

# The Federal Lands Highway Program

*2011*

*The Year in Review*



*From the desk of the Associate Administrator*

*As we celebrate our accomplishments for the past year, I want to take this opportunity to express my own thanks to the entire Federal Lands Highway family for the incredible journey and for the excellent work that is done every day. As Associate Administrator I have been in a unique position to see and work with all parts of the organization on a wide range of issues. Let me offer a few observations about the way in which we do our business.*

*First of all, the Federal Lands Highway (FLH) organization is passionate about its mission to deliver the best transportation services to our partners, services that provide access to America's treasures. That passion is reflected in the positive feedback we receive for the work we deliver, from the appreciation tribal governments have of us in administering a quality program, and in the enthusiasm I see from folks when I ask them what they do or what they've accomplished.*


*Second, FLH is committed to quality. We are continually challenging ourselves to find a better way, a more efficient process, a more creative solution. This commitment to quality is in part a reflection of the heritage of the organization and the desire to achieve the next level of accomplishment. It is also a reflection of the investment in discipline expertise and being the leaders in our respective fields.*

*Third, FLH makes leadership development a part of its core philosophy and values. I have seen several future leaders emerge from FLH and rise within FLH and FHWA. This is not by chance, but rather is the result of an environment that actively supports and encourages personal growth, and that creates opportunities to become leaders from anywhere in the organization. The FLH focus on leadership will serve us well as we plan our future.*

*Congratulations on another year of success for the FLH organization, and thanks to everyone who contributed to its success through your passion, commitment to quality, and leadership.*



*John Baxter speaking at the Grand Canyon National Park, Mather Point Opening Ceremony in June 2011*

  
**John R. Baxter, P.E.**  
Associate Administrator for  
Office of Federal Lands Highway

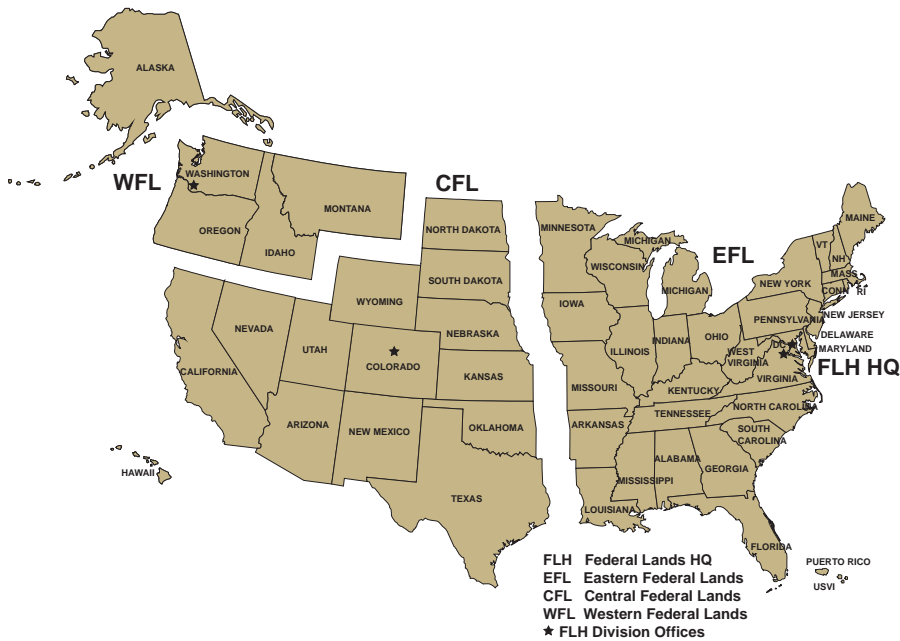
# The Federal Lands Highway Program

## 2011

### The Year in Review

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U.S. Department of Transportation  
Federal Highway Administration  
Office of Federal Lands Highway

*Front Cover: Gibbon Falls Overlook Parking Area, Grand Loop Road, Yellowstone National Park, Wyoming (see Project Summary page 17)*

*Back Cover: Cades Cove Loop Road, Great Smoky Mountains National Park, Tennessee (see Project Summary page 16)*



## **Vision**

Create the best transportation system  
in **balance** with the values of  
Federal and Tribal lands.

## **Mission**

**Improving** transportation  
to and within Federal and Tribal Lands  
and **providing** technical services  
to the highway community.

*View from Beartooth Highway, Wyoming*

## Our Role

The Federal Highway Administration's (FHWA) Office of Federal Lands Highway (FLH) is well-known for delivering projects that meet the varied needs of our many partners. We are relied upon to solve and manage unique challenges in environmentally sensitive locations through engineering solutions that are sensitive to the context of the land. Whether it is building highly visible and politically sensitive projects, constructing roads that are national landmarks, or providing critical access on low-volume transportation facilities, FLH is at the forefront of consistently delivering distinct, sensitive and sound engineering projects.

The Federal Government, through various Federal Land Management Agencies (FLMA's): the **National Park Service (NPS)**; **USDA Forest Service (Forest Service)**; **U.S. Fish and Wildlife Service (USFWS)**; **Bureau of Indian Affairs (BIA) and Tribal Governments**; **Bureau of Land Management (BLM)**; **Department of Defense (DOD)**; **U.S. Army Corps of Engineers (USACE)**; and **Bureau of Reclamation (BOR)**, have ownership responsibilities for more than 30% of the Nation's land. This responsibility covers more than 500,000 miles of public and administrative roads across the U.S. and its island territories.

Since 1914, FLH has assisted these Federal partners in the design and construction of aesthetically pleasing and environmentally sensitive highway and bridge projects, including the original design and construction of many of this Nation's national park and forest roads. Congress established the Federal Lands Highway Program (FLHP) in 1982 to promote effective, efficient, and reliable administration for a coordinated program of public roads and bridges; protect and enhance our Nation's natural resources; and provide needed transportation access for Native Americans. Now in its 30th year, the program and our role have continued to expand to include more Federal partners and road networks. FLH expertise and credibility has grown to deliver a wider variety of transportation projects and improvements nationwide.



*Tombigbee National Forest, Mississippi*

### *We are responsible for:*

- **Transportation Planning**
- **Program Administration**
- **Project Management**
- **Environmental Compliance**
- **Preparation of Plans, Specifications and Estimates**
- **Contract Administration**
- **Construction Supervision and Inspection**
- **Technical Assistance to the Highway Community**

### *Our engineering and technical expertise includes:*

- **Highway and Bridge Design**
- **Survey and Mapping**
- **Hydraulics**
- **Geotechnical**
- **Traffic**
- **Safety**
- **Intelligent Transportation Systems**
- **Design Visualization**
- **Materials**
- **Consultant and Construction Contract Acquisition**
- **Road and Bridge Inventory and Inspection**
- **Asset Management**

*We employ principles and techniques of the FHWA Every Day Counts Initiative (EDC), designed to identify and deploy innovation aimed at shortening project delivery, enhancing safety, and protecting the environment in our daily business:*

- **Safety Edge**
- **Warm-Mix Asphalt**
- **Geosynthetic Reinforced Soil**
- **Prefabricated Bridge Structures and Elements**
- **Design-Build**
- **Construction Manager/General Contractor (CMGC)**
- **Project Streamlining through Collaboration**

## Highlights

Passion, quality, and leadership exemplify the accomplishments of Federal Lands Highway (FLH) in Fiscal Year (FY) 2011, again, an outstanding year in terms of program accomplishment and productivity. These attributes will be necessary in facing likely challenges with surface transportation reauthorization legislation.

Global and natural events in 2011 have affected America's recovery effort and its outlook for transportation legislation. Modest job and construction growth, helped in part by the American Recovery and Reinvestment Act of 2009 (Recovery Act), have slightly improved a struggling economy. A scaled-back war effort and defense spending will bring our troops home, but will further demand a need for good jobs. An increase in natural disasters, especially tornadoes and flooding, emphasize our continuing need for emergency preparedness and disaster response. Yet a political standstill in Congress and an upcoming presidential election year leave cautious optimism and uncertainty for future transportation legislation.

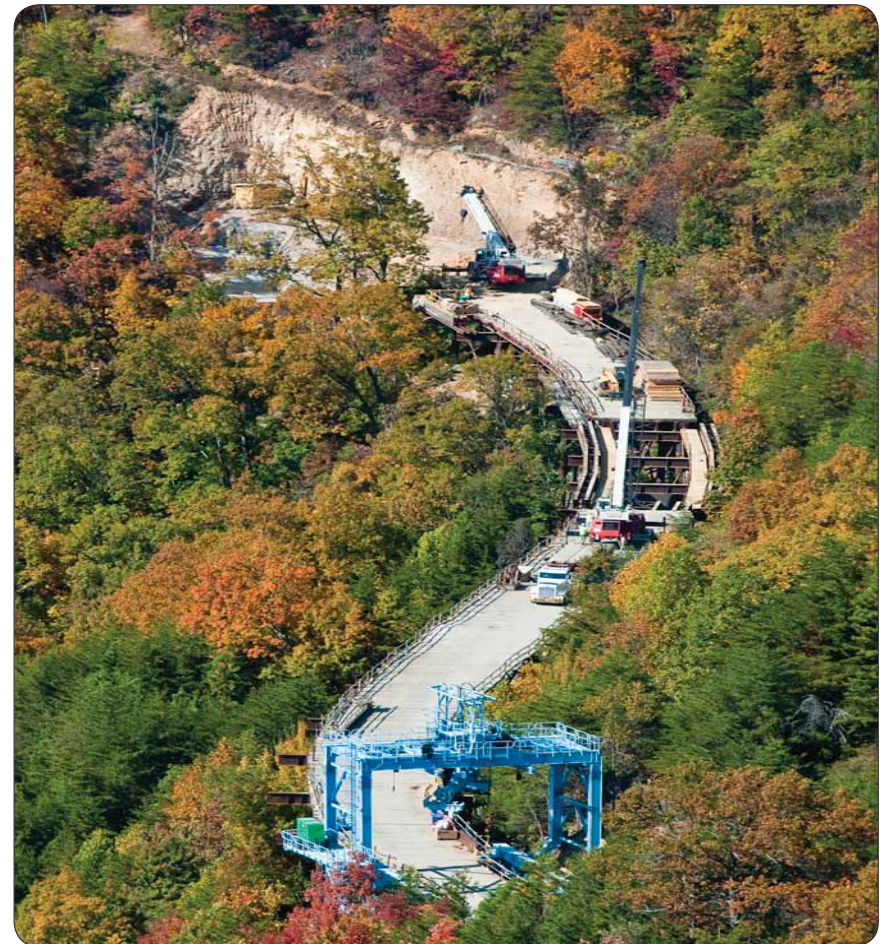
Despite the events of America's 2011, the Department of Transportation (DOT), Federal Highway Administration (FHWA), and FLH must position themselves to continue assisting America with improving the economy, rebuilding the infrastructure, generating new jobs, and ensuring that public funds are well spent. Through these attributes of passion, quality and leadership, FLH projects and staff have distinguished themselves in many ways this last year.

### *Our Passion — Delivering the Best Transportation Services to our Partners*

**Quality of Life** — In October 2011, FLH concluded a 14-year effort, in cooperation with the Metlakatla Indian Community, the Bureau of Indian Affairs (BIA), and the U.S. Military-Joint Task Force (JTF), to design and construct the 14-mile **Walden Point Road** on Annette Island, Alaska. With FLHs' assistance, JTF conducted and trained over 11,000 troops in all aspects of military operations including road and bridge construction in support of the community. The FLH Project Engineer, Dan Reid, became a mentor and role model for the young soldiers, Metlakatla, and FHWA employees on design, survey, and construction techniques. The road enhances the quality of life by providing a year-round, reliable multi-modal access to Ketchikan for services, products, employment, and health care.

**Partnership** — FLH was honored by the Fairfax County Government and the National Geospatial Intelligence Agency with *Team Excellence* and *Star Partner Awards* for the **Fairfax County Parkway BRAC** Team in recognition of outstanding interdisciplinary team effort, exemplary design and construction management, and extraordinary support to the partners. In response to one of the largest land development actions in Fairfax County resulting from the 2005 Base Realignment and Closure Act (BRAC), the Team developed and executed a countywide mitigation program to address the impacts of over 19,000 workers relocating to Fort Belvoir. President Obama was so impressed with the Team's work on BRAC, he has made several project visits to recognize the success.

**The "Missing Link"** — The National Park Service (NPS) was authorized in 1944 to build the **Foothills Parkway** in Tennessee. However, a 1.65-mile segment of the Parkway, the "missing link," remained unconstructed because of cost, complexity, and environmental sensitivity. Located in the Great Smoky Mountains National Park, two design-build projects to construct bridges, roadway, drainage and retaining walls are underway. Presented with multiple engineering challenges working on pristine mountain slopes with limited access, the projects include the most difficult and signature Parkway structure, Bridge 2, an 825-foot, precast segmental structure on an S-curve. The completion will open a 16-mile segment of Parkway that has never been opened to traffic since the 1980s, in time for the 2016 NPS Centennial celebration!



## Highlights

### *Our Quality — Finding a Better Way*

**World-Class** — Last year's completion of the world-class **Hoover Dam Bypass, Mike O'Callaghan–Pat Tillman Memorial Bridge** garnered national and international recognition from eleven prestigious organizations, including the *American Segmental Bridge Institute, Award of Excellence; the American Public Works Association, Project of the Year; and the International Bridge Conference, Eugene C. Figg Medal*, to name just a few. We are especially proud that the FHWA recognized **Dave Zanetell, Director of Project Delivery**, with the *2011 FHWA Engineer of the Year* for his outstanding achievement for project and contract management.



**Environmental Excellence** — In July 2000, wildfires destroyed a 90-foot section of the 270-foot timber bridge along the **Bizz Johnson National Recreation Trail** in the Lassen National Forest. Through a fast tracked delivery this completed project restored the historical character and functionality of the most impressive bridge on the 30-mile Trail in time for the annual Bizz Johnson Marathon. The design included dedicated bicycle and pedestrian access across the Susan River on the original railroad alignment. To accommodate trail users with disabilities the bridge decking was designed for wheelchairs and horse drawn carriages. Because of its unique design and functionality, the project was awarded the *2011 FHWA National Environmental Excellence Award*.



