than 60% increase from its 2003 backlog estimate. Of that total, $2.38 to 3.48 billion relates to buildings (including historic structures).[16] Although this work focuses on the park service, this is a national preservation problem affecting the entire federal government.

---

[14] Ibid.

[15] National Parks Second Century Commission, *Second Century Committee Reports*, 77.

[16] U.S. Government Accountability Office, *Department of the Interior Major Management Challenges: Testimony before the Subcommittee on Interior, Environment, and Related Agencies, Committee on Appropriations, House of Representatives* by Robin Nazzaro and Frank Rusco (Washington, D.C.: U.S. Government Accountability Office, 2009), http://purl.access.gpo.gov/GPO/LPS113417 (accessed September 3, 2009), 12-13.

Federal Appropriations

Annually, national parks only receive two-thirds of their needed funding.[17] According to the National Parks Conservation Association, "insufficient funding is the single greatest threat to the health of the national parks today."[18] It is definitely the single greatest contributor to the deferred maintenance backlog. Years of inadequate federal appropriations have delayed or prevented cyclical maintenance, resulting in a multi-billion dollar backlog today. Even where other factors have influenced the deferred maintenance backlog, money is the common denominator.

The park service currently operates with a $2.4 billion annual budget. The majority of the budget derives from discretionary federal appropriations. This is supplemented by smaller percentages of "fees (8% of total National Park Service funding), donations (1%), and volunteer support (estimated at 3.3%)."[19] Although a significant portion of fee revenue is devoted to addressing the deferred maintenance backlog, discretionary appropriations have a far greater influence over maintenance practices. Insufficient Congressional appropriations are the primary cause of today's backlog.

Congress appropriates money for maintenance in several different ways. Within the Operation of the National Park System account, money is appropriated for cyclical maintenance,

---

[17] National Parks Conservation Association, *Working Assets: Reinvesting in National Parks to Create Jobs and Protect America's Heritage* (National Parks Conservation Association, 2009), #, http://www.npca.org/media_center/pdf/stimulus_report-dec_16.pdf (accessed November 3, 2009), 2.

[18] Andrea Keller Helsel, Kate Himot, Scott Kirkwood, and Amy M. Leinbach, *Faded Glory: Top 10 Reasons to Reinvest in America's National Park Heritage* (National Parks Conservation Association, 2005), http://www.npca.org/what_we_do/ten_most_endangered /2005/TenReasons.pdf (accessed May 2, 2010), 3.

[19] National Parks Second Century Commission, *Second Century Committee Reports*, 77.

repair and rehabilitation projects, and asset inventory and monitoring. The majority of maintenance money comes from operational funding and is it the most stable appropriation. A separate Construction Appropriation also provides money for maintenance through line-item construction projects. In park service funding terminology, the term "construction" not only refers to new structures, but also to major repair and rehabilitation of existing structures. Congress does appropriate money into several other park service accounts—i.e. the Historic Preservation Fund or Land Acquisition and State Assistance—but these funds have no bearing on national park maintenance and construction projects.

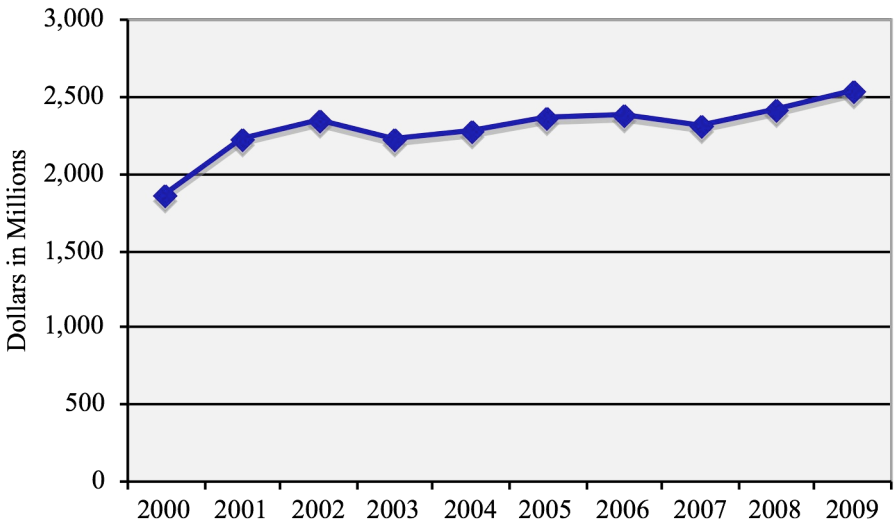

Figure 5. Total National Park Service discretionary appropriations, 2000-2009. The data represents nominal dollars and is not adjusted for inflation. *Source*: Data from U.S. Department of the Interior, National Park Service, "National Park Service: Budget History," table 1, http://home.nps.gov/applications/budget2/tables.htm (accessed February 8, 2010).

Throughout park service history—and definitely in recent years—appropriations have not increased substantially to meet the growing size and demands of the park service. Figure 5 shows overall federal appropriation levels through the last decade. Figures 6 and 7 depict

appropriation levels for the Operation of the National Park System account and for Facilities Maintenance and Operation within that account during the last decade. Although appropriation levels have seen slight increases in this time, increases have not been enough to offset rising costs.

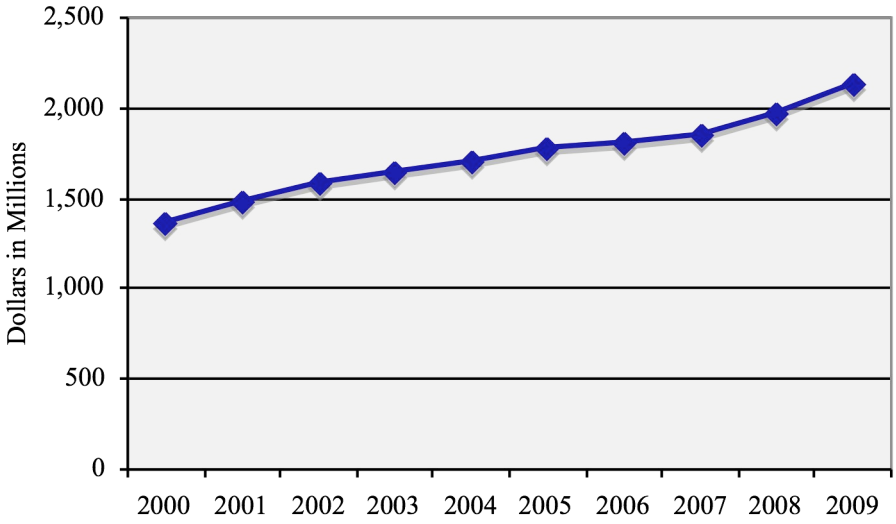

Figure 6. Operation of the National Park System account appropriations, 2000-2009. The data represents nominal dollars and is not adjusted for inflation. *Source*: Data from U.S. Department of the Interior, National Park Service, "National Park Service: Budget History," table 1, http://home.nps.gov/applications/budget2/tables.htm (accessed February 8, 2010).

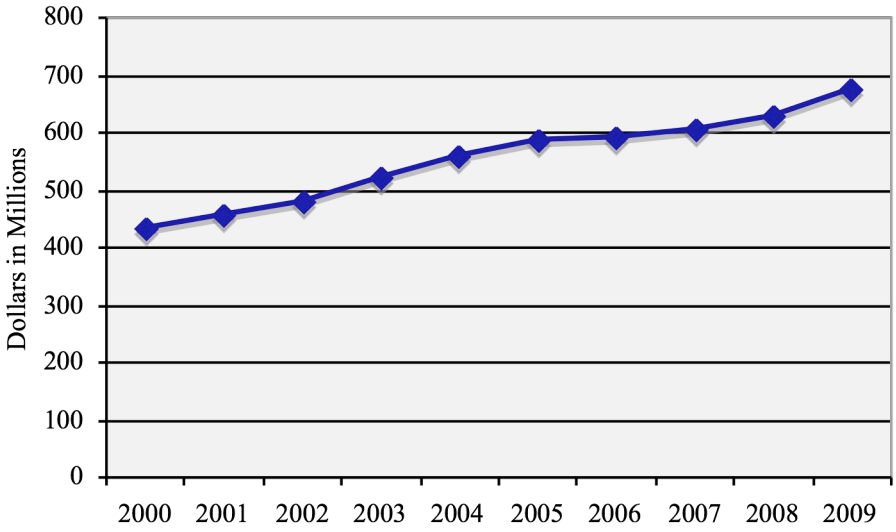

Figure 7. Facility Operations and Maintenance appropriations, 2000-2009. The chart represents the portion of the Operation of the National Park System appropriation dedicated to Facility Operations and Maintenance. The data represents nominal dollars and is not adjusted for inflation. *Source*: Data from U.S. Department of the Interior, National Park Service, "NPS Budget Justifications," http://home.nps.gov/applications/budget2/gbchoose.htm (accessed February 8, 2010): *Budget Justification and Annual Performance Plan Fiscal Year 2002*, NPS-16; *Budget Justification and Annual Performance Plan Fiscal Year 2003*, Overivew-13; *Budget Justification and Annual Performance Plan Fiscal Year 2005*, Overview-24; *Budget Justification and Annual Performance Plan Fiscal Year 2006*, Overview-33; *Budget Justification and Annual Performance Plan Fiscal Year 2007*, Overview-15; *Budget Justification and Annual Performance Plan Fiscal Year 2008*, Overview-67; *Budget Justification and Annual Performance Plan Fiscal Year 2009*, Overview-50; *Budget Justification and Annual Performance Plan Fiscal Year 2010*, Overview-33; *Budget Justification and Annual Performance Plan Fiscal Year 2011*, Overview-27.

Figure 8, unlike figures 5, 6, and 7, factors in the costs of inflation. The Government Accountability Office assessed park service operational funding from 2001-2005, looking at data in nominal dollars and also in real (adjusted for inflation) dollars. Such a comparison, figure 8, reveals that the small increases in operational funding either did not or barely covered rising costs of inflation. If data were available to adjust the decade's funding trends for inflation, appropriation increases would be minimal. Although in the late 1990s the overall park service

budget increased about 9% annually, in the early 2000s the average annual increase was only 1%.[20] Such small increases cannot offset rising costs or correct operational funding deficits.