**Improving Government** — Meritalk, an online community network of government Information Technology (IT) professionals, sponsors a merit award for ideas to improve the quality of Government based on innovative thinking, potential savings, and ease of implementation. **Aung Gye, Transportation Planning Team Leader**, submitted the winning entry for his idea to create a centralized national database to catalog assets to ensure full use among Government agencies. His entry was selected from more than 1,000 worldwide.

## Highlights

### *Our Leadership — Part of our Core Philosophy*

**Innovative Contracting** — FLH continues its leadership within FHWA in testing new contracting techniques to add to its capabilities for successful delivery. In light of the Every Day Counts (EDC) Initiative, FLH awarded its first Construction Manager/General Contractor (CMGC) contract to deliver the **Point Bonita Lighthouse Bridge** project, to replace an historic suspension bridge within the Golden Gate National Recreation Area in San Francisco for the U.S. Coast Guard and NPS. The uniqueness of a suspension bridge, site access, construction materials, and environmental concerns all made CMGC a practical and sure method to ensure project delivery.



**Reauthorization** — As the Administration began to craft surface transportation policy in conjunction with the FY 2012 budget, FLH lead the effort to consolidate and update the “Federal Allocation Programs,” in particular the Federal Lands Highway Program (FLHP). The Administration proposed to restructure the FLHP into the Federal Lands Transportation Program, the Federal Lands Access Program (FLAP), and the Tribal Transportation Program. These programs expand eligibility and programs to the Bureau of Land Management, USDA Forest Service, and the U.S. Army Corps of Engineers, and allocate funds through a discretionary process based on performance management principles. FLH conducted extensive outreach with partners and provided technical assistance to Congress in support of the proposal.

**Personal Initiative** — The FHWA Leadership Award recognizes individuals for the personal initiative they take beyond their job requirements and for their dedication to making positive change. **Walt Stong, Materials Lab Team Leader**, demonstrated exceptional initiative, leadership and accountability in the FLH Western Division materials lab by revising the lab quality manual and creating quick reference guides to prepare lab personnel for ISO re-accreditation, resulting in the highest ratings ever received, rejuvenating morale and generating a sense of ownership among staff.

### *Our Program*

FLH goals and resources are focused on fulfilling our Vision and Mission and on our strategic alignment with the four FHWA Goals: National Leadership; Program Delivery; System Performance; and Corporate Capacity. FLH identified key initiatives and measures of success for each goal at the various levels of the organization. Under each goal area, FLH identified National Performance Objectives, performance measures that help us define success, and initiatives to support the objectives. In combination, they serve to support the delivery of our program and utilized carefully to track results, monitor progress, and identify ways to strengthen the effectiveness of the Program.

As we developed our objectives and initiatives, we considered feedback and suggestions from employees and partners, risk assessments, employee and customer surveys, recommendations from program reviews, and the agency’s Strategic Implementation Plan. We sought opportunities to support the Administration’s priorities including safety, innovation, environmental sustainability, livability and economic growth as well as “Every Day Counts.” We were especially mindful of the extra level of effort required to deliver the Recovery Act as well as our core program and other Non Title 23 work.

In FY 2011 FLH delivered one of its most significant programs ever in terms of the overall program, projects and specific accomplishments. We have further highlighted these impressive accomplishments as follows:

**Recovery Act** — FY 2011 was a busy year for advancing Recovery Act projects. The 2009 legislation required that we place a priority on projects that could be completed within two years. Of the 621 Recovery Act projects awarded (Title 23 and Title 16), FLH had expended 87 percent of the funding and fully completed 59 percent of the projects by the end of FY 2011. The remaining projects will be substantially completed and remaining money should be fully expended by the end of FY 2012. One thing both Congress and our partners should feel certain of based on our Recovery Act delivery — FLH is capable of delivering a larger program.





## Highlights

**TIGER** — As part of the Recovery Act, the DOT launched the TIGER (Transportation Investment Generating Economic Recovery) Discretionary Grant Program to spur a national competition for innovative, multi-modal and multi-jurisdictional transportation projects that promise economic and environmental benefits to an entire metropolitan area, region or the nation. FLH contributed to this important program, obligating \$203 million in FY 2011 with the delivery of three oversight projects for the **National Gateway Corridor** railroad project and the **Crescent Corridor** regional intermodal railroad facilities in Memphis, Tennessee and Birmingham, Alabama.



**Indian Reservation Roads (IRR) Program** — FLH substantially increased the Program's obligation rate. Of the available IRR funds (\$499 million), 96 percent were obligated by the BIA, FLH, and tribal governments. This increase is attributed to many reasons. Seventeen additional tribal governments entered into direct funding agreements with FHWA, to administer their portion of the IRR program. The BIA developed and implemented their own version of a direct-funding agreement for the BIA Tribes, allowing for the immediate transfer of funding to the Tribes with BIA stewardship and oversight. FLH's stewardship and oversight of the IRR program funding was further enhanced by updating the *Tribal Transportation Program Delivery Guide*, providing procedural guidance to eligible Tribes entering into Program Agreements with either FHWA or BIA, and assisting the tribal governments in the administration of the IRR program. IRR program reviews were conducted for four BIA Regional offices and five Tribes operating under FHWA Program Agreements. These program reviews helped to enhance the IRR project delivery processes, ensure efficient and effective administration and delivery of the program, and identify best practices.



**Program** — Together, the FLH Divisions awarded 110 construction contracts, totaling \$516 million, distributed among the partner agencies and States in 2011. Both FLH Division and IRR Program awarded projects will improve 3655 lane miles of road and 91 new or rehabilitated bridges on federal and tribal land nationwide.

The FLH Divisions completed 104 construction projects, totaling \$1.27 billion. These projects and those delivered through the IRR program improved 4055 lane miles of road and 110 new or rehabilitated bridges.

FLH had authority to spend over \$1.88 billion on transportation improvements among FLH Program funds, other Title 23 and non-Title 23 funds. Of the almost \$1.2 billion authorized in FLHP funds, 39.8% were for the IRR program; 18.6% for the Park Roads and Parkways Program; 19.8% for the Forest Highway Program; 19.0% for the Public Lands Highway Discretionary Program; and 2.7% were for the Refuge Roads Program. Our total funding supported 429 active design projects totaling \$1.93 billion and 347 active construction projects totaling \$2.08 billion.

We are especially pleased to note that of all funds obligated, 59% of those funds were leveraged funds, funds obligated in addition to our normal program. Our partners also helped FLH achieve an 86.2% customer satisfaction score, our highest ever!

The 2011 Annual Report — The Year in Review, is our summary of accomplishments; an assessment of our organizational health and a testament to the importance we place in our role as stewards of public funds.

## Overview of Program & Funding

### The Core Program

Federal Lands' role includes stewardship and oversight responsibility for the Highway Trust Fund dollars that fund the Program, totaling over \$1 billion per year through the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

FLH has two mission areas, Program Administration and Program Delivery. Program Administration addresses FLH's stewardship and oversight responsibilities for our resources, both human and monetary, and encompasses many critical functional areas, including but not limited to, acquisition, planning and programming, financial management, and information technology. Program Administration provides management and oversight of the program.

FLH is entrusted with many different types of funds. The majority are authorizations through DOTs transportation legislation, specifically Title 23, Section 204, which is the FLHP.

### Funding Categories

The FLHP funding categories are as follows: Indian Reservation Roads and Bridge Programs; Park Roads and Parkways Program; Public Lands Highway Program: Forest Highways; and Public Lands Highway Discretionary; and the Refuge Roads Program.

**The Indian Reservation Roads (IRR) Program** provides funding which may be used by Indian tribal governments, the Bureau of Indian Affairs (BIA), and the FHWA for the planning, design, construction, or reconstruction of designated public roads that provide access to or within an Indian reservation, Tribal lands, Indian communities, and Alaska native villages. The IRR Bridge Program (IRRBP) was established as a set aside within the IRR program to fund bridge replacement or rehabilitation and to also provide funding for design.

The IRR program is the largest of the FLH Programs, established in 23 U.S.C. 204 to address the transportation needs of Tribal Governments throughout the United States. A prime objective of the IRR program is to contribute to the economic development, self-determination, and employment of Indians and Native Americans.

**The Park Roads and Parkways (PRP) Program** provides funding which may be used by the National Park Service (NPS) and FHWA for planning, design, construction, or reconstruction of designated public roads that provide access to, or within, National Parks, recreation areas, historic areas, and other units of the National Park System. The Park Road System consists of 8,000+ miles of public roads owned by the NPS.

**The Public Lands Highway (PLH) Program** allows for the use of funds for construction and transportation planning activities. There are two components of this program, namely the Forest Highway (FH) Program and the PLH Discretionary Program. The Forest Highway Program is used by the States, Forest Service, and FHWA for planning, design, construction, or reconstruction of designated public roads that provide access to, through, or within National Forests. Thirty-four percent of the PLH category funds, as reflected in SAFETEA-LU, are available for the PLH Discretionary Program. FHWA solicits for candidates and selects projects for funding based on applications received for this program. Sixty-six percent of PLH funds are available for the FH program. Approximately 29,000 miles of State, local and federally-owned public roads are designated as Forest Highways.

**The Refuge Roads (RRP) Program**, first authorized in 1998, provides funds for the maintenance and improvement of public roads that provide access to/ or within, a unit of the National Wildlife Refuge (NWR) System. The USFWS manages and maintains approximately 4,800 miles (paved and unpaved) of public use roads, 87 public use bridges, and over 5,400 miles of roads for administrative use.

**Other Title 23 Authority Funding** — FLH administers additional important transportation funds from programs outside the core FLHP. FLH-related programs in which we receive and manage transportation appropriations governed by the U.S.C. Title 23 include Emergency Relief for Federally Owned Roads (ERFO), Federal-aid funding from states, special congressional appropriations, and other programs.

**Emergency Relief for Federally Owned Roads (ERFO)** — FLH also administers the ERFO Program. The intent of the ERFO Program is to help pay the unusually heavy expenses associated with the repair and reconstruction of Federal roads and bridges seriously damaged by a natural disaster over a wide area. Restoration in-kind to pre-disaster conditions is the predominate type of repair. The ERFO Program provides assistance for roads that have been defined as Federal roads; forest highways, forest development roads, park roads and parkways, Indian reservation roads, refuge roads, public lands highways, and public lands development roads.

**Non Title 23 Authority Funding** — The FLH is also authorized to administer Defense Access Road (DAR) & Air Force Operations and Maintenance (O&M) in cooperation with the Department of Defense.

The DAR Program provides a means for the military to pay the cost of public highway improvements necessary to mitigate an unusual impact of a defense activity. An unusual impact could be a significant increase in personnel at a military installation relocation of an access gate, or the deployment of an oversized or overweight vehicle or transporter unit.

## Overview of Program & Funding

The Department of Defense also provides O&M funds to States having gravel-surfaced roads that support the Minuteman Missile System. O&M funds are allocated based upon needs identified by the Air Force in cooperation with the States and the FHWA. When requested by States, projects are designed, constructed and administered directly by the FLH Divisions.

The FLH may also receive other Federal, state, or local funding to support a new project or leverage additional funds for a Title 23 funded project.

Accomplishments — FLH Program and Non-FLH Program						
Programs	Funding	Obligations	Construction Contracts Awarded	Lane Miles Constructed	Bridges Constructed or Improved	Construction Projects Awarded
FLH – Indian Reservation Roads	\$464,514,962	\$458,034,266	Not Available	2106	62	Not Available
FLH – Park Roads and Parkways	\$223,522,805	\$221,181,012	36	1275	32	45
FLH – Public Lands Highway	\$466,057,094	\$260,965,335	24	425	4	29
FLH – Refuge Road Program	\$32,679,983	\$32,466,941	13	65	5	11
Non FLH Program	\$686,888,623	\$486,269,433	38	184	7	19

## Overview of Program & Funding

### The Recovery Act

As many Federal agencies were still in the midst of getting Recovery Act funds obligated, the FHWA was focused on getting funds expended and projects closed out. By all accounts, FHWA has been extremely successful. FLH expenditures and project closeouts have closely mirrored the overall national numbers.

Of the \$550 million authorized for FLH projects, 99.95 percent were obligated by the September 2010 deadline. Project under-runs on closed out projects resulted in an overall obligation rate of 99.65 percent at the end of FY 2011; in the same year, 87 percent of the funds were expended, or paid out to our contractors. We will achieve the 90 percent goal of expended funds set by our Executive Director for FY 12 in the first few months of the fiscal year. This high rate is a positive indicator of our meeting the requirement that priority be given to projects that can be completed within two years of enactment thus supporting the overall goal of putting people to work.

We have closed out 59 percent (64 percent FLH-delivered projects and 52 percent of IRR projects) of the 621 Recovery Act projects. The remainder will be closed out in FY 2012, or shortly thereafter.

Our successful delivery of the Recovery Act is a testament to Congress and others that we can deliver a larger program in the future. Infrastructure needs are enormous and we are facing enormous funding challenges from the economic downturn. Congress is now debating how to determine the balance between taking care of infrastructure needs and controlling the deficit and accumulating debt. One thing is certain — they know that we can deliver, if asked to do more for improving access to our Federal Lands.

FY 2012 will bring additional challenges, as we complete the Recovery Act projects and work with our partners to deliver the new program we hope to have authorized in FY 2012. FLH is up to the challenge.

### Transportation Investment Generating Economic Recovery (TIGER) Grant

As part of the Recovery Act, the U.S. Department of Transportation (USDOT) launched the TIGER Discretionary Grant Program. The TIGER Discretionary Grant Program was included in the Recovery Act to spur a national competition for innovative, multi-modal and multi-jurisdictional transportation projects that promise significant economic and environmental benefits to an entire metropolitan area, a region or the nation. Projects funded with the \$1.5 billion allocated in the Recovery Act include improvements to roads, bridges, rail, ports, transit and intermodal facilities.