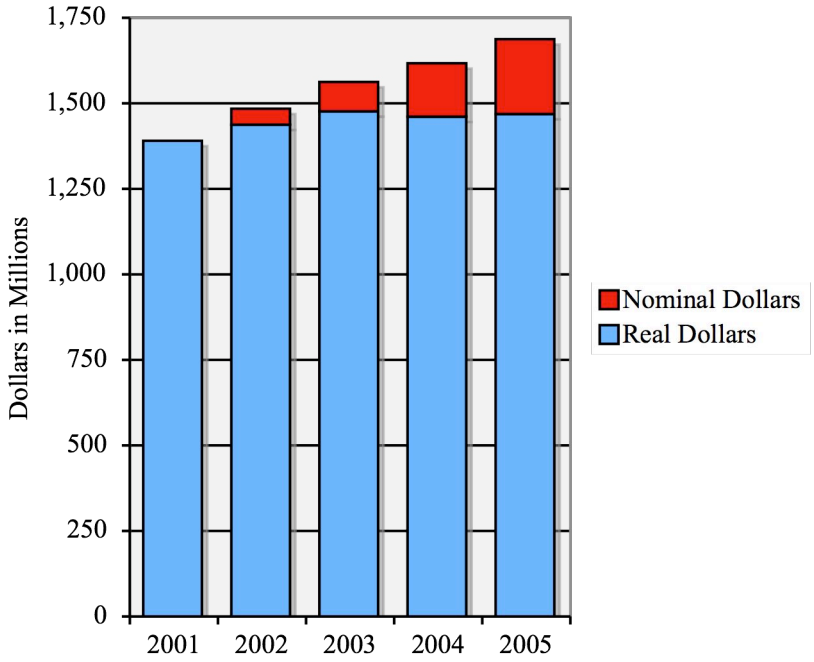

Figure 8. Operation of the National Park System account appropriations in real and nominal dollars, 2001-2005. Real dollars reflect nominal dollars adjusted for inflation, using 2001 as a base. *Source*: Data from U.S. Government Accountability Office, *National Park Service Major Operations Funding Trends and How Selected Park Units Responded to Those Trends for Fiscal Years 2001 through 2005: Report to Congressional Requesters* (Washington, D.C.: U.S. Government Accountability Office, 2006), tables 11 and 12.

Construction appropriations are irregular and unpredictable (see figure 9). Line-item project funding is competitive and the dollar amount and number of projects granted funding per park varies greatly from year to year. Overall funding for maintenance also has been unsteady. When one area has increased, another has decreased. For example, in fiscal year 2007 cyclical

[20] Senate Committee, *National Parks Backlog*, 40.

maintenance was increased by $10 million,[21] but repair and rehabilitation project funding was cut by $10 million.[22] There has not been stable construction project appropriations or consistent emphasis on cyclical or deferred maintenance.

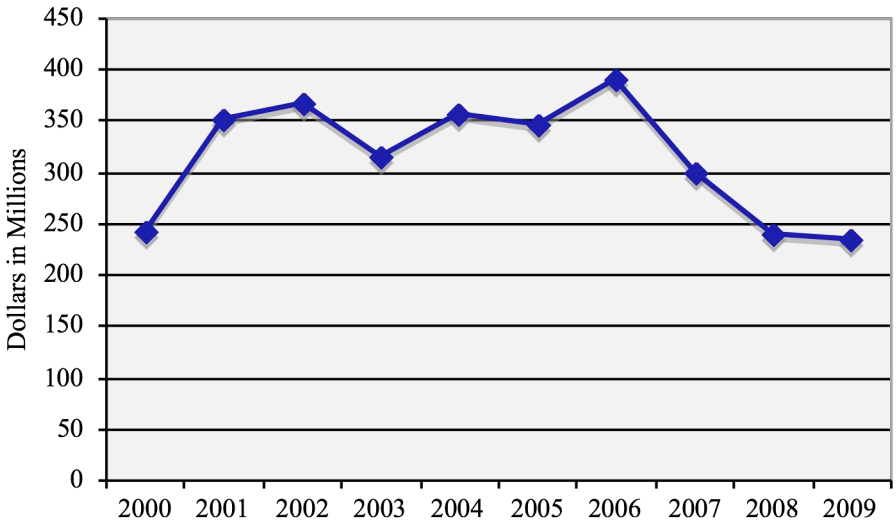

Figure 9. National Park Service Construction account appropriations, 2000-2009. The data represents nominal dollars and is not adjusted for inflation. Data for 2009 is from the fiscal year 2009 budget appropriation and does not include funding appropriated separately through the American Recovery and Reinvestment Act. *Source*: Data from U.S. Department of the Interior, National Park Service, "National Park Service: Budget History," http://home.nps.gov/applications/budget2/tables.htm (accessed February 8, 2010), table 1.

Working within an unsteady, inadequate budget has severely affected national park operations. A survey of 12 high-visitation park units by the Government Accountability Office revealed that,

[21] Senate Committee on Energy and Natural Resources, Subcommittee on National Parks, *Proposed Fiscal Year 2007 Budget Request for the National Park Service: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*, 109th Cong., 2d sess., March 14, 2006 (Washington, D.C.: Government Printing Office, 2006), 7.

[22] Ibid., 9.

> allocations were not sufficient to address increases in operating costs, such as salary and benefit increases and rising utility costs; and new Park Service requirements directed at reducing its deferred maintenance needs, implementing its asset management strategy, and maintaining law enforcement levels. Officials also stated that these factors reduced their management flexibility. As a result, park unit managers reported that, to varying degrees, they made trade-offs among the operational activities which, in some cases, resulted in reducing services in areas such as education, visitor and resource projection, and maintenance activities; managers also increasingly relied on volunteers and other authorized funding sources to provide operations and services that were previously paid with allocations for daily operations.[23]

Operational budget trade-offs have forced park units to delay routine maintenance activities until funding can be found and approved.[24] These delays to cyclical or preventative maintenance eventually result in more costly deferred maintenance needs.

Increases to park service appropriations alone are not the answer. Budgetary gains for the park service mean cuts for other branches of the Department of the Interior.[25] Interior appropriations are at approximately the same level today as in 2003 and 2004.[26] Instead of appropriating more money for the Interior in order to increase individual agency budgets, money is simply shifted around between Interior agencies. Any gains in park service appropriations result in losses for other areas, such as the Bureau of Land Management or Bureau of Indian Affairs. Park service funding inadequacies reflect larger federal appropriation problems.

---

[23] U.S. Government Accountability Office, *National Park Service Major Operations Funding Trends and How Selected Park Units Responded to Those Trends for Fiscal Years 2001 through 2005: Report to Congressional Requesters* (Washington, D.C.: U.S. Government Accountability Office, 2006), http://purl.access.gpo.gov/GPO/LPS70470 (accessed September 2, 2009), 5.

[24] Ibid., 37.

[25] Jim Giammo, *Budget Considerations,* (National Parks Second Century Commission, 2009), http://www.visionfortheparks.org/resources/budget.pdf (accessed November 3, 2009), 3.

[26] National Parks Second Century Commission, *Second Century Committee Reports*, 77.

Insufficient federal appropriations hinder many park service operations and programs—not just maintenance and construction—and the deferred maintenance backlog exists as a direct result. The condition of historic structures is impacted by maintenance funding levels, and tied to the deferred maintenance backlog. Funding shortfalls have been a major threat to historic structures and cultural resources in general. A 2008 assessment of national park conditions by the National Parks Conservation Association faults "benign neglect, on the park of the Park Service itself but more accurately, on the part of Congress and successive administrations for failing to adequately invest in America's future by ensuring the preservation and interpretation of its past."[27] There is no replacement for federal funding, and without greatly increased appropriations park historic structures and infrastructure cannot be properly maintained.

Land Acquisition and New Park Units

The National Park Service has grown considerably over the last 100 years—from 14 parks, 21 monuments, and one reservation in 1916 to 391 park units today.[28] Federal appropriations, however, have not increased in proportion to the expansion of the park system. Instead, when new units are created and existing park boundaries extended, the park service budget is spread thinner and thinner. As new resources are added to the system, it becomes more difficult to manage existing resources.

To illustrate this trend, 34 new park units were created between 1991 and 2002. By 2003, these units had an annual operations shortfall of $30 million and needed another $265

[27] National Parks Conservation Association, *The State of Our National Parks: A Resources Index* (National Parks Conservation Association, 2008), http://www.npca.org/stateoftheparks/npri/NPRI-web.pdf (accessed August 31, 2009), 24.

[28] National Parks Second Century Commission, *Second Century Commission Report*, 15.

million in one-time project funding. Budget deficits were expected to deepen as these units became fully operational.[29] Federal appropriations do not reflect the number of park units in the system. To cover the costs of new units, funding is shifted away from existing units. Less money is then available to each park unit for construction and maintenance. During a 2003 House hearing, Death Valley National Park Superintendent J.T. Reynolds stated, "Because of the overall budget constraints under which we are operating, every property that is added to the National Park System negatively impacts our ability to address the deferred maintenance backlog."[30] By adding infrastructure to the system and stretching available funding too thin, land acquisition and the creation of new park units has augmented the deferred maintenance backlog.

Although it is hard to argue against the merits of creating new units to diversify the park system, without adequate funding the park service cannot care for its current or future resources. In a 2003 Senate hearing, National Park Service Deputy Director Donald W. Murphy testified, "The Department [of the Interior] has been asking Congress to defer action on bills that would establish new park units of the National Park System, despite the fact that some of these proposals might otherwise merit our support. We have taken this position because we are concerned about the demands each new unit could create on the NPS budget."[31] While park service leadership may understand the impacts of land acquisition, the authority for designating

---

[29] Senate Committee, *National Parks Backlog*, 9.

[30] House Committee on Resources, Subcommittee on National Parks, Recreation, and Public Lands, *The Impact Land Acquisition Has on the National Park Service Maintenance Backlog, Park Service Management Priorities, and Local Communities: Oversight Field Hearing before the Subcommittee on National Parks, Recreation, and Public Lands of the Committee on Resources,* 108th Cong., 1st sess., September 27, 2003 (Washington, D.C.: Government Printing Office, 2004), 6.

[31] Senate Committee, *National Parks Backlog*, 8.

new park units is given to Congress and the President. Acquiring new park units is advocated by many interest groups and individuals and sought as pork barrel by members of Congress. During the same hearing Senator Craig Thomas joked, "I was surprised when you [Murphy] said only 14 units had been added in the last 5 years… It seems like we have a couple of them every week around here."[32]

Thomas—then-Chairman of the Senate Subcommittee on National Parks and whose home state of Wyoming is home to six park units, including Yellowstone—understands better than most the struggles of the park service. Most members of Congress, citizens, and lobbying groups look no further than acquisition and designation. Funding operational, construction, and maintenance costs for new units and the budget impact on existing units is not considered. Congress appears to have heeded the Department of the Interior's request—only three new park units have been added since that 2003 hearing. However, the fate of recently established National Heritage Areas, which are not currently part of the park system, but may be permanently funded additions in the future, could significantly impact park service funding. Whatever the future impacts may be, land acquisition, new park unit designation, and the resulting funding shortfalls have been major contributors to the current deferred maintenance backlog.