*Mesa Verde National Park, Colorado*

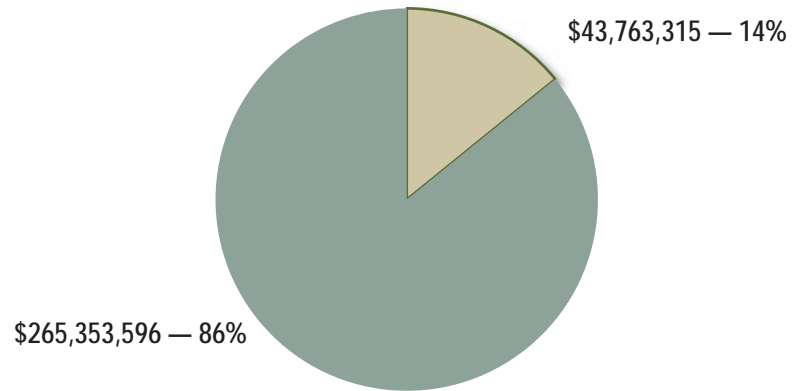


*National Gateway Project Tunnel Work, West Virginia (see TIGER Project Summary pg 32)*

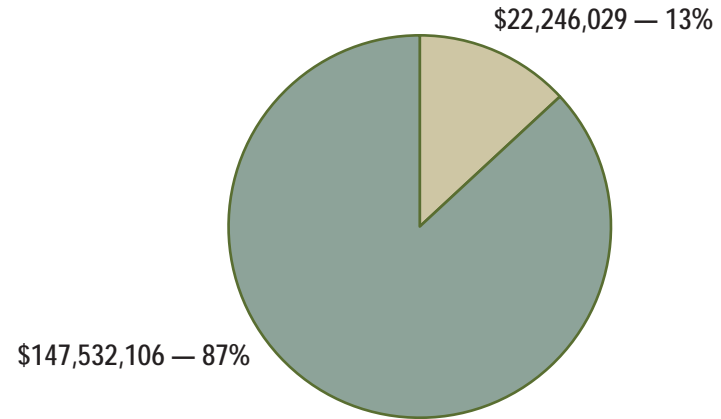
## Overview of Program & Funding

Federal Lands Recovery Act Project Status as of September 30, 2011

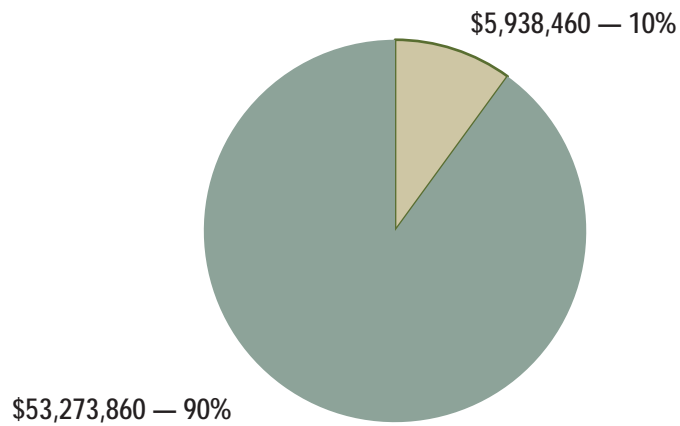
Indian Reservation Roads Program  
\$310M Authorized  
14% unpaid obligation, 86% expended



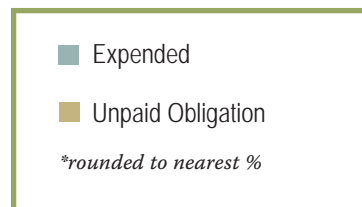
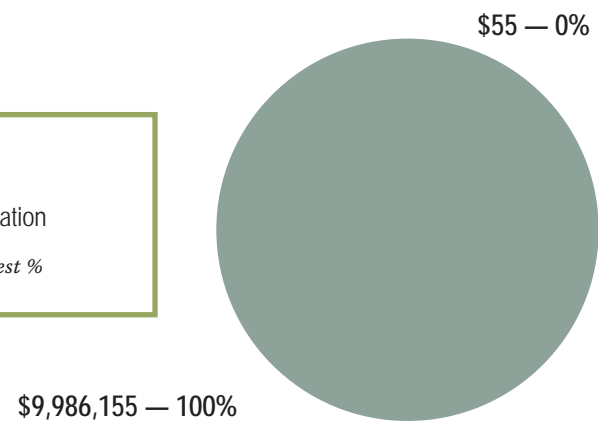
Park Roads and Parkways Program  
\$170M Authorized  
13% unpaid obligation, 87% expended



Forest Highway Program  
\$60M Authorized  
10% unpaid obligation, 90% expended



Refuge Roads Program  
\$10M Authorized  
\*0% unpaid obligation, 100% expended



## Indian Reservation Roads Program

The Indian Reservation Roads (IRR) program is the largest of the Federal Lands Highway Programs, established in 23 U.S.C. 204 to address the transportation needs of Indian Tribes throughout the United States. The purpose of the program is to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities. A prime objective of the IRR program is to contribute to the economic development, self-determination, and employment of Indians and Native Americans.



*Blackfeet Tribe paving project — Tribal personnel operating breakdown roller from the Rocky Mountain Region's equipment pool*

The IRR program was authorized at \$450 million in FY 2011. An additional \$49 million in prior year funds was also made available. The following approximate dollar values further break down the distribution of the available funding during the fiscal year:

- \$349 million to the Bureau of Indian Affairs (BIA) for tribal projects, including High Priority Projects (HPP); and for administration of the funding to 470 Tribes nationwide.
- \$107 million to 95 Tribes that have signed FHWA IRR Program funding agreements, for tribal projects including HPP.

- \$6 million to Federal Lands Highway for project designs, safety initiatives, Tribal Technical Assistance Program (TTAP) centers, Coordinated Technology Implementation Programs (CTIP), and tribal administration.
- \$37 million for takedowns and unallocated funds.

In FY 2011, a marked increase in the obligation rate was realized when 95.8 percent of the available IRR funds were obligated by the BIA, Federal Lands Highway, and tribal governments. As is normally done each fiscal year, these funds went to Tribes in 36 States throughout the country for planning, design, construction, and maintenance activities for greatly needed improvements to their eligible transportation facilities.



*Ramah Navajo Chapter Project Groundbreaking Ceremony*

As part of the IRR regulated distribution formula, \$30 million was set aside from the total authorized amount for tribal HPP projects that show evidence of safety concerns, geographical issues, or emergency relief disaster assistance needs. 39 projects were funded with HPP funding for either design or construction activities. The IRR Bridge Program was authorized at \$14 million in addition to the \$450 million annual program amount. From the Bridge Program funds, 20 projects were funded throughout the country for either structurally deficient or functionally obsolete bridges. In summary for the fiscal year, 2,106 lane miles of roadway were completed and 62 bridges were constructed or rehabilitated in Indian country, from all IRR sources of funding.

## Indian Reservation Roads Program



School bus route — Navajo Nation, Crownpoint, NM

Vehicular, bicycle, and pedestrian safety continues to be of prime concern in Indian country, and the concerted tribal safety outreach program continued during FY 2011. Six tribal safety summits were held in Alaska, Washington, North Dakota, Montana, California, and Wisconsin. Each of these summits highlighted best practices with an emphasis on modest cost investments that could yield significant safety benefits, such as performing roadside safety audits, constructing safety edges on pavements, and conducting education and outreach on pedestrian safety and seat belt usage. IRR safety activities continue to emphasize the four “E”s—Engineering, Education, Enforcement, and Emergency Response.

Under Section 1119(g)(4) of SAFETEA-LU, tribal governments may enter into program funding agreements directly with FHWA, in order to administer their portion of the IRR program. In administering the IRR program, the tribal government is required to comply with applicable provisions of 25 CFR Part 170, and the terms of the Tribe’s FHWA IRR Program Agreement. While a Tribe may elect to work directly with FHWA in the administration of the IRR program, the Tribe and FHWA continue to involve the BIA and other agencies in certain aspects of the program; including the IRR inventory updates, right-of-way acquisition, maintenance, and environmental clearances. 17 Tribes signed FHWA direct-funding agreements in FY 2011, bringing the total number of FHWA Tribes to 95. Towards the end of the

fiscal year, the BIA also developed and implemented their own version of a direct-funding agreement for many of the BIA Tribes, which will allow for the immediate transfer of the funding to the tribal governments with BIA stewardship and oversight.

Federal Lands Highway’s stewardship and oversight of the IRR program funding was enhanced in FY 2011 with the updating of the Tribal Transportation Program Delivery Guide. The document provides procedural guidance to eligible Tribes entering into Program Agreements with either FHWA or BIA, and assists the tribal governments in the administration of the IRR program in the areas of funding, transportation planning, environmental requirements, design, safety, contracting, construction oversight, and maintenance. In addition, IRR program reviews were conducted for four BIA Regional offices (Eastern Oklahoma, Rocky Mountain, Southern Plains, and Alaska) and five Tribes operating under FHWA Program Agreements (Oglala-Sioux, Fort Peck, Turtle Mountain, Kasaan, and Hydaburg). These program reviews help to enhance the IRR project delivery processes, ensure efficient and effective administration and delivery of the program, and identify best practices.



The Seneca Nation Department of Transportation succeeds in ERFO funded bridge repair and bank stabilization project at the Cattaraugus Creek Bridge in Irving, NY

## Indian Reservation Roads Program Projects

### Haxton Way Pedestrian Path — Recovery Act

Whatcom County, Bellingham, Washington

Partners: Lummi Nation Tribe, Washington State Department of Transportation, Bureau of Indian Affairs

The Haxton Way Pedestrian Path was a safety improvement project for the Lummi Nation. Haxton Way is a heavily used main route through the Lummi Nation serving both vehicular traffic travelling at speeds commonly over 50mph and pedestrian/bicycle traffic. This narrow county road had little or no shoulders, lighting, and was bordered on both sides with deep ditches. With no accommodation for both types of traffic and little to no visibility, this created a dangerous situation that had resulted in numerous fatalities.

The Lummi Nation in cooperation with Whatcom County developed this project to provide an 8 foot wide pathway with solar lighting for the safety of all traffic along Haxton Way, and did so in a very sensitive and sustainable way ensuring the safety of the community.



### Ramah Route Number 114 — Recovery Act

Ramah Navajo Reservation — Cibola County, New Mexico

Partners: Ramah Navajo Chapter, Navajo Nation, Bureau of Indian Affairs

In the Ramah Navajo Chapter Mountain View Subdivision, families had been driving on a two-track jeep trail for nearly 2-3 years. The long-term plan for the subdivision is to build 42 home sites; however, this development remained contingent on the design and construction of a sustainable road for the existing and new families within the Ramah Navajo Reservation in Cibola County, New Mexico. The subdivision currently houses Ramah Navajo Chapter Employees that includes both Medical and Law Enforcement First Response Members who had a hard time getting to work when they were on-call 24/7 during inclement weather.

The project included clearing and grubbing, tree removals, excavation, borrow, sub-grade preparation, lime treated sub-grade, grading, base course, and asphalt paving with minor structures work, Right of Way fencing, and seeding and erosion control with storm water pollution prevention control measures.

A minimum of 70% of the workforce for this project was Navajo Nation Tribal Members. This road construction project enables this community to grow to its potential.



*Collaboration*

*Safety*

*Sustainability*



## Indian Reservation Roads Program Projects

### Walden Point Road — Recovery Act

*Metlakatla Indian Community — Annette Island, Alaska*

*Partners: Bureau of Indian Affairs, Metlakatla Indian Community, Alaska Department of Transportation, Department of Defense*

Federal Land's mission on this project, in cooperation with the Metlakatla Indian Community, the Bureau of Indian Affairs and the United States Military-Joint Task Force, was to design and construct Walden Point Road on Annette Island, Alaska. This 14 mile long road will enhance the quality of life of the Indian Community by providing year round access to the city of Ketchikan via ferry, reliable multi-modal access to services, products, employment, and health care.

The mission of the U.S. Military was to conduct joint training under the Innovative Readiness Training Program that supports the Metlakatla Indian Community. The Military, with Federal Lands' assistance, trained over 11,000 troops in all aspects of military operations including road and bridge construction. Of particular note, is the training received by young engineers who participated in six-week GPS survey training assignments on site.



### Vah-Ki Road — Recovery Act

*Sacaton, Arizona*

*Partners: Gila River Community, Bureau of Indian Affairs*

Vah-Ki Road, located in the Gila River Indian Community, not only provided access to homes and churches in the area, but to agricultural areas of the Community as well. The old pavement was severely deteriorated, burdening the Gila River Indian Community Department of Transportation with its need for constant maintenance.

This project included upgrading sections from dirt/gravel to paved, grading, drainage, placement of aggregate base course, hot asphalt concrete pavement, final fog seal, the installation of culverts, guardrail, curb and gutter and pavement markings.

This project provided several benefits to the community to include: providing safe year round access for school buses; smoother, safer emergency vehicle access for medical transport, police/fire and rescue; environmental protection through the significant reduction in dust with the new pavement; better accommodation for planned residences along the road in the future; and most importantly it created and sustained employment of some non-native and native Americans.



*Livability/Mobility*

*Benefit to the Community*

*Context Sensitivity*

## Park Roads and Parkways Program Projects

### Cades Cove Loop Road

*Great Smoky Mountains National Park — Blount County, Tennessee  
Partners: National Park Service, Great Smoky Mountains National Park*

The scenic Cades Cove Loop Road is a 10 mile one-way, asphalt paved loop road in the western portion of the Great Smoky Mountains National Park. Cades Cove receives approximately 2 million visitors per year. The Loop Road is narrow and windy, and offers visitors the opportunity to observe a variety of types of wildlife as well as visit old homesteads, churches, and mills that were part of the way of life in the Cove before the Park was created. There are also numerous hiking trails that originate from the Loop Road and a campground, ranger station, picnic area and horse stables that are just outside the entrance/exit of the Loop Road. The Loop Road was last paved in the late 1970's.