Aging Park Infrastructure

The vast majority of park service infrastructure was constructed by New Deal agencies like the Civilian Conservation Corps (CCC) in the 1930s or during Mission 66—totaling 90% of

[32] Ibid., 14.

park infrastructure today.[33] As this infrastructure ages it requires greater maintenance and repair. Being constructed during one of two major campaigns, many park structures also have similar lifecycle timelines. Major lifecycle maintenance events—i.e. roof replacements, sewage treatment upgrades, road repaving—occur around the same time for many structures. Within the aging infrastructure, many structures are requiring costly repairs and upgrades at the same time. These needs overload current funding and staffing levels, accelerating the deferred maintenance backlog.

In addition, the aging infrastructure continuously adds to the number of park service historic structures. Many New Deal era structures are already deemed historic resources. As Mission 66 structures hit the 50-year mark, more are considered historic by preservation standards. Structures once erected to help preserve and interpret historic resources—park service administration buildings, visitor centers, and other facilities—are now becoming historic resources themselves. As the park service approaches its 100th birthday, it is important to preserve the history of the park service itself.

Rising Cost of Other Federal Mandates

As stated above, the park service has an annual operational funding shortfall of $750 million. In part, this is because any recent operational funding increases have been offset by the rising costs of several federal mandates. Homeland Security expenses and cost of living

[33] House Committee on Government Reform, Subcommittee on Criminal Justice, Drug Policy, and Human Resources, *The National Parks: Will They Survive for Future Generations?: Hearing before the Subcommittee on Criminal Justice, Drug Policy, and Human Resources of the Committee on Government Reform*, 109th Cong., 1st sess., April 22, 2005 (Washington, D.C.: Government Printing Office, 2005), 71.

increases for park personnel wages and benefits, in particular, drain operational funding.[34] Although operational appropriations factor in these mandates, budget increases have not been enough to cover the costs.

Homeland Security initiatives have greatly affected park staffing and funding levels in order to protect the nation's priority resources. Tom Kiernan, president of the National Parks Conservation Association, summarized these effects during a 2003 Senate hearing testimony:

> Many parks throughout the system have shipped critical personnel elsewhere to augment homeland security demands at other sites, further straining resources that are already stretched to the limit. In addition, it is estimated to cost the National Park Service $63,000 per day every time the Department of Homeland Security issues an orange alert. Each park has to bear the impact of these costs, making an austere budget climate even more grim.[35]

The park service does not receive funding from Homeland Security.[36] Although additional money is appropriated for the park service, it is not enough to cover all the enhanced security costs. Uncovered costs have to come out of the general park service operating budget, forcing cuts in other areas.[37]

Federal government wages and benefits are fixed costs that periodically rise with cost of living increases. About 80% or more of daily operations funding at each park unit goes towards wages and benefits.[38] Between 2001 and 2005, park service appropriations only covered about

---

[34] Ibid., 51.

[35] Senate Committee, *National Parks Backlog*, 32.

[36] House Committee, *Will They Survive for Future Generations*, 53.

[37] Senate Committee on Energy and Natural Resources, Subcommittee on National Parks, *The National Park Service's Funding Needs: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*, 109th Cong., 1st sess., May 10, 2005 (Washington, D.C.: Government Printing Office, 2005), 13.

[38] U.S. Government Accountability Office, *Major Operations Funding Trends*, 2.

50% of the required cost of living increases. In a Government Accountability Office survey of 12 high-visitation park units published in 2006, park managers revealed the trade-offs made to comply with rising personnel costs. Park units had to "eliminate or defer spending in order to accommodate the increases." This meant less money available for maintenance, but also fewer staff members available to perform it. At Gettysburg National Military Park, managers refrained from filling or delayed filling vacant positions.[39] Mangers at Sequoia and Kings Canyon National Parks "left several high-graded positions unfilled in order to hire a lower graded workforce" to perform basic operational needs that directly affect visitors.[40] With tighter daily operations budgets and vacant personnel positions, park units cannot perform properly or adequately manage the resources in their care.

Impact on Historic Structures

A combination of the above factors has resulted in a deferred maintenance backlog, but what does this mean for historic structures? Although deferred maintenance affects all buildings and park infrastructure, it has an exaggerated effect on historic structures. Delaying basic, routine maintenance results in an increased loss of historic material. While repairs can often be made, the integrity of historic material is irreplaceable. In some cases historic building materials—such as depleted tree species or old growth trees—are no longer available and exactly replicating the historic appearance is impossible. In extreme cases, structures have deteriorated to the point where the only preservation treatment option remaining is complete reconstruction.

[39] Ibid., 27.

[40] Ibid., 28.

The authenticity of historic fabric is a factor that does not play into other areas of deferred maintenance, and therefore amplifies the impact on historic structures.

The National Trust for Historic Preservation has included over 20 national parks on its annual 11 Most Endangered Historic Places list since the program began in 1988.[41] In many cases, these historic places faced deterioration as a result of deferred maintenance. For example, the historic structures of Glacier National Park were listed in 1996. According to the National Trust, "Tight budgets, increasing demands on park staff and changing priorities [resulted] in little or no maintenance of historic structures." In consequence, many of Glacier's historic structures were rotting and abandoned.[42] In 1998, Mesa Verde National Park was listed. The National Trust assessed that "of the more than 600 cliff dwellings in Mesa Verde, the National Park Service [had] the resources to provide regular maintenance for only 40 to 50."[43] Deferred maintenance is taking its toll on historic structures.

The estimated percentage of historic structures affected by deferred maintenance fluctuates and is by no means exact. There are approximately 27,000 historic structures in the National Park Service system. In 2003, over 60% of those structures needed repair or

[41] National Trust for Historic Preservation, "Statement of the Midwest Office of the National Trust for Historic Preservation," National Trust for Historic Preservation, http://www.preservationnation.org/issues/public-lands/national-park-service/testimonies-for-second-century-commission/statement-of-the-midwest-1.html (accessed June 10, 2010).

[42] National Trust for Historic Preservation, "11 Most Endangered: Historic Structures in Glacier National Park," National Trust for Historic Preservation, 1996, http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/historic-structures-in-glacier-national-park.html (accessed June 10, 2010).

[43] National Trust for Historic Preservation, "11 Most Endangered: Mesa Verde National Park," National Trust for Historic Preservation, 1998, http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/mesa-verde-national-park.html (accessed June 10, 2010).

maintenance, a total of over $1 billion in required project funding.[44] According to a National Trust for Historic Preservation official testifying in a 2005 House of Representatives hearing, 55% of park service historic structures were in poor or fair condition.[45] To give an example of how this affects individual park units, in 2005 three of every four historic structures in Canyonlands National Park were deteriorating—a total backlog of $36 million (see figure 10).[46]

Figure 10. Aztec Butte structure. An example of Canyonlands National Park's historic resources, this is one of 12 known Aztec Butte architectural features and was constructed between 1050 and 1300 AD. Photograph from National Park Service List of Classified Structures database.

[44] de Teel Patterson Tiller, *Cultural Resource Management and Heritage Preservation* (National Parks Second Century Commission, 2009), http://www.visionfortheparks.org/resources/cultural-resources.pdf (accessed November 3, 2009), 3.

[45] House Committee, *Will They Survive for Future Generations*, 62.

[46] Ibid., 48.

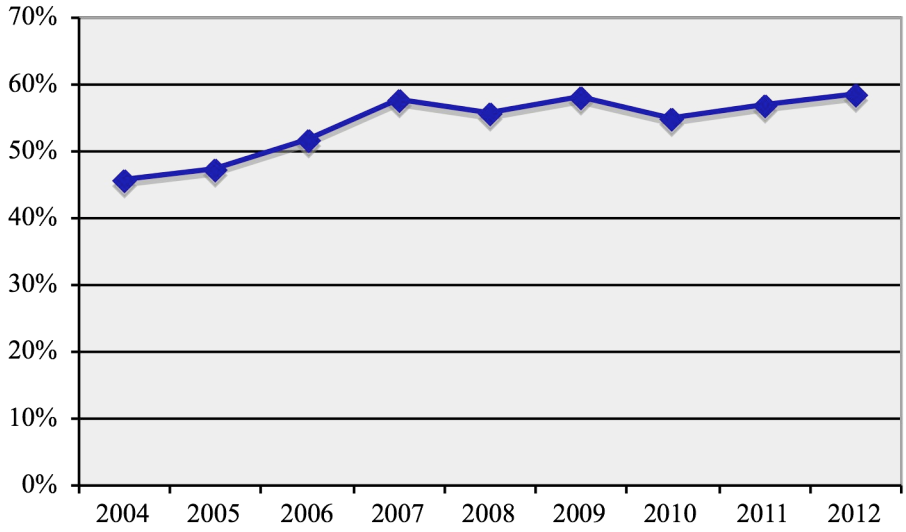

Figure 11. Percentage of National Park Service historic structures in good condition, 2004-2012. The chart represents the percentage of the National Park Service's List of Classified Structures that were/will be listed in good condition as a result of past funding levels (2004-2009) and predicted funding levels (2010-2012). *Source*: Data from U.S. Department of the Interior, National Park Service, *Budget Justification and Annual Performance Plan Fiscal Year 2008*, http://home.nps.gov/applications/budget2/downloads.htm (accessed February 8, 2010), Overview-11; U.S. Department of the Interior, National Park Service, *Budget Justification and Annual Performance Plan Fiscal Year 2011*, http://home.nps.gov/applications/budget2/downloads.htm (accessed February 8, 2010), Overview-17.

The National Parks Conservation Association's 2008 assessment of park conditions revealed that overall historic structures were in fair condition. "Fair" may seem acceptable, but historic structures only scored 64 out of 100 in the 43 parks surveyed—a "D" by most grading systems and just above "poor" condition on the National Parks Conservation Association scale.[47] Figure 11 illustrates the percentage of park service historic structures estimated to be in good condition from 2004-2012. The percentage fluctuates and never reaches 60%. This figure is based on enacted funding levels from 2004-2009 and predicted funding through 2012.

[47] National Parks Conservation Association, *State of Our National Parks*, 12.

Unfortunately, at predicted funding levels, the maintenance and construction required to bring a more significant portion of these structures into good condition is impossible.

Conclusion

The root of the deferred maintenance backlog lies in Congress' inability to properly fund the park service or to fully understand the complexities of the growing park system. Adequate funding is needed for both cyclical and deferred maintenance. Park unit managers should not have to make costly trade-offs between different park programs. A stronger commitment to historic structures and new initiatives to eliminate the deferred maintenance backlog are needed.

CHAPTER 4

DEFERRED MAINTENANCE INITIATIVES: PROPOSALS V. RESULTS

In the last decade (2000-2009), several initiatives aimed to quantify and reduce the deferred maintenance backlog. The new park service asset management program and the National Parks Legacy Project demonstrated Congress' and the Bush Administration's heightened concern for the deferred maintenance backlog in the first half of the decade. Although these actions had not eliminated the backlog, commitment to addressing deferred maintenance needs dwindled in the second half of the 2000s. The American Recovery and Reinvestment Act of 2009, however, made a significant investment in maintenance, and hopefully signals a renewed commitment to preserving valuable assets as the park service enters another decade and approaches the 2016 centennial.

New Asset Management Program

A major problem in combating the park service's deferred maintenance backlog has been that no reliable data exists to quantify the problem. The park service has not had precise estimates of the size of the backlog or a means of measuring progress towards eliminating it. In 1998, after the General Accounting Office[48] announced that the park service had an estimated $4.9 billion maintenance backlog, a new assessment management program was designed. The

[48] The agency title "General Accounting Office" has since been changed to "Government Accountability Office."

foremost new program goal is to provide "a reliable and systematic method for estimating and documenting [park service] deferred maintenance needs and tracking progress in reducing the amount of deferred maintenance."[49]

The program uses a computerized Facility Management Software System to track conditions and maintenance costs. Condition data is gathered through two types of assessments—annual and comprehensive. Annual assessments are quick "eyeball inspections" to record obvious changes or problems. Comprehensive assessments are more detailed, close inspections of structural conditions that take place every five years.[50] Assessment information is used to rate overall conditions and measure repair costs against replacement values in a Facility Condition Index.[51] This new process gives the park service a "(1) reliable inventory of its assets; (2) process for reporting on the condition of each asset in its inventory; and (3) consistent, systemwide methodology for estimating the deferred maintenance costs for each asset."[52] For historic structures this will mean that "data can be used to assess facility condition, predict long-term preservation needs, and estimate maintenance and repair schedules."[53] Implementation of the asset management program, including comprehensive inventories of all individual park units,

---

[49] Senate Committee, *National Parks Backlog*, 11.

[50] U.S. General Accounting Office, *National Park Service Efforts Underway to Address Its Maintenance Backlog* by Barry T. Hill (Washington, D.C.: U.S. General Accounting Office, 2003), http://purl.access.gpo.gov/GPO/LPS38104 (accessed September 2, 2009), 4.

[51] Ibid., 5.

[52] Ibid., 2.

[53] Senate Committee on Energy and Natural Resources, Subcommittee on National Parks, *NPS Operation and Management: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources,* 109th Cong., 1st sess., July 14, 2005 (Washington, D.C.: Government Printing Office, 2005), 30.

was completed in 2006. The total implementation cost—from 1999 to 2006—was $91 million. Annual costs to sustain the program will be $20 million.[54]

An analysis of the asset management program implementation process at 12 high-visitation park units by the Government Accountability Office revealed that:

> Overall, park managers viewed this new system as a worthwhile endeavor. However, park officials explained that their units were not provided additional funds needed to implement this new responsibility. As a result, most of the parks used existing staff to inventory assets and enter the data into the software system at the expense of their primary duties. According to officials at many of the park units we visited, staff no longer had sufficient time to perform primary duties and responsibilities, such as regularly scheduled preventative maintenance or bathroom cleaning.[55]

Due to inadequate funding and staffing, the implementation costs of the program have outweighed the benefits. Now the implementation is complete, however, the new asset management program will undoubtedly improve facility management. Park service budget proposals for maintenance can now be based on reliable data and progress towards eliminating the backlog can be measured.

National Parks Legacy Program

During campaign speeches in his run for office, President George W. Bush emphasized the importance of protecting and investing in America's national parks. In 2001 he realized campaign promises and launched the National Parks Legacy Project to "enhance the protection of America's national parks and increase the enjoyment of those visiting the parks." Bush's goals for the project included:

---

[54] U.S. General Accounting Office, *Efforts Underway*, 6.

[55] U.S. Government Accountability Office, *Major Operations Funding Trends*, 32.

- Improving park infrastructure by eliminating the $4.9 billion backlog of deferred maintenance.
- Enhancing conservation efforts by improving our understanding of the complex relationships among plants, animals, and ecosystems and better understanding the potential impacts of human development, pollution, non-native species, and pressures from increased visitation.
- Serving the public by ensuring access for all, including the disabled, to our parks. Improving the education value of park experiences and ensuring that citizens are aware of opportunities to participate in conservation and restoration partnerships.
- Improving conservation and park opportunities in urban areas through partnering with States and local governments.
- Preserving and restoring ecosystems.[56]

Bush's first goal sought to eliminate the backlog in the next five years (fiscal years 2002-2006). Based on the same 1998 General Accounting Office report figure as the new asset management program, the backlog included $3.84 billion in non-road maintenance and $1.26 billion in deferred road projects.[57]

The Bush Administration provided funding in several ways. First, the Legacy Project increased federal maintenance appropriations.[58] Second, the park service required park units to dedicate the majority of user fee revenue to deferred maintenance.[59] Lastly, Bush proposed a new Transportation Equity Act to increase the Federal Highway Administration's budget for addressing backlogged road projects in national parks.[60] In addition to deferred maintenance

---

[56] White House, Office of the Press Secretary, "The National Parks Legacy Project." White House, May 30, 2001, http://georgewbush-whitehouse.archives.gov/news/releases/2001/05/20010530-2.html (accessed September 2, 2009).

[57] Senate Committee, *National Parks Backlog*, 6.

[58] U.S. Department of the Interior, National Park Service, *America's National Parks Investing to Preserve Their Future* (Washington, D.C.: Government Printing Office, 2004), #, http://purl.access.gpo.gov/GPO/LPS71166 (accessed January 13, 2010), 4.

[59] U.S. Government Accountability Office, *Major Operations Funding Trends*, 10.

[60] U.S. Department of the Interior, *Investing to Preserve Their Future*, 4.

funding, the Legacy Project emphasized cyclical maintenance funding as a means of preventing future project backlogs. The ongoing efforts to implement the new asset management program were also highlighted as a "vigorous effort to bring state-of-the-art facilities management to the park."[61]

Figure 12. Painted Desert Inn, Petrified Forest National Park. Photograph from National Park Service List of Classified Structures database.

In total, funding for maintenance activities did reach $4.9 billion between 2002 and 2006. However, the numbers are misleading and the backlog was by no means eliminated. The majority of the $4.9 billion was a continuation of pre-existing funding levels. For example, the 2003 *National Park Service Partnering and Managing for Excellence* report claimed that $2.9

[61] U.S. Department of the Interior, National Park Service, *National Park Service Partnering & Managing for Excellence* (Washington, D.C.: Government Printing Office, 2003), #, http://purl.access.gpo.gov/GPO/LPS76248 (accessed September 3, 2009), 7.

billion had already been dedicated to reducing the maintenance backlog.[62] However, the National Parks Conservation Association estimates that $2.5 billion of that total was a continuation of earlier funding and only $371 million was new money.[63] The overall park service budget during that period increased only 1% annually, which does not show a major Legacy Project commitment.[64] The National Parks Conservation Association charged those seeking to take credit for increased funding with using "creative accounting and forecasting" to reach $4.9 billion.[65]

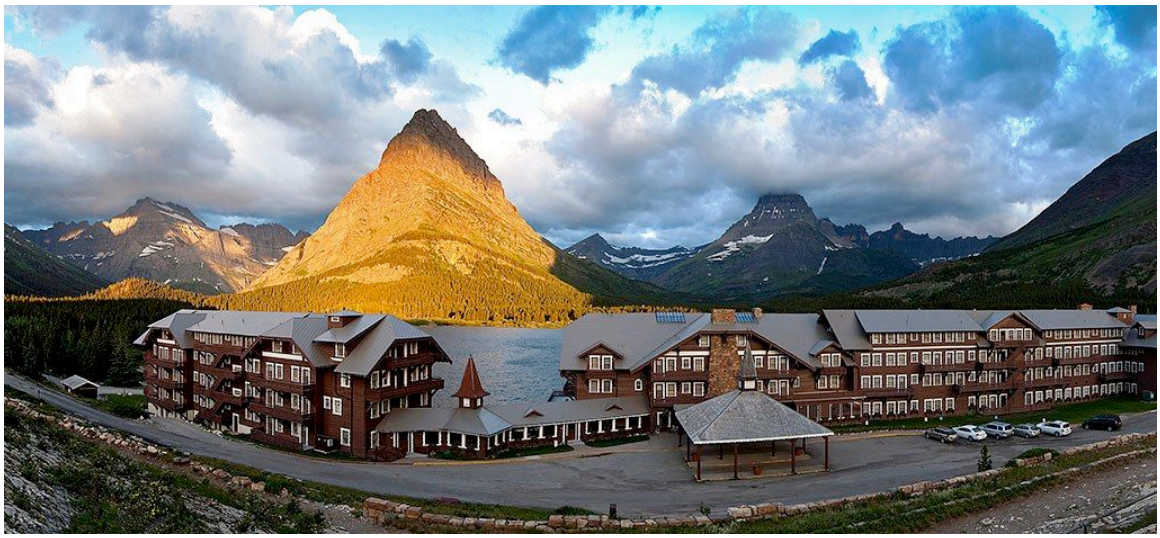

Figure 13. Many Glacier Hotel, Glacier National Park. Photograph from http://www.glacierparkinc.com/many_glacier_hotel.php.

[62] Ibid., 5.

[63] Senate Committee, *National Parks Backlog*, 39.

[64] Ibid., 40.

[65] National Parks Conservation Association, *The Burgeoning Backlog: A Report on the Maintenance Backlog in America's National Parks* (National Parks Conservation Association, 2004), http://www.npca.org/what_we_do/visitor_experience/backlog/backlog.pdf (accessed August 31, 2009), 2.

Legacy Project funding was also criticized because user fees, although authorized by the federal government, did not represent federal dollars invested in maintenance.[66] Not all park units collect fees through the Recreational Fee Demonstration Program; parks that do collect fees keep 80% of the revenue (the other 20% goes to overall park service accounts).[67] Parks that collect fees generally use them to fund highly visible projects to which park visitors are interested or committed. Requiring park managers to dedicate a higher percentage to deferred maintenance projects forced cuts for other areas—such as natural resource programs—which had previously been funded with visitor fees.[68] While many major maintenance projects have been funded through fee collection, they should not have come at the expense of other park programs and visitor fees should be a supplement to, not a replacement for, federal funding.