The rehabilitation project of the Cades Cove Loop Road involved Full Depth Reclamation (FDR) with cement of the Loop Road and parking areas, and included ditch reconditioning, drainage improvements, signing and striping and paving of some gravel turnouts. The project also included construction of concrete low water crossing fords. Several existing paved pullouts were widened to accommodate the full width of a vehicle, gravel pullouts were constructed, and some paved, at destination sights as well as at areas where traffic could be eased. The parking area and entrance road at the Cable Mill Visitor's center were also rehabilitated within the existing limits. The bridge over Abrams Creek was replaced with a wooden bridge deck.



### Foothills Parkway — Multi Funded/Leveraged; Recovery Act

*Great Smoky Mountains National Park — Blount County, Tennessee  
Partners: National Park Service, Great Smoky Mountains National Park*

The National Park Service (NPS) was authorized, through legislation passed in 1944, to build 72 miles of the Foothills Parkway. However, a 1.65 mile segment of the Foothills Parkway, referred to as the “missing link,” remained unconstructed because of cost, complexity, and environmental sensitivity for more than 25 years. Located in a scenic, environmentally sensitive area with limited access within the Great Smoky Mountains National Park, two design-build projects for the construction of six bridges, roadway, drainage and retaining walls are under construction to complete the “missing link” of the Foothills Parkway.

This “Missing Link” presents multiple engineering challenges working on pristine steep mountain slopes often with sulfidic rock (pyrites) present. The projects include the most difficult and signature structure on the Parkway, Bridge 2, an 825-foot, precast segmental structure on an S-curve. To preserve the environmentally sensitive mountainous terrain, all the bridges are constructed “top-down” with precast concrete segments. This bridge will open a 16 mile segment between Walland and Wears Valley, Tennessee, that has never been opened to traffic since its original construction in the 1980s, all in time for the 2016 NPS Centennial celebration!



*Livability/Mobility*

*Climate Change*

*Historic Significance*

*Environmental Impact*

*Accessibility*

## Park Roads and Parkways Program Projects

### Grand Loop Road

*Yellowstone National Park — Segment B between Madison and Norris Junctions, Wyoming  
Partners: National Park Service*

This project improved a 10 mile long segment of the Grand Loop Road between Madison and Norris Junctions. Specifically, the work included repairs to the historic stone masonry retaining walls near Gibbon Falls and improvements to the Gibbon Falls overlook and parking area making it safer for visitors while providing handicap access. The road above the historic stone walls was also reconstructed, partly to reduce the danger of falling rock. A variety of new retaining walls were constructed to minimize construction impacts and to stabilize slopes. A new 3-span bridge was constructed crossing the Gibbon River, designed architecturally similar to the historic bridges in the area. The Beryl Spring Bridge, found to be structurally deficient was rehabilitated. The Gibbon River Picnic Area was restored; and the project succeeded in reclaiming two old gravel pits located within the park. Restoration of the river banks of over two acres of wetlands was made possible with the relocation of two miles of the alignment out of the confines of the Gibbon River Canyon. Native rock from the excavation was conserved for all of the stone masonry work on the project.



### Going to the Sun Road — Recovery Act

*Glacier National Park — West Glacier, Montana  
Partners: National Park Service, Montana Department of Transportation*

Within Glacier National Park in Montana, the 50 mile Going-to-the-Sun Road is the only access through the park, connecting the park's west and east sides while crossing the Continental Divide. It also provides the only access to the primary destination point within the park, Logan Pass area (continental divide). The heart of the project is located in the the Alpine Section the most significant and most difficult portion of the 50 mile long project.

The road is listed on the National Register; designated a National Civil Engineering Landmark; twice documented by the Historic American Engineering Record and most significantly became a National Historic Landmark in 1997. Given the Historic designation, context sensitive solutions were employed to develop repairs to preserve the historic contributing elements of the road (stone masonry guard walls, bridges, rock cuts, viewing vistas and roadway width) while also guarding the fragility of the environment.

The project included construction of a Transit Center, purchase of 18 new buses, construction of 16 transit stops, installation of an Intelligent Transportation System (ITS) infrastructure, and the development of a public communication system. In addition, the project includes development of a traffic control system (limiting the public to a just 30 minute collective delay over the entire 50 mile long project), Indefinite Delivery/Indefinite Quantity (IDIQ) construction contracting process, and incorporation of EDC techniques like "warm mix asphalt". The addition of Recovery Act funding accelerated construction and significantly contributed to the local economy providing employment opportunities for locals and residents of the Blackfeet Reservation.



*Multi-Modal*

*Unique Conditions  
Sustainability*

*Context Sensitivity*

*National Importance*

## Park Roads and Parkways Program Projects

### Humpback Bridge

*George Washington Memorial Parkway — Arlington County, Virginia & Washington, DC  
Partner: National Park Service*

The Humpback Bridge is located on the George Washington Memorial Parkway (GWMP) just north of Interstate 395. More than 75,000 vehicles cross it every day, far more than it was designed to carry when it was built in 1932. The bridge was in need of replacement to meet current traffic demands and also to correct several safety issues while relieving congestion on the Parkway to Reagan National Airport, I-395 in Northern Virginia and on the 14th Street Bridge into the District of Columbia.

Traffic routinely backed up on the 14th Street Bridge, impacting into the city of Washington, DC. This section of the Parkway had the highest accident rate. Insufficient sight distances over the bridge contributed to frequent accidents caused by sudden braking. Mount Vernon Trail users wishing to cross the bridge were confined to a narrow sidewalk with speeding traffic on one side and the bridge wall on the other. Pedestrians and bicyclists crossing the Parkway were doing so in the face of oncoming vehicle traffic traveling at a high rate of speed in both directions.

The replacement of the historic Humpback Bridge was designed to incorporate all existing architectural features (including reuse of all existing stone) into the replacement structure. The grade of the road was adjusted to improve sight distance over the bridge. A pedestrian crosswalk was replaced with a tunnel under the Parkway for safe access between the Columbia Island Marina, the Mount Vernon Trail and the Potomac shoreline. A barrier was incorporated along the Humpback Bridge to separate users of the Mount Vernon Trail from Parkway traffic. All of this eliminating many sources of conflict and thus substantially improving safety and traffic flow, while maintaining the aesthetic character of the bridge.



### Mather Point

*Grand Canyon National Park — Grand Canyon, Arizona  
Partners: National Park Service, Grand Canyon Association*

Mather Point is a popular viewing area for park visitors. This project included construction of 250 parking spaces, picnic areas at Mather Point, restroom facilities on the north end of the new commercial vehicle parking lot and removal of the remaining roadway and parking lot at Mather Point. A landmark feature honoring Native American tribes and a new Grand Canyon plaza area were also constructed. This project rehabilitated the Mather Point overlook including ADA compliance and construction of an amphitheater on the canyon rim. Mather Point was fully leveraged using NPS Fee Demo funds. The project greatly improved safety, while enhancing the park visitor experience.



*Safety*

*Historic Significance*

*Context Sensitivity*

*Sustainability*

## Park Roads and Parkways Program Projects

### Point Bonita Lighthouse

Golden Gate National Recreation Area – San Francisco, California  
Partners: U.S. Coast Guard, National Park Service

One facet of the EDC initiative is the use of innovative contracting techniques to accelerate project delivery times. Federal Lands is currently using one such technique, Construction Manager/General Contractor (CMGC) services, to deliver the Point Bonita Lighthouse Bridge Project. CMGC is a hybrid between traditional Design-Bid Build and Design-Build, where a firm is brought on board during project design as a Construction Manager. During design, the contractor's construction experience will help the project development team estimate quantities, develop a work breakdown structure, procure materials with long lead times, identify risks and increase constructability of the design. All of these activities promote collaboration and require the contractor to share risk which gives the contractor a vested interest in risk mitigation.

The design phase of the CMGC contract was awarded based on a best-value evaluation of proposals. During the design phase, the contractor attended the on-site 70% and 95% design reviews, provided a constructability report, began pricing materials and items of work, and created a construction schedule. Central Federal Lands and the contractor negotiated a final price for the construction phase in September 2011, and on site construction began in October 2011. The completion date is scheduled for April 1, 2012.

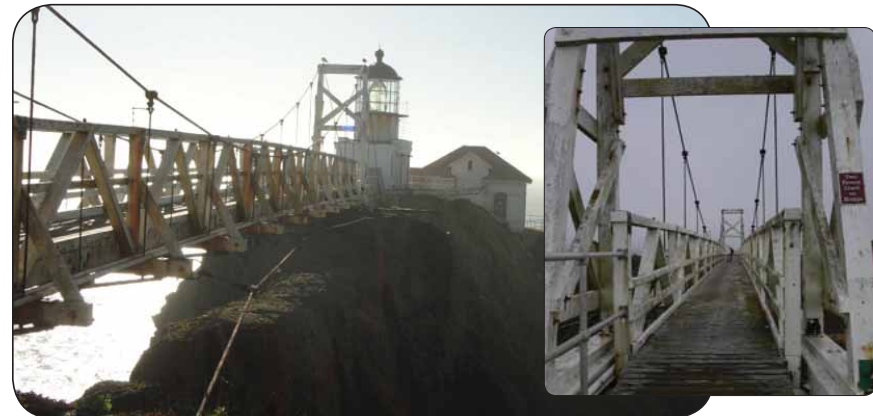
The advantages of CMGC fit nicely with the unique needs of the Point Bonita Lighthouse Project. Point Bonita is located within the Golden Gate National Recreation Area. The lighthouse and bridge are owned by the U.S. Coast Guard, but the bridge is maintained by the National Park Service. Bringing a contractor on board during project design has improved communication and collaboration among all project stakeholders and provided the contractor with knowledge about construction within a park setting. This project is also budget constrained with non-program funds, and the CMGC method was useful in helping to contain scope within the available funding. Additional benefits of the CMGC process are that it allowed for a more comprehensive and integrated discussion of project scope and it was helpful in achieving timely environmental compliance.

The U.S. Coast Guard built the existing suspension bridge in 1954 using treated Redwood timbers to construct the towers. In 2005 it was determined that the bridge was a contributing structure to the Point Bonita Light Station which had been entered into the National Record of Historic Places in 1991.

Recent field inspections have determined that the bridge must be replaced. Due to the historic nature of the bridge, the replacement must maintain the bridge's character including structure type and materials. Redwood is no longer a viable option for the required size and strength of the tower members. During preliminary design it was determined that tropical hardwoods were the only acceptable replacement material type. Since tropical hardwoods require long lead times to procure, the contractor was issued a contract modification to order the tropical hardwood early. Suspension cables and structural steel were also procured in advance, prior to arriving at a final negotiated construction price. The ability to procure materials in advance minimizes delays during construction and shortens the construction schedule.

Site access to the bridge and the construction staging area is limited. Some equipment and materials may not fit through the tunnel, so the use of a helicopter may be required. Environmental concerns further complicate logistics by restricting the available flight paths to and from the project. Involving the contractor early on during project development has helped to minimize the use and maximize the efficiency of expensive helicopter delivery services and improve planning of construction staging areas.

While we anticipate challenges using this new contracting technique, we feel that it has given us the best chance of success on this project while also providing valuable knowledge and skills to help us employ CMGC effectively in the future.



*Livability/Mobility*

*Innovative Contracting*

*Partnership*

## Park Roads and Parkways Program Projects

### Strawberry Creek Bridge

*Great Basin National Park — Strawberry Creek Road, Baker, Nevada  
Partners: National Park Service, Great Basin National Park*

Great Basin National Park in Nevada is in the process of developing recreational infrastructure in the Strawberry Creek Watershed and restoring existing natural resources impacted from years of unregulated recreation and prior road construction activities. This project involved removing the existing fish passage barrier and then carefully restoring it to this stretch of creek containing four species of NPS Management Concern, including the Bonneville Cutthroat Trout, currently petitioned for listing on the Endangered Species List. The four species have genetics unique to the area and have been isolated for over 10,000 years in this valley. FHWA was asked by Great Basin National Park to look at alternatives for this site to restore fish passage while providing an aesthetic structure for the area.

The Strawberry Creek Bridge was designed as a 28-foot long, 16-foot wide timber bridge structure supported on concrete vertical abutment walls with spread footings placed 12 feet below the ground elevation. Due to the remote location of this bridge, the contractor's initial bid for cast-in-place concrete to construct the abutments caused the total construction cost to be significantly higher than the engineer's estimate. Since the road needed to be closed during construction their initial proposal also called for approximately a three week closure. In order to reduce costs and closure time, the bridge was redesigned as a Geosynthetic Reinforced Soil (GRS) Integrated Bridge System (IBS). GRS-IBS is an EDC initiative under Accelerated Technology. This technology uses alternating layers of compacted granular fill material and fabric sheets of geotextile reinforcement to provide support for the bridge. The GRS-IBS structure included prefabricated timber deck, steel girder bridge on precast concrete footings. The GRS-IBS design reduced the overall cost of the bridge by about 30% and the closure time by 50%. The GRS-IBS guidelines and construction videos provided by the FHWA Office of Infrastructure Research and Development were given to the contractor to refer to during construction.

The contractor mobilized to the site, closed the roadway to public traffic, diverted the channel, constructed both abutments and the bridge, built both approaches, placed riprap in the channel, cleaned up the site, and demobilized in 10 days. Even though this contractor was not experienced in the construction of GRS-IBS bridges, the plans were easy to follow and construction went very smoothly.