Figure 14. Monroe Elementary School, Brown v. Board of Education National Historic Site. Photograph from http://www.nps.gov/brvb/index.htm.

[66] Ibid.

[67] U.S. Department of the Interior, *Partnering & Managing for Excellence*, 11.

[68] U.S. Government Accountability Office, *Major Operations Funding Trends*, 40.

Although funding levels were not as high as purported to be, new funding for deferred maintenance did come to the park service during this period. Many of the projects publicized by the park service and Administration addressed repair and rehabilitation of historic structures. Figures 12 to 14 depict several historic structures that benefited from Legacy Project deferred maintenance funding.

American Recovery and Reinvestment Act

The American Recovery and Reinvestment Act of 2009—passed in response to the economic recession—provided a "one-time $735 million injection of funds for National Park Service construction and maintenance."[69] This funding, although not a long-term solution to deficits, enabled many deferred maintenance projects. The pre-Recovery Act deferred maintenance backlog was estimated to be just over $9 billion.[70] Recovery Act projects would "provide funding for approximately 9% of the National Park Service backlog."[71] Although the great majority of the backlog remains, this effort represents a serious investment and commitment to renewing America's national parks.

Recovery Act funding was appropriated to three accounts—Construction, Operation of the National Park Service, and Historic Preservation Grants to Historically Black Colleges and

[69] National Parks Second Century Commission, *Second Century Committee Reports*, 77.

[70] Senate Committee on Energy and Natural Resources, Subcommittee on National Parks, *Proposed Fiscal Year 2010 Budget Request for the National Park Service Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*, 111th Cong., 1st sess., June 16, 2009 (Washington, D.C.: Government Printing Office, 2009), 11.

[71] National Parks Second Century Commission, *Second Century Committee Reports*, 77.

Universities.[72] Construction and operation appropriations funded many deferred maintenance projects. $423.2 million was obligated for facility construction to "construct, rehabilitate and replace assets (such as buildings, trails, and wastewater systems) that help preserve natural and cultural sites and provide critical visitor services."[73] A major facility construction activity was to "preserve and repair historical resources."[74] Within the operations appropriation, $113.1 million went specifically to deferred maintenance. This money was appropriated to "invest in repair, rehabilitation and maintenance projects that will restore or extend the life of critical facilities in parks across the country."[75] Chief among these activities was the "stabilization of historic structures."[76]

In addition to historic structures, other deferred maintenance areas benefited as well—primarily trails and roads, which both received significant funding.[77] Recovery Act project selection was based on "shovel-ready" projects. Most of these, by nature, were deferred projects that had been delayed, pending funding. A priority ranking system was used to select projects

[72] U.S. Department of the Interior, National Park Service, *American Recovery and Reinvestment Act of 2009 Program Plan for National Park Service* (Washington, D.C.: U.S. Department of the Interior, National Park Service, 2009), http://recovery.doi.gov/press/wp-content/uploads/2009/05/nps-program-plan-abrev_061809_v2.pdf (accessed November 4, 2009), 12.

[73] Ibid.

[74] Ibid., 21.

[75] Ibid., 13.

[76] Ibid., 50.

[77] Ibid., 13.

from park units.[78] During project selection, the new Facility Condition Index helped significantly, demonstrating the benefits of the asset management program.[79]

Figure 15. Arlington House, the Robert E. Lee Memorial. Photograph from http://www.nps.gov/arho/planyourvisit/images/arho_0679-556w.jpg.

Preservation groups have applauded the Recovery Act. Many deferred maintenance projects were funded on the National Mall and in the greater Washington, D.C. area. For example, Arlington House—the Robert E. Lee Memorial and part of the George Washington Memorial Parkway—received $3 million to complete phase II of an ongoing restoration project (see figure 15). The reflecting pool between the Lincoln and Washington Monument on the National Mall received $30 million for cleaning and rehabilitation (see figure 16). The D.C.

[78] Ibid., 15.

[79] Ibid,, 52.

Preservation League and National Coalition to Save Our Mall both have commended Recovery Act funding. In an interview with *The Washington Post*, "Caroline Cunningham, president of the Trust for the National Mall, said: 'I'm thrilled… It's tremendously important that we… move forward with this deferred maintenance… This infusion of cash is a huge help.'"[80]

Figure 16. Reflecting Pool, National Mall & Memorial Parks. Photograph from National Park Service List of Classified Structures database.

[80] Michael E. Ruane, "Monumental Repair Work Funded for $76.8 Million," *Washington Post*, April 23, 2009, http://www.washingtonpost.com/wp-dyn/content/story/2009/04/22/ST2009042203156.html?sid=ST2009042203156 (accessed June 10, 2010).

The National Trust press release regarding the Recovery Act stated, "We are delighted that historic and cultural sites have received funding throughout the park system… However, we are disappointed the National Park Service did not allocate a larger share of the stimulus funding to help address the deferred maintenance needs of their 27,000 plus historic structures listed on the National Register."[81] To address the needs of all 27,000 structures, a sustained commitment to deferred maintenance is needed. Hopefully this investment represents only the beginning of the Obama Administration's dedication to maintaining and preserving the park service's infrastructure and historic structures.

Conclusion

At the close of the decade, these initiatives—while providing increased funding—have not eliminated the deferred maintenance backlog. In spite of the fact that the new asset management program will provide a better means for monitoring and planning, construction and operational appropriations have not increased significantly to meet cyclical or deferred maintenance demands. Hopefully the momentum generated by Recovery Act projects will bring attention back to deferred maintenance and improving park structure conditions.

[81] Denise Ryan, "National Park Service Stimulus to Help Historic & Cultural Sites," National Trust for Historic Preservation, April 23, 2009, http://blogs.nationaltrust.org/preservationnation/?p=4102 (accessed June 10, 2010).

CHAPTER 5

2016 CENTENNIAL INITIATIVES

Successes and failures of recent efforts aside, the National Park Service's funding shortfalls and deferred maintenance backlog remain. In 2009 it was estimated that the park service budget suffered a $750 million annual shortfall in operational funding and had an $8.4 billion backlog in construction and maintenance projects.[82] The upcoming park service centennial in 2016 provides an excellent opportunity to correct funding deficits and upgrade the condition of park structures. Publicity surrounding the centennial requires that parks be updated both to attract and to accommodate centennial visitors. A plan echoing Mission 66 is needed to restore park units to good condition, and goals for the second century of the park service should seek to solve funding problems and establish maintenance as a priority to prevent a future backlog.

Two campaigns for 2016 have been launched—the National Park Centennial Initiative and the National Parks Second Century Commission. These campaigns outline goals and recommendations for 2016 and the second century. An analysis of these in terms of funding and preservation shows that goals highlight the importance of new and diversified funding sources as well as historic structures, while also seeking to broaden the scope and responsibility of the park service. Improving the condition of current resources while also expanding the role of the park service returns, as always, to the availability of funding. To date, funding for Centennial

[82] National Parks Second Century Commission, *Second Century Committee Reports*, 78.

Initiative projects has been stunted by the recent economic recession and Administration changes. The recent findings of the Second Century Commission, however, may help to reignite federal and public momentum towards 2016.

National Park Centennial Initiative

On August 25, 2006, the 90th anniversary of the formation of the National Park Service, President George W. Bush unveiled a Centennial Initiative: "A vital goal for this country would be to prepare the parks, to guard the parks, to conserve the parks, and to make the parks relevant to the American people in honor of the 100th anniversary."[83] Drawing parallels to the Mission 66 campaign, his plan would provide 10 years of increased financial support for the parks in hopes of readying them for the upcoming centennial.

Centennial financial support would come in two forms: increased discretionary appropriations and formation of a Centennial Challenge Fund. An additional $100 million in operational funding would be appropriated annually through 2016, totaling $1 billion over 10 years. This additional federal funding would, for example, allow parks to hire additional seasonal employees and fund extra maintenance and repair projects. The Centennial Challenge Fund would be a public-private matching program, providing up to $100 million a year in federal funding for park projects if matched by outside donations. In total, increased appropriations and Centennial Challenge project money could potentially provide the National Park Service with $3

[83] U.S. Department of the Interior, National Park Service, *The Future of America's National Parks: A Report to the President of the United States by the Secretary of the Interior Dirk Kempthorne* (Washington, D.C.: Government Printing Office, 2007), http://www.nps.gov/archive/2016 (accessed April 18, 2009), 6.

billion by 2016.[84] However, despite initial goals and park service momentum, Centennial Initiative funding is not on track to total anywhere near $3 billion.

Following announcement of the Centennial Initiative, the Department of the Interior and the National Park Service began planning goals and projects. Public input was solicited through listening sessions across the nation and through online and mail comments. Suggestions were also sought from related non-profit and advocacy groups, current and retired park service employees, members of Congress, and state and local officials. In total, 6,000 comments were received and summarized.[85]

Out of these comments grew five major themes for the Centennial Initiative: Stewardship, Environmental Leadership, Recreational Experience, Education, and Professional Excellence.[86] From these themes, correlating Centennial Challenge goals were developed. In a 2007 report to President Bush, Secretary of the Interior Dirk Kempthorne published five goals:

- Lead America in preserving and restoring treasured resources;
- Demonstrate environmental leadership to the nation;
- Offer superior recreational experiences where visitors explore and enjoy nature and the great outdoors, culture and history;
- Foster exceptional learning opportunities connecting people to parks, especially children and seniors; and
- Achieve management and partnership excellence to match the magnificence of the treasures entrusted to its care.[87]

These overall themes and goals established the course for the Centennial Initiative. Specific performance goals outlined how to achieve larger goals.

---

[84] Ibid.

[85] Ibid., 8.

[86] Ibid., 9.

[87] Ibid., 3.

Within the "Stewardship" theme, two specific performance goals relate to the maintenance and preservation of historic structures. The first, to "rehabilitate high-priority historic buildings to good condition," would by default help fund deferred maintenance projects. The second, to "complete all cultural resource inventories for designated priority resources," would allow the park service to garner better cultural resource data for future planning.[88] Although the language used does not specifically address deferred maintenance, achieving these performance goals would help to quantify and remedy the backlog related to historic structures.

In 2007, concurrently with the development and publication of the Centennial Initiative goals, the Department of the Interior submitted legislation to Congress to establish the Centennial Challenge Fund. Unfortunately, the bill was never enacted and the 10 years of proposed Centennial Challenge funding, therefore, was not guaranteed.[89] Perhaps due to ongoing planning and goal making, the increased operational funding was also not appropriated in 2007. This assured, from the beginning, that the park service would not receive 10 years of additional funding or reach the proposed $3 billion mark by 2016.

The park service did not actually receive Centennial Initiative funding until 2008. In accordance with President Bush's plan, Congress appropriated an extra $100 million for park service operational funding. Within this increased appropriation, $35 million went to cyclical maintenance and $10 million went specifically to historic structures. Due to the failure of the Centennial Challenge Fund Act, the first Challenge Fund money was also included in the 2008

[88] Ibid., 10.

[89] Ibid., 6. Previous attempts at passing a similar Centennial Fund Act failed in earlier Congresses, prior to the Centennial Initiative.

appropriation.[90] Instead of $100 million, $24.6 million in federal Challenge Fund seed money was appropriated. When matched with outside donations, a total of $52 million was available for Centennial Challenge projects.[91] Although this is significantly less than the proposed $200 million annually, many Centennial Challenge projects were still made possible.

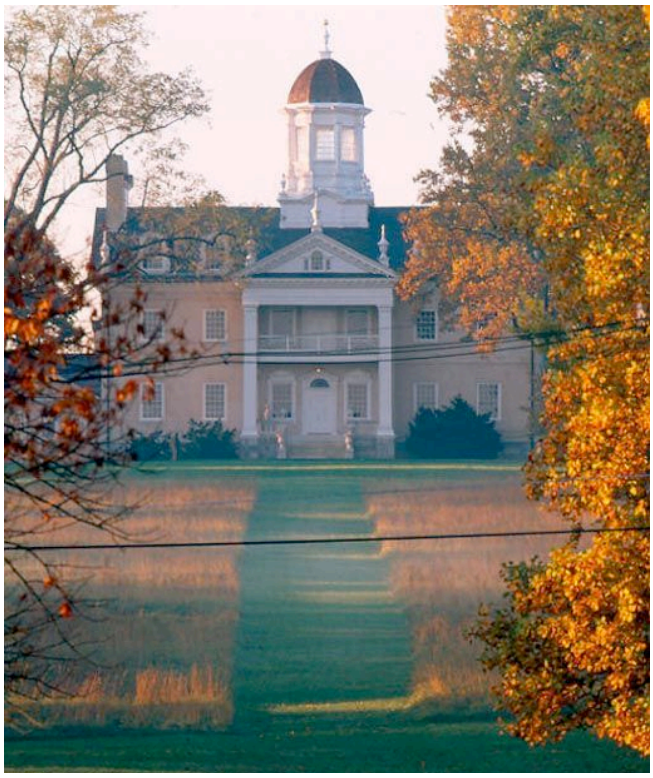

Figure 17. Hampton Mansion, Hampton National Historic Site. Photograph from http://www.nps.gov/ner/pgallerycontent/p/l/20060809103545.JPG.

According to the *National Park Service Centennial Initiative 2008 Progress Report*, the increased operational funding "restored 60 historic structures to good condition" and the

[90] Ibid.

[91] U.S. Department of the Interior, National Park Service, *National Park Service Centennial Initiative: 2008 Progress Report* (Washington, D.C.: Government Printing Office, 2009), #, http://www.nps.gov/archive/2016 (accessed April 18, 2009), 8.

Centennial Challenge "preserved 11 historic buildings."[92] Centennial Challenge money helped preserve the Hampton National Historic Site's Georgian mansion in Maryland (see figure 17). Funds were used to upgrade lighting, restore wall and molding finishes, replace window coverings, and conserve house collection pieces.[93] At the Old State House in Massachusetts' Boston National Historical Park (see figure 18) funds were used to help prevent further storm damage by replacing deteriorated tower siding, repairing tower windows, and installing a new copper roof.[94]

Figure 18. Old State House, Boston National Historical Park. Photograph from http://www.nps.gov/bost/historyculture/osh.htm.

[92] Ibid., 13.

[93] Ibid., 10.

[94] U.S. Department of the Interior, National Park Service, *National Park Service: 2008 Director's Report* (Washington, D.C.: U.S. Department of the Interior, National Park Service, 2008), 23.

In 2009, the full $100 million in Centennial Challenge Fund money was included in an early version of the American Recovery and Reinvestment Act, but later struck out by Congress.[95] For the second year, the extra $100 million in operational funding was appropriated, but accompanied by only $10.5 million for the Centennial Challenge. Combined with $16.5 million in outside donations, Centennial Challenge funding for 2009 totaled only $27 million.[96] Passage of the Recovery Act signified a change in both government and public priorities.

Due to the economic recession, Congress and the Administration were focused on economic stimulus and job creation. Commitment to a public-private matching fund like the Centennial Challenge was unlikely—on either side. Recovery Act projects quickly replaced Challenge Fund projects in the public eye and in park unit goals. Even as some projects continued, the park service focus shifted; on the National Park Service website, the 2016 Centennial page is no longer active and has been moved to the website's archive. 2009 also marked the beginning of the Obama Administration and with it changes in Department of the Interior and National Park Service leadership. Somewhere between new economic priorities and leadership changes, the Centennial Initiative dimmed.

National Parks Second Century Commission

Perhaps in response to the fading Centennial Initiative, a National Parks Second Century Commission was formed and "charged with developing a 21st-century vision for the National

[95] *American Recovery and Reinvestment Act of 2009*, Public Law 111-5, 111th Cong., 1st sess. (February 17, 2009), Title VI.

[96] U.S. Department of the Interior, National Park Service, Office of Communications and Public Affairs, "Centennial Challenge News Release: Nearly $27 million for National Park Centennial Challenge project and programs in 2009," National Park Service, January 13, 2009, http://www.nps.gov/archive/2016 (accessed April 18, 2009), 1.

Park Service and for the magnificent collection of unique places it holds in trust for the American people."[97] This campaign, more so than the Centennial Initiative, was focused on the entire next century of the park service not simply the year 2016. While there is some overlap, the findings of the Second Century Commission are much more long-range in scope.

Established by the non-profit National Parks Conservation Association, the commission was comprised of public and private sector professionals from a range of disciplines. Eight commission committees were formed: Science and Natural Resource; Cultural Resource and Historic Preservation; Education and Learning; Connecting People and Parks; Future Shape of the National Park System; Funding and Budget; Governance; and Capacity. Each committee consulted subject-matter experts from within the National Park Service and the National Parks Conservation Association, as well as from outside agencies, organizations, businesses, and universities.[98] The commission met five times and visited Santa Monica Mountains National Recreation Area, Lowell National Historical Park, Essex National Heritage Area, Yellowstone National Park, Gettysburg National Military Park, and Great Smoky Mountains National Park.[99] In these visits, and in several additional public meetings, commissioners sought input from conservation and preservation experts, National Park Service staff and volunteers, outside park support groups, and the public.[100]

At the end of 2009, after a yearlong commission process, *Advancing the National Park Idea: National Parks Second Century Commission Report* was released accompanied by detailed

[97] National Parks Second Century Commission, *Second Century Commission Report*, 2.

[98] National Parks Second Century Commission, *Second Century Committee Reports*, 3.

[99] National Parks Second Century Commission, *Second Century Commission Report*, 14.

[100] Ibid., 2.

committee reports. The report and its recommendations hope to guide the planning process for the second century of the National Park Service: "Ever since the Yellowstone National Park Act passed in 1872, creating the world's first national park 'for the benefit and enjoyment of the people,' each generation has redefined the role of parks to meet the needs of their times. The commissioners hope that this report will serve as an inspiration and a guide as Americans take up that vital task today."[101] The following recommendations of the Funding and Budget and Cultural Resource and Historic Preservation Committees would influence the deferred maintenance backlog and the condition of historic structures.

Although the Centennial Initiative is not directly related to or cited by the Second Century Commission, the commission and committee reports pick up some of its major ideas. Chief among these is the need for new and expanded funding. The Funding and Budget Committee recognizes that "for decades, budgets for park operations have fallen far short of basic needs, failing to keep pace with either the physical expansion of the system or the growing complexity of its mission."[102] In addition, because the majority of park service funding comes from discretionary appropriations and this funding has been "volatile and unpredictable" long-term planning is difficult.[103] Currently, appropriations and donations primarily focus on short-term needs and goals. The committee argues that funding sources "should be adjusted to genuinely reflect the understanding these special places are meant to be preserved forever."[104]

---

[101] Ibid., 20.

[102]Ibid., 38.

[103] National Parks Second Century Commission, *Second Century Committee Reports,* 77.

[104] National Parks Second Century Commission, *Second Century Commission Report*, 40.

Key to stabilizing the park service budget, the Funding and Budget Committee recommends diversifying funding sources to include new and extended federal appropriations and outside revenues.[105] Several of the committee's recommendations and action ideas would influence monies available for regular and deferred maintenance, although eliminating the deferred maintenance backlog is not a stated goal or recommendation. First, the committee calls for "strengthened and stabilized" federal appropriations, including continuing the extra $100 million in operational funding appropriated in 2008 and 2009 through 2016. Appropriations should "remain the core funding" even while new funding sources are sought.[106] As the recession's effect on the Centennial Challenge Fund proves, donations and other outside funding cannot replace federal dollars. While private donations can help supplement the park service budget, it is paramount that appropriations be strengthened and stabilized. The committee also seeks legislation for additional permanent federal funding sources, such as "expanded oil and gas drilling leases" to help boost federal funding levels.[107] Due to ceilings and budget caps, Congressional appropriations can only be increased so far. Creative ideas, such as the Recreational Fee Demonstration Program, to extend federal funding are needed.

Instead of expanding or improving the Centennial Challenge Fund idea, the Funding and Budget Committee proposes a new model for private donations. The committee asks President Obama and Congress to "initiate a Presidential Centennial Committee to propose and fund an endowment structure to support the Parks and their ecosystems in perpetuity." In addition, the committee calls on President Obama to select a "commission of notable Americans" to lead

---

[105] National Parks Second Century Commission, *Second Century Committee Reports,* 77.

[106] Ibid., 78-79.

[107] Ibid., 79.

national parks fundraising efforts.[108] This Hollywood approach to fundraising would increase publicity and reach new audiences. It is still a difficult time economically to solicit donations, but this model may prove successful in the long run. A permanent funding source outside of the government would help parks plan and budget for the future.

The Second Century Commission also explores avenues for enhancing cultural resources. The National Trust for Historic Preservation was consulted during the commission process, and the findings of the Cultural Resource and Historic Preservation Committee reflect some of the National Trust's preservation concerns. Unfortunately, the findings do not discuss the deferred maintenance backlog or its relation to historic structures. Several recommendations in the committee's report, however, would have indirect effects on the maintenance backlog if implemented.