### Wawona Road — Recovery Act

*Yosemite National Park — Mariposa County, California  
Partners: Yosemite National Park, Denver Service Center*

This project reconstructed 27 miles of Wawona Road, to include upgrades to the existing road, and parking areas, pullouts were recycled and overlaid. The project schedule was accelerated to address marginal pavement conditions and safety issues. To accelerate the project, the project team combined four originally programmed projects into one project and committed to a tight nine-month design timeframe. Environmental compliance was completed concurrently with the design creating a more efficient and balanced project, with minimal impacts to the overall schedule. Safety improvements including a consistent paved width, signing, striping and a centerline rumble strip will reduce accidents along this route. The Park allowed flexible traffic closure hours and night work in order to complete construction in one season. The accelerated construction schedule reduced what would have been four years of construction impacts to millions of Park visitors to one construction season. This project provided a local economic boost and the continued employment of many construction and material supply employees.



*Applied Technology*

*Environmental Impact*

*Context Sensitivity*

*Sustainability*

## Forest Highway Program Projects

### Cass-Oark Road — Recovery Act

Johnson County, Arkansas

Partners: USDA Forest Service, Arkansas State Highway and Transportation Department

The Cass-Oark Road, State Route 215, is now considered one of Arkansas' premier recreational motorcycle routes, following the Mulberry River in north-central Arkansas. This reconstruction project improved and widened the existing gravel road to accommodate two-lane traffic, constructed two bridges and provided for aesthetic guardrails and retaining walls.

The Arkansas State Highway and Transportation Department and the Forest Service faced significant challenges to improve the quality of the road and bridges in difficult terrain without disturbing the beautiful river vistas. This area can now accommodate the safe access of recreational vehicles used by motorcyclists, hikers, campers, and hunters; and is better able to meet the increased demand for accessibility to this scenic area.

The upgrades provide tremendous economic benefit to the area as this public road connects the Ozark National Forest to nearby roads, and serves local recreational, residential and commercial needs as well as those of visitors to the forest.



### Camp Grisdale Road — Recovery Act

Olympic National Forest, Western Washington

Partners: Grays Harbor County, Olympic National Forest

The Wynoochee (Camp Grisdale) Road was first constructed in the 1940's to haul out timber, supplementing an existing railroad that was built much earlier for the same purpose. Due to limitations on logging, the economy in the Grays Harbor County area near the project, had struggled and access to local recreation facilities was challenging.

Camp Grisdale Road is the primary access to the Wynoochee Lake recreation area, campgrounds, trailheads, and over 100,000 acres of forest in the Olympic National Forest. The road was unpaved and became extremely dusty in the summer and impassible without continuous maintenance in the winter. The project included reconstructing the roadway alignment to current design standards with a paved surface, construction of a bridge and other drainage improvements that improved aquatic organism passage, and also facilitated the restoration of wetlands. The newly upgraded road has already changed traffic at the Lake and area campgrounds. Low-clearance performance cars that never would have made it up the old road are becoming more common according to the local Forest Service Campground management. Recovery Act funding enabled Federal Lands to complete this project 2 years ahead of schedule opening the recreational area of Olympic National Forest to a whole host of new visitors.



*Economic Benefit*

*Livability/Mobility*

*Safety*

## Forest Highway Program Projects

### Coffman Cove — Multi-Funded/Leveraged

*Tongass National Forest — Prince of Wales Island, Alaska*  
*Partners: USDA Forest Service, Alaska Department of Transportation*

Working in cooperation with the Forest Service and the Alaska Department of Transportation and Public Facilities, an 85 mile modern road system was constructed for Prince of Wales Island, the fourth largest island in the United States. The rainforest environment required deep excavations of unsuitable material and surcharging of the roads to obtain stability. The road system serves the residents of the island and tourists in providing efficient transportation between the communities, the two ferry terminals, the airport, and the seaplane bases.



### Fernan Lake Road

*Idaho Panhandle National Forest — Coeur d'Alene, Idaho*  
*Partners: Eastside Highway District, Idaho-Panhandle National Forest, Idaho Department of Transportation*

In beautiful northern Idaho, the Fernan Lake Road provides access to the Idaho Panhandle National Forest. The project was a cooperative effort between FLH, the Idaho Panhandle National Forest, and the Eastside Highway District that operates and maintains the road. Situated along the shores of a lake, the winding road was narrow, potholed, and had seen numerous accidents. The road also contributed sediment into the lake and various accesses needed improvements. To address these problems the road was reconstructed with new curves along the lake, flattening many of them to current standards. Access points along the route were improved, and drainage was captured for treatment before entering the lake. The new surface will provide years of maintenance free service. A curvilinear bridge replaced a causeway across one of the lake's bays, improving connectivity of the lake for aquatic species. FLH completed an Environmental Impact Statement (EIS) to guide the development of the roadway plans.



*Context Sensitivity*

*Safety*

*Environmental Impact*



## Forest Highway Program Projects

### Guanella Pass Road — Recovery Act

*Guanella Pass Scenic Byway — Arapaho/Roosevelt National Forest, Colorado*  
*Partners: USDA Forest Service, Clear Creek County, Town of Georgetown, Georgetown Historical Society*

Guanella Pass Road is one of the premier high mountain roadways close to Denver. The project consisted of major grading, retaining walls, drainage improvements, and placement of aggregate base and hot asphalt concrete paving of 6.4 miles of Guanella Pass Road. The project started in Georgetown, Colorado and proceeded in a southerly direction towards the top of Guanella Pass. The rehabilitation of this road focused on improving the condition of the roadway while minimizing overall environmental impacts associated with poor drainage, raveled aggregate surfacing and wash boarding.

Upon completion, everyone was thankful to see the roadway completed. The local residents were happy with drainage improvements that will alleviate the local concerns with flooding in the Town of Georgetown and erosion of the mountainside. The local agencies were pleased that the new roadway would reduce their maintenance requirements. Anyone who visits Guanella Pass will not only be able to enjoy the new roadway but also the improved parking areas and trail access. The roadway to Guanella Pass finally matches it's pristine surroundings and will be there for the public to enjoy for many years.



### Jody Mullins Bridge — ERFO

*Gifford Pinchot National Forest — Packwood, Washington*  
*Partner: USDA Forest Service*

A major flood in December 2006 undermined the center pier on the Jody Mullins Bridge, causing the pier to settle 4 feet. Using ERFO funding, Western Federal Lands removed the bridge to prevent it from collapsing into the river. The contractor spanned the river with steel platforms to protect the river from debris during demolition. Then, using concrete crushers the contractor removed the bridge restoring the environment. Forest Road 1270, the road on which the bridge existed extends about another 2 miles into the Gifford Pinchot National Forest, south of the Mount Rainier National Park boundary. It accessed a small rock quarry site used in the construction and maintenance of local forest and NPS Roads and a tribal cedar bark harvesting area. There are no current plans to re-establish this access. Arrangements have been made with the local tribes to provide alternative harvest areas in the vicinity. Future rock quarry materials necessary for local projects will be obtained from alternate locations in the area.



*Livability/Mobility*

*Partnership*

*Sustainability*

## Forest Highway Program Projects

### Little Salmon River Bridge — ERFO

Nez Perce National Forest — Riggins, Idaho

Partners: Idaho Transportation Department, Idaho County, Nez Perce National Forest

The Little Salmon River Bridge connects State Highway 95 to the Salmon River Road. Located just south of Riggins, Idaho, and the Little Salmon — Salmon River confluence, the bridge provides a gateway to one of the premier recreational rivers in the country and the new Whitewater Park being developed by the City of Riggins. The bridge replaces a narrow one-lane, structurally deficient span with a span of 180 feet made from high-strength American steel. Currently 15 miles of the Salmon River Road are undergoing reconstruction to provide better access for the wide variety of recreationalists that use the river.



### Manning Crevice Bridge

Nez Perce National Forest — Salmon River, Riggins, Idaho

Partners: Bureau of Land Management, Nez Perce National Forest, Payette National Forest, Idaho County

The Manning Crevice Bridge, a suspension bridge built in the 1930's, has reached 70 years of service and is in need of upgrade to ensure extended service life. The bridge crosses the Salmon River in the spectacular Manning Crevice canyon. This project will increase the deck width and load capacity, improve vertical clearances, and will improve the approach allowing larger vehicles to cross the bridge. The river has a very high level of recreational use and is eligible for "Wild and Scenic River" status.

FLH is using a Construction Management/General Contractor (CMGC) procurement method for this unique project. A design consultant was selected based on their ability to provide design for a suspension bridge. A construction contractor will be selected using their qualifications to construct this unique bridge, as well as their price to construct the bridge. The contractor will become part of the design team at about the 30% design stage. The design team will then be able to use the contractor's expertise to eliminate risks, lower costs, and provide a tailored design for construction.



*Partnership*

*Innovative Contracting*

*Context Sensitivity*

*Unique Conditions*

## Forest Highway Program Projects

### Skyliners Road

*Deschutes National Forest — Bend, Oregon*

*Partners: City of Bend Oregon, Deschutes County Oregon, Deschutes National Forest*

Skyliners Road provides access from the City of Bend Oregon to recreation areas on the Deschutes National Forest, to local residents, and to the City of Bend municipal watershed. Skyliners road is a major bicycle route that is used for nationally recognized bicycle events. Average seasonal cyclist use is over 100 daily.

The project would reconstruct 8 miles of Deschutes County maintained road to address deteriorating pavement conditions and provide bike lanes for the existing mix of bicycle and vehicle use. The road improvement project is being coordinated with the City of Bend's Surface Water Improvement Project and with improvements by the Deschutes National Forest to Phil's Trailhead.

The City of Bend owns and operates a surface water supply system that includes a pipeline that runs parallel to Skyliners Road. The City plans to replace the existing pipeline with a new pipeline that would be located within the Skyliners Road prism. Work on the pipeline is being closely coordinated with the road project to share development costs; identify construction cost reduction opportunities; and minimize construction impacts to road users.



*Existing condition*

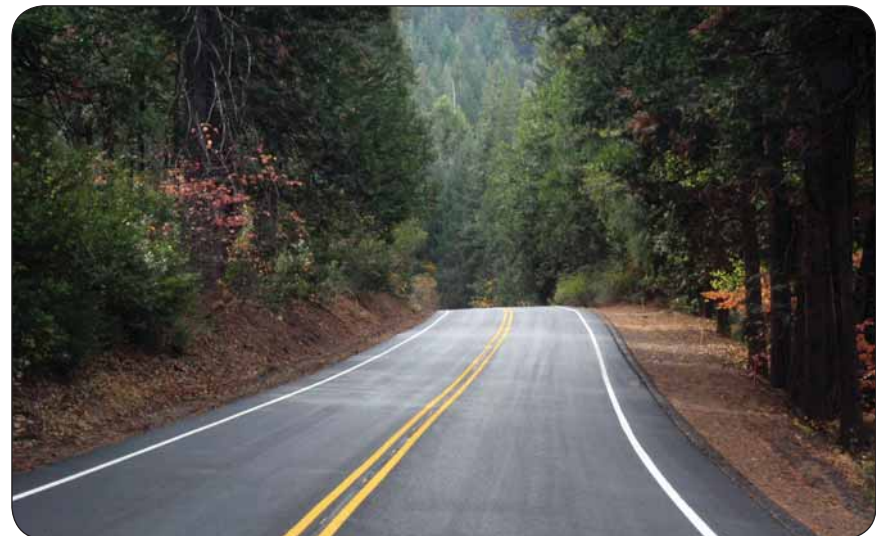
### Washington Road — Recovery Act

*Washington, California*

*Partners: Tahoe National Forest, Nevada County California*

The Washington Road project involved the rehabilitation of a 5.29 mile long section of California Forest Highway 123, improving pavement conditions and safety while reducing the annual maintenance performed by the local county agency. The existing roadway was pulverized in place and recycled to use as the new roadbase. Drainage improvements were also made to protect the roadway. Safety improvements included the removal of roadside hazards within the clear zone, realignment of substandard curves, and minor widening to account for the many logging trucks and other heavy vehicles that frequent this road.

This project improved the only paved road into the community of Washington, California. Several residents of Washington were directly employed by the contractor for this project. This project also provided economic stimulus for the community of Washington as some workers camped in the local campgrounds and patronized local merchants.



*Public Involvement*

*Economic Benefit*

*Collaboration*

## Refuge Roads Program Projects

J. Clark Salyer National Wildlife Refuge — Recovery Act  
*Bottineau and McHenry Counties, North Dakota*  
Partners: US Fish and Wildlife Service, North Dakota State Historical Preservation Office

This project relocated the Souris River Bridge (commonly referred to as the Johnson Bridge) and created an interpretive site. This site included a small parking area, concrete trail, interpretive panels, and railing/stairs that allowed pedestrians on the bridge. The Johnson Bridge was constructed in 1908 and is one of three steel Pratt truss bridges of its kind in North Dakota. This bridge was a one lane bridge with substandard substructure and railing components. Due to its historical significance, the North Dakota State Historical Preservation Office, U.S. Fish and Wildlife Service, and Federal Lands agreed to relocate the bridge and construct an interpretive site. A new Souris River Bridge was constructed on the roadway alignment. The new bridge is a concrete bulb tee girder bridge and accommodates two-way traffic. Seven low water crossings were also constructed in specific areas to provide access on the route during the high flow periods of spring and early summer.

This project was a hallmark Recovery Act project for the Refuge Road program. It opened important public access to an appreciative refuge and public, corrected a significant safety problem by replacing and preserving an old bridge, and created jobs in a significant time of need.



Mattamuskeet National Wildlife Refuge  
*Route 10, Lake Landing Road, North Carolina*  
Partner: US Fish and Wildlife Service

This project involved replacement of the Central Canal and East Canal Bridges and rehabilitation of Lake Landing Road and Parking area at the Mattamuskeet National Wildlife Refuge. Economical and accelerated bridge technology was employed by using precast deck slab elements and GRS foundation for the two bridges instead of traditional pile foundations and cast-in-place abutments and decks. Bridge abutments constructed on GRS foundations have demonstrated excellent characteristics and a very high load carrying capacity. A Cellular Confinement System (CCS) with geosynthetic gravel-filled cells has been used as a facing to provide erosion protection to the GRS abutments. Despite construction delays on the project due to preloading and differential settlement, traditional construction would still have been more expansive and time consuming. Technology applied on this project supported the FHWA EDC initiative.



*Benefit to the Community*

*Habitat Restoration*

*Livability/Mobility*

## Refuge Roads Program Projects

### North Bank Lane Road

*Bandon Marsh National Wildlife Refuge — Southern Coast of Oregon  
Partners: US Fish and Wildlife Service, Coos County, the Coquille Indian Tribe, the Confederated Tribe of the Siletz Indians, Ducks Unlimited, National Marine Fisheries Service, USACE, Oregon State Historic Preservation Office, and local residents*

The North Bank Lane Road Improvement Project serves as an excellent example of the benefits that can be gained by innovative project development, streamlining and partnership coordination.

North Bank Lane is a two-lane road that provides access to local residences, businesses, Refuge headquarters, recreational facilities and other local roads. Roadway improvements were needed primarily to reduce road flooding and permit the Refuge to fully implement a project to restore over 400 acres of tidal wetlands, the largest tidal wetland restoration project in Oregon history! The roadway project involved installing larger culverts to improve aquatic organism passage and fish habitat upstream of the tidal wetlands.

Though a relatively small project, it was complex for many reasons. The Refuge's wetland restoration project occurred concurrently within the same geographic area as the roadway project. The project was situated in an area with numerous sensitive environmental resources including Federally-listed fish species and historic properties listed on the National Register. And there were a number of stakeholders involved in both the road and wetland restoration project.

Delivering the project on time and within budget would not have been feasible if typical design and clearance processes were employed. Because the road project was an integral part of the wetland restoration project, USFWS and FHWA agreed to partner in the production of one Environmental document, addressing both projects. By partnering on the EA, other environmental clearances were streamlined and permitting requirements were greatly reduced. The regulatory agencies involved with these clearances expressed appreciation for this approach because it saved them time and money. Also, partnering on the NEPA had the beneficial effect of directing close coordination between Federal Lands and the FWS on the design of the projects. This resulted in improved planning and implementation of construction activities for both projects, which were to occur concurrently and in the same location resulting in a more efficient and cost-effective delivery of the overall project. Multiple agencies worked together efficiently and effectively, making use of their specific skill sets, to provide high quality and valued products. Through this project significant tidal wetlands were restored, species were protected and safe access was provided to the public.

### Tualatin River National Wildlife Refuge — Recovery Act

*Refuge Entrance Road and Parking Areas — Tualatin, Oregon  
Partners: US Fish and Wildlife Service*

This project included improvements to the entrance road and parking areas at the Tualatin River National Wildlife Refuge, one of only a handful of urban national wildlife refuges in the country, located within the greater Portland metropolitan community. The Refuge is home to nearly 200 species of birds, over 50 species of mammals, 25 species of reptiles and amphibians, and a wide variety of insects, fish and plants. The Refuge provides five of the six priority public uses cited in the National Wildlife Improvement act of 1997 and already enjoyed a high volume of visitors.

The project improved the gravel parking lots at the visitor center and a wayside, by adding sustainable features such as bio-swale, wetland plantings, pervious pavers under the parking areas and paving the remaining area as dust abatement. The bioswale, constructed with amended soils and native plants, will collect and cleanse storm water, protecting habitat from polluted runoff, erosive flows and flooding. The Refuge will also use the bioswale to promote innovative green technology in traditional construction. Year round safe access was provided meeting the priority of providing environmental educational opportunities to the public, while furthering economic development within the local community.



*Context Sensitivity*

*Handicap Accessibility*

*Environmental Impact*

*Unique Conditions*

*Other Title 23 Program Projects*

9th Street Bridge — State

*9th Street over New York Avenue, NE, Washington D.C.*

*Partners: District of Columbia Government, District Department of Transportation*

This Design-Build project involved the design and reconstruction of the 9th Street Bridge over New York Avenue, NE, and connecting roadways. The new bridge replaces a 70 year old bridge over railroad tracks for the CSX and Metro. It features wider lanes and sidewalks to provide space to bicyclists, as the city is experiencing a welcome boom in bike traffic.

The new bridge improved traffic congestion and safety to a vital corridor to Washington, DC. The City’s mayor described the roadway as vital to economic development downtown. The project also incorporated numerous aesthetic features designed to allow the new bridge to blend seamlessly with the existing community and as an aesthetic and attractive gateway into the city.



St. John Roundabout — Territorial Highway Program

*Cruz Bay, St. John, U.S. Virgin Islands*

*Partners: Virgin Islands Department of Public Works*

This project involved construction of a five-leg mini-roundabout in the heart of Cruz Bay, on St. John in the U.S. Virgin Islands. The project was politically sensitive and it involved multiple challenges, including removal of a gas station, underpinning of existing building structures, utility relocations, and significantly lowering the roadway to provide a safer intersection. The roundabout was the only realistic alternative considered to allow for the safe movement of tractor trailers leaving the St. John Container Port onto the island. The successful completion of this project not only helped the local economy and tourism, but it also helped local school, fire/rescue and businesses by removing traffic congestion. Streamlined traffic adjacent to the main ferry docking area is a welcome change for the Island and is a testament to successful partnering between FLH, the Virgin Islands Department of Public Works, and the local community.



*Benefit to the Community*

*Safety*

*Innovative Contracting*

*Freight/Mobility*

## Other Title 23 Program Projects

### Bizz Johnson Trail Bridge — Recovery Act

*Bizz Johnson National Recreation Trail, Lassen National Forest — Lassen County, California*  
Partners: Bureau of Land Management, USDA Forest Service

This Trail Bridge project restored dedicated bicycle and pedestrian access across the Susan River on the original railroad alignment. In July 2000, wildfires destroyed a 90-foot timber section of the 270-foot bridge leaving this historic bridge inoperable. Work on the project included demolition of existing bridge deck, installation of replacement girders, removal of lead based paint, and repainting of existing steel trestle structure. The replacement steel girders were designed and painted to match the original girders installed in 1913. The BLM considers the bridge to be eligible for listing under the National Register of Historical Places. To accommodate trail users with disabilities, the bridge decking was designed for wheelchairs and horse drawn carriages. The bridge was reopened to the public in October 2010, in time for the annual Bizz Johnson Marathon. The race is a large tourism boost for the local economy, filling hotels and restaurants in nearby Susanville. Both the design and construction of the project was completed in 10 months, which is substantially less than the typical duration for a project of this complexity. Through fast tracked delivery of design and construction, this project has restored the historical character and functionality of the most impressive bridge on the 30-mile Bizz Johnson National Recreation Trail. This project also received a 2011 FHWA National Environmental Excellence Award in the Non-Motorized Transportation Category. Along with others from 2010, this project represents the beginning of a partnership between Central Federal Lands and the BLM that will result in enhanced transportation facilities on BLM lands throughout the west.



### Buck, Esmond & Hawley Creek Culverts — Recovery Act

*Lane and Douglas County, nearest city, Eugene, Oregon*  
Partner: Bureau of Land Management

This project is located in two counties- economically depressed due to sharp reductions in the logging industry. The project includes replacement of eleven structurally failing culverts, all 40 years or older. The deteriorated condition of these culverts was inhibiting road access to BLM lands for the local and visiting public, recreationists, contractors, fire management operations, and BLM staff. Nine of the eleven culverts also blocked passage by federally listed Coho salmon in the Siuslaw River watershed, as well as resident fish.

The eleven new culverts, ranging in diameter from 5 to 12 feet, are designed to provide adequate flow for a 100 year magnitude flood event. The nine culverts on fish passage creeks are also designed and built to simulate a natural streambed along the inside of the culvert.

This project ensures access for multiple users of these BLM roads, greatly improves fish passage for federally listed endangered species, and reduces potential sedimentation and erosion that would impact water quality.



*Partnership*

*Economic Benefit*

*Handicap Accessibility*

*Historic Significance*

## Other Title 23 Program Projects

### Cibola Bridge

*Cibola National Wildlife Refuge — Arizona/California Border  
Partner: Bureau of Reclamation & US Fish & Wildlife Service*

The Cibola Bridge Project consisted of replacing a deteriorated bridge deck on this structure that spans the Colorado River in Arizona, near the Arizona/California border. The bridge is about 20 miles south of Blythe, California. The project also upgraded bridge railing, added new navigational lighting under the bridge for vessels traveling on the Colorado River and added new pile wrapping protection for the piers in the water.

This project is one of only a handful of structures that crosses the Colorado River in this area. It is relied upon for agricultural purposes, and fire protection. Also, the Cibola National Wildlife Refuge covers the entire area providing recreation and emergency access. All other structures in the area are substandard and pose some risk for use, especially by larger vehicles. The improvements made to Cibola Bridge provide safer access, and enhance the visitors experience within the Refuge environment by affording access to both banks of the Colorado River.



### Mineral Canyon Road — ERFO

*Moab, Grand County, UT  
Partners: Bureau of Land Management, Canyonlands National Park, Grand County*

The Mineral Canyon Road is one of the primary routes through the heavily used recreation trail system in Grand County, Utah. The road is the only accessible and feasible route to integrate use of BLM lands and the Canyonlands National Park. Additionally, the route is one of the only loading points to the Green River for both commercial and recreational rafting and boating. On August 19, 2010, the Mineral Bottom area was hit by a very intense storm resulting in complete destruction of approximately 1,000 linear feet of roadway, closing the roadway to the public indefinitely.

Recreation and tourism generate the largest portion of the Grand County economy. Our partners expressed concern for impacts on the spring season, the heaviest recreation use period. The project consisted of repairing and reconstructing the washout areas with mechanically placed rock embankment generated on site by drilling and blasting.

Original project estimates were nearly \$2.0M with an expected delivery schedule of over 9 months. A letter contract was utilized to expedite the procurement process, the project was completed in just over 5 months for under \$1.1M. A strong partnership was formed between FLH, the BLM, Grand County, and Canyonlands National Park.



*Unique Conditions*

*Innovative Contracting*

*Environmental Impact*



## Non Title 23 Program Projects

### Fairfax County Parkway — Recovery Act

Springfield, Virginia — near Fort Belvoir

Partners: Virginia Department of Transportation, U.S. Army, and Fairfax County

This project represents the final key sections of a parkway that passes through one of the National Capital areas' most congested traffic corridors. It will minimize the impacts associated with the Army's initiative to relocate 8,500 military staff to Fort Belvoir under the Base Realignment and Closure Act (BRAC). Fort Belvoir will have the fifth-largest military population of any installation in the country, consolidating employees from six locations. The engineer proving ground, next to the main Army post, is becoming home to the 2.4 million-square-foot headquarters of the National Geospatial-Intelligence Agency. In addition to providing another entry to the Fort Belvoir North Area, it will construct a four-lane divided limited access highway to complete the missing link of the Fairfax County Parkway between Rolling Road and I-95. This project is the result of unprecedented cooperation among the Department of the Army, Virginia Department Of Transportation, and FHWA/Federal Lands.

The project corridor begins at Rolling Road/Franconia-Springfield Parkway and proceeds southeastward on a new alignment and ends east of Fullerton Road. This corridor is approximately 1.5 miles long and a majority of the new alignment is located on the southern portion of the BNA, and included the construction of multiple grade separated interchanges. The work involved in the Parkway Project includes grading, drainage, paving, bridges, noise walls, lighting, traffic signals, landscaping, signing and striping. Federal Lands is responsible for the design and construction of the Parkway Project as well as the coordination and facilitation of the overall schedule.

The project consisted of 4 Phases: 1 & 2 completed the Parkway & provided a major interchange into the adjacent military base, Phases 3 & 4 were only made possible by the stimulus package. Phase 3 provided interchange improvements and the removal of an at grade signalized intersection which was replaced by a bridge further enabling traffic flow through a heavily congested area. Phase 4 constructed a new interchange providing a direct link from the Parkway to the Interstate for high volume truck traffic formerly forced to route through a residential community. This project has corrected several decades-long traffic & access issues, while also providing for significant future planning. Given the traffic implications to the local community if this project did not move forward, it was often described as the most important project in the history of the area.

This project was distinguished with two presidential site visits and had a very high level of public involvement. Considered to be a highly political and sensitive project, it was touted as a Recovery Act success story in the press for advancing critically needed transportation projects.



*National Importance*

*Partnership*

*Public Involvement*

*Livability*

## Public/Private Partnership Projects

### Crescent Corridor Regional Intermodal Facilities

*Crescent Corridor — between Louisiana and New Jersey  
Partners: Norfolk Southern Railway Company, Alabama Department of Transportation (ALDOT), Tennessee Department of Transportation (TDOT)*

Norfolk Southern Railway Company initiated the Crescent Corridor Intermodal Freight Program of projects to develop a fast and efficient rail intermodal route from the Gulf Coast to the Northeast. When fully developed, this program of projects will provide new and improved domestic rail intermodal service between the Northeast and Southeast. Rail route enhancements and intermodal terminal development are required to provide the service necessary to create these public benefits. The Norfolk Southern Crescent Corridor Program was awarded a TIGER grant in the amount of \$105 million, split evenly towards the construction of two regional intermodal facilities in Memphis, Tennessee and Birmingham, Alabama.

The regional intermodal facilities are public-private partnerships, consisting of a \$97.5 million project to construct the Birmingham facility and adjacent infrastructure improvements, along with a \$105.1 million project to construct the Memphis facility and its adjacent infrastructure improvements. The combined \$105 million TIGER Grant will be coupled with additional funding from the Federal CMAQ Program, ALDOT, TDOT, and Norfolk Southern to fully construct these two facilities, our responsibilities include the coordination of the overall project schedules, oversight of TIGER funds used in design and construction, environmental compliance, as well as the execution of grant agreements, memorandums of agreement, and financial plans.