First, the committee calls for a Cultural Resource Challenge to match the Natural Resource Challenge initiated in 1999.[109] This idea mirrors an earlier report by the National Parks Conservation Association stating that without a matching challenge, "no parallel funding exists to protect cultural resources within our national parks."[110] In fact, there has been a 26% decline in national park cultural resource funding since 1995.[111] The National Trust for Historic Preservation and the National Academy of Public Administration also advocate a Cultural Resource Challenge.[112] The committee's plan would provide the park service with $15 million

---

[108] Ibid.

[109] Ibid., 23.

[110] National Parks Conservation Association, *State of Our National Parks*, 28.

[111] National Parks Second Century Commission, *Second Century Committee Reports,* 23.

[112] National Trust for Historic Preservation, "Statement of the Midwest Office."

by the centennial to produce "a comprehensive report to the Congress and the public outlining a plan to the year 2036 with estimated costs, staffing, and both internal and outsourced activities for cyclic maintenance and other predictable actions to keep park cultural resources managed according to standards derived from law."[113] Establishing a Cultural Resources Challenge would help channel necessary resources and funding towards preservation of historic structures. Having such a plan in place would also hold the park service and Congress accountable for performing cyclical maintenance and eliminating the deferred maintenance backlog.

In order to better manage historic resources, the Cultural Resource and Historic Preservation Committee also recognizes the need for more cultural resource professionals within the park service. Since 1995, there has been a 27% decline in cultural resource staffing. Continual loss of staff and declining budgets has "driven away many well-qualified cultural resource and historic preservation professionals, stifled the creativity of others, and produced an environment of low expectation and lower hope."[114] Park historic structures suffer from poor annual inspections and ongoing monitoring partly because of the need for access to preservation professionals with the skill to complete comprehensive Historic Structure Reports and other more detailed analysis.[115] A larger, higher skilled cultural resource staff is needed.

Preservation trade skills may also be lacking within the park service. Even if preservation maintenance and repair projects were fully funded, preservation trade training and technology may not be adequate to complete the projects. In testimony prepared for the Second

---

[113] Ibid.

[114] Ibid.

[115] National Parks Conservation Association, *State of Our National Parks*, 12.

Century Commission, the National Trust for Historic Preservation stated, "Many parks lack adequate staff to carry out rehabilitation projects or do not have personnel trained in specialized preservation techniques."[116] In response to this problem, the Cultural Resource and Historic Preservation Committee recommends that park service employees "have easy access to the necessary scholarly and scientific studies, technical information, and skills training."[117] The following steps are recommended:

- Carry out, through the National Center for Preservation Technology and Training, a nationwide assessment of needs by parks, programs, and partners for preservation research, technology, and training.
- Ensure coordination of administration, strategic planning, and service delivery of all Service centers of expertise that engage in study, research, technical information, and training.
- Eliminate the long-standing backlog of needed park cultural resource research, inventories, and studies.
- With the Green Building Council, develop "Secretary of the Interior's Standards and Guidelines" that make LEED standards more practicably applicable to the rehabilitation of historic properties; establish related professional accreditation standards for historic preservation professional practitioners.
- Support directed research in historic preservation technology; strengthen Cooperative Ecosystems Study Units (CESU) nationwide to advance historic preservation technology research and training for all who need it.
- Establish a historic preservation conservation trades/crafts training and accreditation program available to Park Service employees and other federal agencies.
- Assure that research and planning related to climate change and other natural environmental considerations (e.g. acid rain, changing cultural landscapes, sea level changes, permafrost melting) are fully applied to cultural resources.[118]

These steps would help assure that cultural resource staff and preservation trade personnel were skilled and qualified to meet second century preservation demands. The first step, a needs

[116] National Trust for Historic Preservation, "Statement of the Midwest Office."

[117] National Parks Second Century Commission, *Second Century Committee Reports,* 25.

[118] Ibid., 25-26.

assessment, would help the park service understand the depth of preservation staffing problems, including how inadequacies relate to deferred maintenance.

The last area in the Second Century Commission's findings related to deferred maintenance and historic structures is land acquisition and the formation of new park units. The commission calls for Congress to "require the preparation of a new plan for the national park system that provides a more representative picture of America, and makes the national parks cornerstones in a network of protected areas that safeguard biological diversity and the nation's evolving cultural heritage."[119] To achieve this, the park service would incorporate more diverse new units and make National Heritage Areas a permanently funded part of the system.[120] The acquisition of new lands and new park units has proved to indirectly affect the maintenance backlog and condition of historic structures by straining the park service budget. Although diversifying the park system is an important preservation goal, it has to be obtained in balance with park service funding. Any new plan for the park system should mandate that park service appropriations increase proportionately with the expansion of the system.

Conclusion

Although both of these initiatives formed worthy goals for the park service centennial and second century, little action is now being taken. Renewed centennial efforts, combining recommendations of the Second Century Commission and integrating input and support from the new Administration and park service leadership, are needed.

---

[119] National Parks Second Century Commission, *Second Century Commission Report*, 42.

[120] Ibid., 23.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

Despite efforts to address deferred maintenance, the backlog has grown over the last decade. The factors contributing to the backlog's growth—insufficient federal appropriations, unsustainable park system growth, aging park infrastructure, and the rising cost of federal mandates—remain unresolved. The Legacy Program and Centennial Initiative demonstrate a lack of commitment and accountability on the part of the Administration, Congress, the Department of the Interior, and the National Park Service. While some progress has been made—financial investment through the Recovery Act and better monitoring via the new asset management program—there is no long-term solution or plan in place. The Second Century Commission report generated many recommendations for cultural resource management and park service funding, but recommendations for better maintenance practices are still needed. Overall, there is currently little action as 2016 approaches.

Now is the time for centennial goal making and implementation. As the success of the Mission 66 campaign proves, eliminating deferred maintenance and restoring historic structures can be an important part of the 2016 agenda. Similar to the 50th anniversary in 1966, increased publicity and visitation should be expected for the centennial. Deferred maintenance must be addressed to meet the needs and expectations of the public. The following recommendations would improve historic structure conditions and cultural resource stewardship for the park service centennial and second century:

1. Fully Fund Cyclical Maintenance
2. Address All National Park Service Funding Problems
3. Eliminate the Deferred Maintenance Backlog
4. Establish a Cultural Resource Initiative
5. Focus on National Park Service History
6. Engage the Public
7. Focus Further Economic Recovery Efforts on Public Works and Conservation
8. Research Alternative Management Models and Practices

1. Fully Fund Cyclical Maintenance

Eliminating deferred maintenance cannot be accomplished without first addressing the funding deficits blocking cyclical maintenance. Focusing on the backlog without improving cyclical maintenance is comparable to treating the symptoms of a virus but not the disease. Fully funding cyclical maintenance (both staff and maintenance needs) should be a major goal. The needs of the aging park infrastructure should be examined and addressed. More money spent on cyclical maintenance now will save money down the line by preventing future deferred maintenance projects. The asset management program now in place should be able to provide park service leadership, Congress, and the Administration with accurate cyclical maintenance funding needs.

2. Address All National Park Service Funding Problems

Operational funding problems—i.e. the rising cost of other federal mandates—should be resolved so that park managers are not forced to make costly trade-offs. Increased cyclical maintenance funding should not result in cuts to other areas, and vice versa. Appropriation levels should rise to adequately fund all mandates and operations, and also reflect the number of park units in the system.

Until the funding and maintenance needs of current national parks are met, any land acquisition or new park unit creation will adversely affect the national park system. Although goals to expand and diversify the system may be realized in time, the first priority should be better management and care for the resources already in the system. Uncontrolled growth is not a benefit to existing park units or future ones.

Within the current park system, there is no replacement for federal funding. Stable, permanently increased federal appropriations are essential. To supplement appropriations, greater donations and additional revenue sources should also be sought. The Obama Administration should renew the Centennial Initiative, incorporating ideas from the Second Century Commission. The failed Centennial Challenge Fund should be replaced with a more permanent endowment and new, creative fundraising strategies. Further research looking at the fundraising practices of successful state, national, and international park conservancy groups could reveal fresh ideas or alternative approaches.

3. Eliminate the Deferred Maintenance Backlog

A new initiative to eliminate the deferred maintenance backlog is needed and, unlike the Legacy Project, there should be greater dedication and accountability. Park service management, Congress, and the Administration need to remain focused and see the initiative through. This is a rare funding opportunity and perhaps the only time a funding commitment of such substantial proportion can be made. A campaign reflecting the agenda and momentum of Mission 66 is needed to eliminate the backlog and repair and rehabilitate national park infrastructure and historic resources for the centennial and beyond.

4. Establish a Cultural Resource Initiative

Deferred maintenance is only one problem facing national park cultural resources today. Some form of the "Cultural Resource Challenge" called for by the Second Century Commission, National Parks Conservation Association, National Trust for Historic Preservation, and National Academy of Public Administration is needed. This initiative should place funding and management of historic resources on par with natural resources. A new cultural resource initiative is necessary to assess the staffing, training, and program needs within parks and to develop a comprehensive plan for the future. Without such an assessment and plan, poor management of historic structures and other cultural resources will continue. This plan should not only address maintenance needs, but also focus on the funding and skills needed to prevent a future backlog and maintain historic structures in optimum condition. The park service is the federal government's leading preservation authority, and its management of historic resources should reflect that.

5. Focus on National Park Service History

Centennial efforts should also focus on the history of the National Park Service itself. Preservation goals should highlight the national park story. The 50th anniversary of Mission 66 should be interpreted and celebrated, and Mission 66 structures should be evaluated for historic significance. Aging park infrastructure contributes to the growth of the deferred maintenance backlog; this is the time to pay close attention to the health of Mission 66 infrastructure. A focus on park service history would easily fit into centennial goals, and would help serve as a publicity and fundraising tool. Highlighting the role of preservation in the park service would hold the

park service accountable for maintaining better cultural resource stewardship and management practices.

6. Engage the Public

Citizens and non-governmental organizations are responsible for monitoring the actions of Congress and the Administration. Often, it is these voices that finally focus federal attention on national conditions. Without proper education and awareness of deferred maintenance and the plight of historic resources in the park service, the public will not be compelled to advocate for change. Local, state, and national preservation and conservation organizations should focus on public education and awareness, thereby mobilizing support for park service historic resources. Further research investigating existing park conservancy groups and successful park non-profit lobbying efforts could reveal helpful models for public engagement.