### National Gateway Corridor — Phase I

*National Gateway Freight Rail Corridor — North Baltimore, OH to Chambersburg, PA  
Partners: CSX Transportation Inc., Maryland, Ohio, Pennsylvania, Virginia, West Virginia*

The National Gateway Freight Rail Clearance Project (Phase I) is an \$188.6 million public-private partnership and improvement program that will enable double-stack trains to move more efficiently along the CSX Transportation Inc's (CSX) rail corridor and is supported by the states of Maryland, Ohio, Pennsylvania, Virginia, and West Virginia. Within Phase 1, there are 11 tunnels that have clearance deficiencies (unable to accommodate the height of double stack freight rail service). The CSX standards for double-stack operation specify a vertical clearance of greater than 21' above the top of the rail. In addition to the tunnel work, there are 29 other overhead obstructions that need to be removed or adjusted. These additional obstructions include: 8 bridge replacements; 8 bridge removals; 4 bridge raises; 2 bridge modifications; and 7 track modifications.

Upon full completion of Phase 1, the Project will create a highly efficient rail system connecting Midwest producers and consumers with mid-Atlantic ports and world markets. In addition to spurring economic growth throughout the region, this project will double intermodal capacity along the existing corridor without increasing noise, emissions, or the number of trains. FLH provided stewardship and oversight for the delivery of the National Gateway Corridor Project funded by a \$98 million grant under the TIGER Discretionary Grant Program. FLH responsibilities include: coordination of the overall project schedule; oversight of TIGER funds, environmental compliance, the execution of the grant agreement, memorandums of agreement, and the financial plan.



*National Importance*

*Collaboration*

*Multi-Modal*

*Sustainability*

## Our Expertise

Summaries of this year's highlights from a selection of FLH discipline teams:

### Acquisition

FLH was very successful in meeting Major Procurement Preference Program Goals. The FHWA and the USDOT Office of Small and Disadvantaged Business Utilization, reports annual procurement goals for awards to Small Business, Small Disadvantaged Business, Women-Owned Small Business, HUBzone, and Service-Disabled Veteran-Owned Small Businesses. FHWA Acquisitions extended special congratulations to FLH for their outstanding achievements in supporting the small business program, contributing to much of FHWA's success in meeting goals on socioeconomic contracting.

The Acquisitions Team developed policy positions on a DOT-wide directive relating to IT security requirements; background investigations for contractors; and provided coordination on all requests for comments/data calls, from FHWA Office of Acquisition Management, Office of the Secretary of Transportation, and the White House Office of Management & Budget.

### Asset Management

FLH Asset Management focuses on developing consistent approaches taking into account the various stages of understanding and implementation that exists amongst our partners, to identify incremental steps for improving how data and management systems are used to make informed, accountable transportation and resource allocation decisions.

Asset Management has several Pilot Programs and Transportation Improvement Plans underway this year to better facilitate assisting our partners with future plans:

FLH is conducting the Land Between the Lakes (LBL) Safety Pilot in partnership with the Forest Service, Kentucky and Tennessee State DOT's and Federal-Aid offices, and the USACE. LBL asked FLH to examine safety related issues from Strategic State Safety Plans to develop a Geographic Information System (GIS) layer for all crash data.

The Pilot is focused on the development of business practices for investigation, implementation and correction of safety related issues while developing a roadmap for the Forest Service to assist in the development of additional Safety Studies.

FLH is also conducting a Forest Highway Pavement Condition Update Pilot, making ground truth site visits to Minnesota, Texas and Florida. All data on the affected routes has been verified and will be used to develop maintenance and rehabilitation fixes for all the Forest Highways in Regions 8 and 9.

FLH Asset Management has provided technical support to the following partners: the US Fish & Wildlife Service Asset Management Refuge Transportation Program; the Texas Forest Highway Program for the Sabine, Angelina, Davy Crockett, and Sam Houston National Forests; the Texas State DOT.

### Bridge Inspection

FLH continues to work with Federal owners of public bridges to ensure that their bridge inventory data is accurate and current, that it conforms to the requirements set forth in the National Bridge Inspection Standards (NBIS), and that it is submitted annually to the National Bridge Inventory (NBI) as required by that regulation. These efforts help ensure that Federal agencies are addressing their bridge safety responsibilities.

Maintaining bridge inspection data and submitting it to the NBI is only one requirement of the NBIS. A strong bridge inspection program is also an essential factor in bridge safety and cost effective bridge management. Similar to the NBIS oversight process developed for State DOT bridge inspection programs, FLH is in the initial year of program reviews for the 19 Federal agencies that own, maintain, and perform safety inspections on their public vehicular bridges.

Because the Federal agency reviews encompass a diverse cross-section of organizations in varying degrees of compliance, and because the means of enforcing compliance differs between Federal agencies and State DOTs, a somewhat different approach is required. Efforts this year have centered on developing that approach as we complete the baseline intermediate level review for the USACE, our pilot agency. We expect this review to be completed by the end of the 2011, and intend to apply lessons learned during the process to determine the necessary strategy and resources for addressing the remaining agencies. We are also developing some outreach tools to assist in this undertaking.



## Our Expertise

### Environment

Environment succeeded in completing the FLH National Pollutant Discharge Elimination System (NPDES) initiative, resulting in an NPDES training curriculum. This curriculum was presented to 80 FLH employees representing Design, Environment, Project Management, Technical Services, Construction, Acquisitions and Planning. The Environment Team revised the FLH Construction Manual and Project Development & Design Manual to align with new NPDES requirements. A multi-agency steering committee meeting was conducted for the CTIP Greenroads Project. The CTIP project rated 7 FLH projects in both Greenroads and the FHWA sustainability rating systems. The Team achieved an Environmental Collaboration survey score of 85.2% and represented FLH at a national workshop for NCHRP 20-24(71), "Expediting NEPA Decisions and other Practitioner Strategies for Addressing High Risk Issues in Project Delivery" in support of the FHWA EDC initiative.

The Team also developed a stand-alone SWPPP binder template that includes all information required for project compliance with EPA and authorized state NPDES permits. Stand-alone SWPPP binders were developed for 38 projects under construction and delivered to Project Engineers for implementation at construction sites.

### Geographic Information Systems (GIS)

The GIS Team implemented a GIS NPS Pilot website for NPS Road Inventory Program (RIP) data and NPS safety management system data (crash data for approximately 35 parks). Provided technical oversight and design assistance for development of FLH Website development for NPS GIS data and FLH GIS data. This also includes continued development of the ArcSDE (Spatial Database Engine) set-up for FLH GIS data. Along with EFL, NPS GIS and Forest Service GIS data, CFL FWS and Forest Service data and WFL Forest Service data have been added to the SDE server for possible future Web development.

#### GIS highlights:

The NPS Navigator website has been upgraded to Silverlight technology allowing users to compare cycle 3 and 4 RIP data using a browser, eliminating the need for any specialized visualization software.

An eERFO program was deployed within the CFL division allowing ERFO applicants to apply, follow the approval process and create Programs of Projects on line allowing HQ to see real time locations and spending levels.

GIS tools were used to spatially locate crashes for the George Washington Memorial Parkway, Baltimore Washington Parkway and Clara Barton Parkway.

The GIS Team assisted Programs and FLH Asset Management staff with updates to Forest Highway inventory data for Forest Service Regions 8 and 9.

Assistance was also provided to the Road Inventory Program (RIP) and NPS providing GIS data for use in the creation of RIP reports.

GIS worked with other FLH teams in the determination of project locations by demonstrating new GIS tools in the new WEBserver and ArcGIS.

GIS analysis of ongoing Mississippi River and tributary flooding was provided to an FLH ERFO Coordinator to assist with determining potential for future flooding of federal roads. USACE inundation models were obtained and overlaid on FLH GIS routes to determine extent of flooding.

A GIS demonstration supporting development of a website for "Visualizing Federal Lands Projects Management Agency Management System Data", garnered interest and received special project funding from the FHWA Visualization Team. The Team is overseeing a contract to develop a technical memorandum identifying industry/government standard best practices to the NPS for data integration and management.

Work continues on building the GIS library, to date, over 1,000 layers have been acquired, organized, stored, and documented over 6 western states, US, and other extents. All Forest Service units GIS data in Oregon, Washington, Montana, Idaho, and Alaska have been loaded. Available data from other agencies are being acquired and loaded. (See <http://www.wfl.fhwa.dot.gov/programs/plh/fh/inventories.htm>).

Comprehensive crash data layers for the last 10 years are available for Oregon and Washington. The goal is to have this compiled for all WFL states.

A website has been developed for downloading FWS Road Inventory Reports. This website allows RIP data to be checked for quality in the field and uploaded to the server where the reports are created and then published to the web. Users can download information within days of collection a major savings of both time and money.

### Geotechnical Engineering

The Geotechnical Team advanced Geosynthetic Reinforced Soil (GRS) Integrated Bridge System (IBS) technology, EDC GRS-IBS modeling, quantity calculations, and standard CADD drawings. The result is currently being uploaded to the FHWA EDC website.

The second major accomplishment was collaboration between all three divisions and the Western Federal Lands Structural Testing System (STS) to develop the practitioners' eight questions on the realities of complex and unique soil nail wall design and construction versus current design and construction theory. A training course was developed that answered the eight questions and gave FLH geotechs greater insight on the behavior of soil nail walls.

FLH participated in the development of the National Geotechnical Improvement Program, 10 year plan. The plan has proposed development and improvement areas that FLH can support/assist with. Future FLH

## Our Expertise

geotech work plans will align to the national geotech improvement plan. The Geotech Team has participated in Decision Support System (DSS) seminar/training planning. To support the Program the geotech champion participated in the Office of Infrastructure Research & Technical Road Map development and submitted two Section 3.2.1 Initiative proposals which were Smart Roadway Instrumentation Protocols and Automatic Remote Continuous Monitoring in Urban and Rural Areas.

In January 2011, FLH took on the task of adapting the existing GRS-IBS design drawings and calculation methods to a standard design, drawing set, and quantities. This multidivisional effort was coordinated with the FHWA Turner Fairbanks Highway Research Center (TFHRC) and the FHWA Resource Center (RC).

The Geotech Team has been promoting the use of new automated slope monitoring technologies that are now being pursued jointly with TFHRC Geotechnical specialists. The FLH Team hosted the National Highway Institute Load and Resistance Factor Design for Highway Bridge Substructures (NHI LRFD) Seismic design course. FLH developed a Complex Soil Nail Design and construction inspection course that is being shared with our partners.



## Hydraulics

The Hydraulics Team completed a new Culvert Assessment Policy and Project Development Design Manual and provided edits to existing roadway drainage criteria and Aquatic Organism Passage (AOP) design policy. Four new Special Contract Requirements for culverts have been developed along with a pilot training course for Culvert Assessment and Decision-making. The Team evaluated the EDC initiative for GRS bridge abutments, while working to develop national competency requirements for the Hydraulics discipline. Design guidance documents Hydraulics Engineering Circular (HEC) 18, "Evaluating Scour at Bridges," and HEC 20, "Stream Stability at Highway Structures" and Hydraulic Design Series 5, "Hydraulic Design of Highway Culverts" to include discussion on culvert design for AOP were updated.



## Pavement & Materials

The Pavement & Materials Team had several accomplishments in support of the Warm Mix Asphalt (WMA) and Safety Edge EDC Initiative. All FLH Divisions have now successfully completed multiple WMA projects. All FLH Divisions continue to incorporate the safety edge specification into applicable projects, and all FLH Divisions have successfully completed at least one safety edge project with a total of four completed FLH-wide.

Review and recommendations were provided to Yellowstone National Park for a Highway Pavement Management Application (HPMA) prioritization report and participated in ground-truthing data on-site in Yellowstone. A Western Alliance for Quality Transportation Construction (WAQTC) support agreement was completed.

## Our Expertise

The Team partners with TFHRC to test and evaluate aggregate and binder and serves as members of the Expert Task Group (ETG) a group made up of national experts, who develop, test, evaluate, and implement new technologies and test methods in the areas of WMA, Pavement Smoothness, and Pavement Preservation. FLH team members participate in specification and design development and standardization through several nationwide and international groups.

The papers and presentations promoted collaboration, sharing of best practices, and uniformity.

### Planning

The FLH Planning Team is working collaboratively with our partners developing Long Range Transportation Plans (LRTPs) at the national, regional, and unit levels. National level plans are being developed in concert with NPS and FWS. Regional LRTPs for the NPS are under development in the Alaska, Northeast, and Intermountain Regions. Regional LRTPs for the FWS have been completed for Region 1 Northwest and are underway in Regions 3 Midwest and 4 Southeast.

The Planning Team held three FLMA Transportation Planning webinars featuring NPS, FWS, BLM and USFS. In collaboration with the partners, the Planning Team is currently updating the previously developed Transportation Planning Template. This new guidance document is 80% complete.

The Planning Team is providing support to the updates of General Management Plans (GMPs) and Comprehensive Conservation Plans (CCPs). The FLH is represented by two staff members in the FHWA Planning Leadership Council which sets the direction and provides guidance on the Planning Discipline agency wide. Other Planning staff members are serving as members of the Planning Discipline Team (PDT) established to support the activities of the Planning Leadership Council. FLH had strong participation in the FHWA Planning Discipline with several individuals chosen to participate on the Planning Leadership Council.

FLH completed the transportation plan elements of the CCP for the National Key Deer NWR and has initiated similar efforts in support of the Assabet River NWR and the Felsenthal & Overflow NWRs. Efforts in support of the Forest Service in statewide planning and improved project selection process development in both Region 8 Southern Region and Region 9 Eastern Region continue. The Planning Team continues to lead the FWS National ITS demonstration project with support from Central and Western staff. The Eastern staff is currently managing a congressionally requested study to investigate the potential widening of the Baltimore-Washington Parkway and participated in the Expert Working Group established to monitor the progress of two other multi-state regional highway corridor studies in the southeastern region.

Five Alaska Long Range Transportation Plans will be out for public comment by the end of December. The five Plans include: Alaska Federal Lands LRTP (known as the Umbrella Plan); USFWS Region 7, Alaska LRTP; Forest Service Alaska Region LRTP (the first to be Forest Service-wide instead of only Forest Highway routes); NPS, Alaska Region LRTP (the first for NPS) BLM, Alaska Region LRTP (the first for BLM).