7. Focus Further Economic Recovery Efforts on Public Works and Conservation

The one-time funding provided through the Recovery Act provided a much-needed boost in maintenance funding. However, neither economic recovery nor elimination of deferred maintenance has been achieved. New economic recovery efforts should focus on the park service and other federal agencies to eliminate the government-wide maintenance backlog. In addition to funding backlogged projects, Congress and the Administration should consider creation of a new public works and/or conservation corps program. Such a program would create new jobs, and help sustain federal sites for perpetuity.

8. Research Alternative Management Models and Practices

Park organizations in other countries, as well as non-federal groups in America, may be facing similar deferred maintenance problems. A study to reveal "best practices" for management and maintenance could illuminate new strategies for combating deferred maintenance in America's national parks. Even within the National Park Service, some park units may be addressing deferred maintenance more successfully than others. An analysis of successful maintenance practices at specific park units could generate transferable strategies for other parks in the system.

Conclusion

National Park Service history illustrates a cycle of chronic underfunding followed by major investment and construction—first New Deal programs and later Mission 66. It is time for another major investment, but also for a sustained commitment to national parks breaking the cycle of inadequate funding and maintenance. 2016 should be the catalyst for eliminating the deferred maintenance backlog and rejuvenating the National Park Service and its resources.

BIBLIOGRAPHY

American Recovery and Reinvestment Act of 2009. Public Law 111-5. 111th Cong., 1st sess. February 17, 2009.

Carr, Ethan. *Mission 66: Modernism and the National Park Dilemma*. Amherst: University of Massachusetts Press in association with Library of American Landscape History, 2007.

Giammo, Jim. *Budget Considerations*. National Parks Second Century Commission, 2009. http://www.visionfortheparks.org/resources/budget.pdf (accessed November 3, 2009).

Helsel, Andrea Keller, Kate Himot, Scott Kirkwood, and Amy M. Leinbach. *Faded Glory: Top 10 Reasons to Reinvest in America's National Park Heritage*. National Parks Conservation Association, 2005. http://www.npca.org/what_we_do/ten_most_ endangered/2005/TenReasons.pdf (accessed May 2, 2010).

National Parks Conservation Association. *The Burgeoning Backlog: A Report on the Maintenance Backlog in America's National Parks*. National Parks Conservation Association, 2004. http://www.npca.org/what_we_do/visitor_experience/backlog/ backlog.pdf (accessed August 31, 2009).

National Parks Conservation Association. *The State of Our National Parks: A Resources Index*. National Parks Conservation Association, 2008. http://www.npca.org/stateoftheparks/npri /NPRI-web.pdf (accessed August 31, 2009).

National Parks Conservation Association. *Working Assets: Reinvesting in National Parks to Create Jobs and Protect America's Heritage*. National Parks Conservation Association, 2009. http://www.npca.org/media_center/pdf/stimulus_report-dec_16.pdf (accessed November 3, 2009).

National Parks Second Century Commission. *Advancing the National Park Idea: National Parks Second Century Commission Report*. National Parks Conservation Association, 2009. http://www.npca.org/commission/pdf/Commission_Report.PDF (accessed September 29, 2009).

National Parks Second Century Commission. *Advancing the National Park Idea: National Parks Second Century Committee Reports*. National Parks Conservation Association, 2009. http://www.npca.org/commission/pdf/Committee_Report.PDF (accessed November 3, 2009).

National Trust for Historic Preservation. "11 Most Endangered: Historic Structures in Glacier National Park." National Trust for Historic Preservation. 1996. http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/historic-structures-in-glacier-national-park.html (accessed June 10, 2010).

National Trust for Historic Preservation. "11 Most Endangered: Mesa Verde National Park." National Trust for Historic Preservation. 1998. http://www.preservationnation.org/travel-and-sites/sites/mountains-plains-region/mesa-verde-national-park.html (accessed June 10, 2010).

National Trust for Historic Preservation. "Statement of the Midwest Office of the National Trust for Historic Preservation." National Trust for Historic Preservation. http://www.preservationnation.org/issues/public-lands/national-park-service/testimonies-for-second-century-commission/statement-of-the-midwest-1.html (accessed June 10, 2010).

Rettie, Dwight F. *Our National Park System: Caring for America's Greatest Natural and Historic Treasures*. Urbana: University of Illinois Press, 1995.

Ruane, Michael E. "America's Unkempt Front Yard: Park Service Says Mall Needs $350 Million in Deferred Maintenance." *Washington Post.* June 18, 2008. http://www.washingtonpost.com/wp-dyn/content/article/2008/06/17/AR2008061702787.html (accessed June 10, 2010).

Ruane, Michael E. "Monumental Repair Work Funded for $76.8 Million." *Washington Post.* April 23, 2009. http://www.washingtonpost.com/wp-dyn/content/story/2009/04/22/ST2009042203156.html?sid=ST2009042203156 (accessed June 10, 2010).

Ryan, Denise. "National Park Service Stimulus to Help Historic & Cultural Sites." National Trust for Historic Preservation. April 23, 2009. http://blogs.nationaltrust.org/preservationnation/?p=4102 (accessed June 10, 2010).

Stipe, Robert E., ed. *A Richer Heritage: Historic Preservation in the Twenty-First Century*. Chapel Hill: University of North Carolina Press, 2003.

Tiller, de Teel Patterson. *Cultural Resource Management and Heritage Preservation*. National Parks Second Century Commission, 2009. http://www.visionfortheparks.org/resources/cultural-resources.pdf (accessed November 3, 2009).

U.S. Congress. House. Committee on Government Reform. Subcommittee on Criminal Justice, Drug Policy, and Human Resources. *The National Parks: Will They Survive for Future Generations?: Hearing before the Subcommittee on Criminal Justice, Drug Policy, and Human Resources of the Committee on Government Reform*. 109th Cong., 1st sess., April 22, 2005. Washington, D.C.: Government Printing Office, 2005.

U.S. Congress. House. Committee on Resources. Subcommittee on National Parks, Recreation, and Public Lands. *The Impact Land Acquisition Has on the National Park Service Maintenance Backlog, Park Service Management Priorities, and Local Communities: Oversight Field Hearing before the Subcommittee on National Parks, Recreation, and Public Lands of the Committee on Resources.* 108th Cong., 1st sess., September 27, 2003. Washington, D.C.: Government Printing Office, 2004.

U.S. Congress. Senate. Committee on Energy and Natural Resources. Subcommittee on National Parks. *National Parks Backlog: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*. 108th Cong., 1st sess., July 8, 2003. Washington, D.C.: Government Printing Office, 2003.

U.S. Congress. Senate. Committee on Energy and Natural Resources. Subcommittee on National Parks. *The National Park Service's Funding Needs: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*. 109th Cong., 1st sess., May 10, 2005. Washington, D.C.: Government Printing Office, 2005.

U.S. Congress. Senate. Committee on Energy and Natural Resources. Subcommittee on National Parks. *NPS Operation and Management: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources.* 109th Cong., 1st sess., July 14, 2005. Washington, D.C.: Government Printing Office, 2005.

U.S. Congress. Senate. Committee on Energy and Natural Resources. Subcommittee on National Parks. *Proposed Fiscal Year 2007 Budget Request for the National Park Service: Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*. 109th Cong., 2d sess., March 14, 2006. Washington, D.C.: Government Printing Office, 2006.

U.S. Congress. Senate. Committee on Energy and Natural Resources. Subcommittee on National Parks. *Proposed Fiscal Year 2010 Budget Request for the National Park Service Hearing before the Subcommittee on National Parks of the Committee on Energy and Natural Resources*. 111th Cong., 1st sess., June 16, 2009. Washington, D.C.: Government Printing Office, 2009.

U.S. Department of the Interior. National Park Service. *America's National Parks Investing to Preserve Their Future*. Washington, D.C.: Government Printing Office, 2004. http://purl.access.gpo.gov/GPO/LPS71166 (accessed January 13, 2010).

U.S. Department of the Interior. National Park Service. *American Recovery and Reinvestment Act of 2009 Program Plan for National Park Service*. Washington, D.C.: U.S. Department of the Interior, National Park Service, 2009. http://recovery.doi.gov/press/wp-content/uploads/2009/05/nps-program-plan-abrev_061809_v2.pdf (accessed November 4, 2009).

U.S. Department of the Interior. National Park Service. Office of Communications and Public Affairs. "Centennial Challenge News Release: Nearly $27 million for National Park

Centennial Challenge project and programs in 2009." National Park Service. January 13, 2009. http://www.nps.gov/archive/2016 (accessed April 18, 2009).

U.S. Department of the Interior. National Park Service. *The Future of America's National Parks: A Report to the President of the United States by the Secretary of the Interior Dirk Kempthorne*. Washington, D.C.: Government Printing Office, 2007. http://www.nps.gov/archive/2016 (accessed April 18, 2009).

U.S. Department of the Interior. National Park Service. *National Park Service: 2008 Director's Report*. Washington, D.C.: U.S. Department of the Interior, National Park Service, 2008.

U.S. Department of the Interior. National Park Service. *National Park Service Centennial Initiative: 2008 Progress Report*. Washington, D.C.: Government Printing Office, 2009. http://www.nps.gov/archive/2016 (accessed April 18, 2009).

U.S. Department of the Interior. National Park Service. *National Park Service Partnering & Managing for Excellence*. Washington, D.C.: Government Printing Office, 2003. http://purl.access.gpo.gov/GPO/LPS76248 (accessed September 3, 2009).

U.S. General Accounting Office. *National Park Service Efforts Underway to Address Its Maintenance Backlog* by Barry T. Hill. Washington, D.C.: U.S. General Accounting Office, 2003. http://purl.access.gpo.gov/GPO/LPS38104 (accessed September 2, 2009).

U.S. Government Accountability Office. *Department of the Interior Major Management Challenges: Testimony before the Subcommittee on Interior, Environment, and Related Agencies, Committee on Appropriations, House of Representatives* by Robin Nazzaro and Frank Rusco. Washington, D.C.: U.S. Government Accountability Office, 2009. http://purl.access.gpo.gov/GPO/LPS113417 (accessed September 3, 2009).

U.S. Government Accountability Office. National Park Service Major Operations Funding Trends and How Selected Park Units Responded to Those Trends for Fiscal Years 2001 through 2005: Report to Congressional Requesters. Washington, D.C.: U.S. Government Accountability Office, 2006. http://purl.access.gpo.gov/GPO/LPS70470 (accessed September 2, 2009).

White House. Office of the Press Secretary. "The National Parks Legacy Project." White House. May 30, 2001. http://georgewbush-whitehouse.archives.gov/news/releases/2001/05/20010530-2.html (accessed September 2, 2009).