The Oregon Forest Highway LRTP has been completed. Idaho, Washington, and Montana Forest Highway LRTPs are all in draft form and will be completed before the end of FY 12. WFL has a draft LRTP for the OMAD program. WFL has also been providing unit-level transportation planning assistance (transportation studies, CCP/GMP assistance, safety studies, traffic forecasting, etc) for NPS at Kenai Fjords, Olympic, North Cascades, Mt. Rainier, Crater Lake, Yellowstone, and Glacier National Parks; Forest Service at Mt. Hood, Mt. Baker Snoqualmie, Deschutes National Forests; USFWS at Deer Flat, Oregon Coast, William Finley, Basket Slough, Hart Mountain, Hagerman National Wildlife Refuges. FLH is also managing the USFWS Climate Change Mitigation Project, which provides a tool for refuges to track and reduce their greenhouse gas emissions.



### Project Management

The Project Management Team has developed several guidance documents to include: a draft Project Management Handbook; a lessons learned and best practices guide on implementation of Recovery Act projects; FLH Project Risk Management Policy and provided training on use of the FLH Project Management Risk Register; update to the Project Management Information Systems white paper; an operational guide of recommended uses for CMGC

## Our Expertise

and Design Build Innovative Contracting in support of EDC; a preliminary cost estimate risk review and estimate for the Arlington Memorial Bridge in our Nation's Capital, a tremendous bridge rehabilitation project in conjunction with the FHWA Office of Innovative Program Delivery.

For the second year in a row the George Mason University (GMU) Highway Design and Construction Laboratory course was held. The “hands on” course educates engineering students on the process of delivering highway projects. This accredited course was fully coordinated and administered by FLH staff.



### Safety

The Safety Team completed 13 safety studies at the following Parks: Acadia, Assateague, Cape Cod, Colonial, Fredericksburg/Spotsylvania, Gateway, Gettysburg, Shenandoah, Valley Forge, Hot Springs, Mammoth Cave, Yosemite, and Alaska Region surpassing the goal for 2011. The Team also held two Tribal Safety Management System Steering Committee meetings and plans to conduct a National Tribal Safety Summit in 2012.

### International Assistance — Qatar

The Middle Eastern country of Qatar is the world's leading exporter of liquified natural gas, as well as an exporter of oil. In the past decade, the country has undertaken massive development of their infrastructure, commercial and government high rise buildings, and new land development projects. This growth was further accelerated when the country became the successful bidder to host the 2022 International Federation of Football Association (FIFA) World Cup. The transportation infrastructure improvement program that will link the various events during the World Cup will be a critical component of the success of the World Cup and will also fulfill Qatar's long term vision of becoming an international financial center.

The Qatar Public Works Authority (Ashghal), requested FHWA assistance. As a first step toward a forging a relationship, the US Embassy in Doha invited a team of FHWA experts to visit Qatar in April 2011. Six FHWA employees representing a wide range of expertise participated in a two-week visit to Qatar to gain an understanding of the organization and its operating environment. The Review Team focused on the following areas of Qatar's transportation operations: transportation planning, highway design and safety, contract management and Quality Control/Quality Assurance, major projects, and operations and ITS. The Team conducted interviews with various governmental Ministry officials, the Qatar Olympic Committee, land development corporations, Architect/Engineering (A/E) firms that support the delivery of projects, and construction contractors. The Team also visited highway construction project sites, public transportation, and the central command center that monitors traffic congestion and incident response.

As a result of the review, the Team determined that Ashghal is well-positioned to take on the challenges of the rapid growth of their highway infrastructure. They have hired international A/E firms to help them manage a multi-billion dollar highway program and to provide management oversight of consultants and construction contractors. The Team identified areas of improvement, primarily in coordinating the multi-modal transportation programs (highways, bus and taxi services, future light rail, future freight rail, and a future high-speed subway system) that are managed by various agencies. The Team also identified possible areas of partnership between Qatar and FHWA such as: assisting with Qatar's transportation planning process, developing engineering standards that are used by international consulting firms, providing quality assurance reviews on major projects, Plans, Specifications & Estimates packages and construction processes, sharing technology, training and development.



## Our Expertise

From a FLH perspective, the FLH organization can support many partnership opportunities in the field of project delivery from preliminary engineering to construction management. FLH's expertise in project management and materials quality acceptance are two examples of how FLH can contribute to a future partnership with Qatar.

### International Assistance — Tanzania

At the request of Secretary Clinton, the U.S. State Department convened a 6-person delegation to travel to Tanzania to better understand the need, scope, impacts and alternatives for a proposed road through the Serengeti National Park. The Team included, representatives from FHWA, NPS, USFWS, U.S. Agency for International Development and the State Department. Team members participated in meetings in the German and U.S. embassies including a meeting with the Deputy U.S. Ambassador. They also met with agencies of the Tanzanian government including Tanzania National Parks (similar to the NPS) and the National Environmental Management Council (similar to EPA), as well as World Bank, the superintendent of Serengeti National Park and non-governmental organizations such as the Africa Wildlife Federation and the Frankfurt Zoological Society.

The Team drove extensively within Serengeti National Park examining the area along the proposed road alignment. The diversity and volume of wildlife in the park is amazing.



Travel also extended south of the park to provide the Team with a better understanding on opportunities associated with road alternatives outside of the park. Formal reports on team findings will be submitted to Secretary Clinton, and the U.S. Embassy with future distribution to the general public.

### The Coordinated Technology Implementation Program (CTIP)

The Coordinated Technology Implementation Program (CTIP) is responsible for evaluating, deploying, and promoting new and improved technological advances. This program is carried out in three ways: deployment, transfer, and assistance. The program is in cooperation with our FLMA's, providing a forum for identifying, studying, documenting and transferring technology to the transportation community and is funded through contributions from the Indian Reservation Roads, Forest Highways, and Refuge Roads Programs. In FY 2011, this funding was allocated through a theme based method, which resulted in a more focused approach for making investments in the FLH technology program. Focus this year was on alternatives for Wildlife Crossings, Climate Change, and Native Plant Usage in Roadside Revegetation.

CTIP co-sponsored the International Wildlife Crossing Infrastructure Design Competition. The FHWA FLH's funds were leveraged with those from other ARC Competition Partners of NPS, Forest Service, Colorado Department of Transportation, American Association of State Highway and Transportation Officials, Montana State University's Western Transportation Institute, Woodcock Foundation, and Edmonton Community Foundation.

The competition creatively took on this challenge, with the goal of ensuring the safety and mobility of both motorists and wildlife by allowing them to coexist through innovative engineering and architectural solutions. This aligns with FHWA Wildlife Vehicle Collision Reduction programs in the Office of Safety Research and Development, the Office of Project Development and Environmental Review, and the Office of Federal Lands Highway.

Competitors were asked to propose design concepts for a wildlife crossing at West Vail Pass on I-70 in Colorado, about 90 miles west of Denver. The only east-west Interstate in Colorado, I-70 is a critical transportation corridor. At the same time, it is a barrier, even called the Berlin Wall, to the movement of wildlife in the Rocky Mountain region. Designers had to account for many challenges unique to the West Vail Pass area, including snow and severe weather, high elevation and steep grades, a six-lane roadway, a bike path, and high traffic volumes, as well as multiple species of wildlife.

The goal was to identify more innovative, less expensive, broadly relevant structures that would better protect both wildlife and drivers and improve the overall safety of the roadway. In attracting broad international participation in the competition, the plan was also to generate enthusiasm in the transportation field to envision the solutions these crossings offer.

The competition garnered 36 submissions from 9 countries, generating some very useful and flexible design solutions. The submissions also offered many



## Our Expertise

suggestions on ensuring efficiency in construction with limited interruption of traffic while also allowing for adaptation to changing landscape/habitat conditions. Some examples included suggested use of:

- Pre-fabricated, pre-vegetated habitat modules that respond to local conditions. These modules can be added or removed as needed and can be switched out if local habitat conditions change
- Layered construction using stacked convex and concave “arcs”, or steel lattice with modular landscape inserts.
- Real-time monitoring of wildlife movement for both scientific and public educational purposes through various design features, for example, placement of cameras on the bridge that will download to smart phone apps, websites, information kiosks, and school classrooms.
- Viewing platforms from highway pullouts or a “periscope” for discreet observation internal to the bridge structure.
- Monitoring strategies designed to permit adaptive management of vegetation and habitat – and in several cases, the structure itself, designed to be replicated elsewhere, specific to different contexts.
- A variety of span sizes and widths to accommodate different habitat configurations
- Diversity of building materials including glued laminated timber, steel, ductile concrete (which is more compressive and resistant), glass reinforced plastic and wood core fiberglass, as well as innovative use of everyday materials such as pre-cast concrete.
- Consideration of a reduced animal load which results in lighter materials, increased cost effectiveness and improved safety
- Inverted arc shape which conveys the feeling of a valley for animals and results in more light for drivers and the roadway.
- Pillar-free structures which improve highway safety

Each of the competition finalists produced scale models of their proposed designs, which were recently displayed at the 2011 Transportation Research Board meeting, the Western Governors’ Association Wildlife Council, the Rayburn House Office Building, and the Vail Film Festival. Descriptions and photographs of each of the finalists’ designs can be found at: <http://www.arc-competition.com/>.



The CTIP program produced the following publications and products this year:

- Verification of Grouting Using 3D Seismic Technology
- 3D Induced Polarization and Seismic Imaging of Landslides
- Advanced InSAR Technology (SqueeSAR™) For Monitoring Movement of Landslides
- Road Dust Management and Future Needs 2008 Conference Report
- Wildlife Crossing Structures Handbook Design and Evaluation in North America
- Rock Slope Design Guidelines for Context Sensitive Solutions
- Guidelines for Temporary Traffic Control
- Assessing the Impacts of Climate Variability on Transportation Infrastructure
- Best Management Practices for Road Design and Construction
- Current and Innovative Solutions to Roadside Revegetation Using Native Plants
- Successful Roadside Revegetation Using Native Plants
- Fabric Interlayer Application Pocket Guide

These products are available through FLH and FHWA websites.

## Developing Our Workforce

### Learning and Development

FLH has continued its learning and development commitment by attracting new, highly qualified entry-level, employees through the Student Temporary Employment Program/Student Career Employment Program (SCEP/STEP) programs, Summer Transportation Intern Program for Diverse Groups (STIPDG), and FHWA's Professional Development Programs (PDP). Because of well developed recruitment programs in all the offices, we have attracted highly qualified entry level employees in both the professional and technical fields. Our SCEP/STEP programs had 32 employees and our STIPDG program had 1 employee. We sponsored 7 Pilot PDPs, 2 Decentralized PDPs, and 20 PDP participants on assignments, and 7 Development Program participants.

We also provided developmental opportunities for our existing workforce. Eleven FLH employees had details to Federal Aid. Sixteen employees had details in division developmental assignments, 8 in leadership positions, 1 Eastern Rotational assignment, other in-house assignments and support to efforts in Afghanistan. We also provided 3 assignments to other FHWA employees from Federal Aid and Turner Fairbanks and 1 assignment for a President Management Fellow from Federal Transit Administration.

We continue to promote leadership training to managers. Five GS-13 employees attended competitive leadership development programs to include: the American Association of State Highway and Transportation Officials (AASHTO) National Transportation Management Conference, and the Building a Foundation for Visionary Leadership. Three GS-14/15 managers attended leadership development programs to include, the AASHTO National Transportation Leadership Institute; and the Office of Personnel Management (OPM) Executive Development Series — Leading Organizations.

It was a successful year for training, from the standpoint of FLH providing technical training to FHWA as well as from the standpoint of having FLH employees gain Federal Aid experience. All of these programs continue to support our efforts of attracting and retaining a highly qualified workforce dedicated to accomplishing our mission.

### FHWA Leadership Development Academy

The FHWA Leadership Development Academy (LDA) provides an opportunity for FHWA employees to improve their leadership skills. The LDA is designed to elevate competency in working effectively with others to achieve intended results. The primary focus of the Academy is Emotional Intelligence — self-awareness, self-management, and building relationships.

The LDA is open to all grade levels and lasts for 6 months. Classes conducted within the Federal Lands Divisions are open to all FHWA employees within their vicinity.

Two programs were held in 2011, graduating a total of 47 FHWA employees. The class held by EFL accommodated 23 participants which included: 2 from the



Virginia Division Office, 2 from the Delaware/Maryland Division Office and 2 from Headquarters, Office of Policy Information. The remaining participants were from EFL. Participants were coached by 2 EFL employees/managers, 1 from the Virginia Division Office, 1 Turner Fairbanks, and 1 from FHWA Headquarters. The graduation was hosted by the EFL Division Engineer, Melisa Ridenour on April 5, 2011 with FHWA Executive Director, Jeff Paniati in attendance as the featured speaker.

The class held by WFL accommodated 24 participants which included: 2 from the Washington Division Office, 2 from the Oregon Division Office, 1 from the Idaho Division Office, 2 from the Montana Division Office, 3 from the California Division Office, and 2 from the Alaska Division Office. Participants were coached by 3 WFL employees/managers and 1 from the Washington Division Office. A panel discussion titled "Leadership and the Importance of Personal Development" was held on graduation day and participants included the Division Administrators from the Alaska and Oregon Divisions, and the Assistant Division Administrator from the Washington Division. The graduation was hosted by the WFL Engineer, Clara Conner on April 26 with FLH Associate Administrator, John Baxter in attendance as the featured speaker.

### Hiring

FLH exceeded our goal for the number of new hires with disabilities. A total of nine individuals were hired through the Wounded Warriors program; the Vet2Fed Program; Disabled Veterans; and targeted disabilities. Several Schedule A and targeted disability candidates were considered for four open positions.

## Awards & Recognition

### Partner Recognition

#### **National Park Service Arrowhead Award**

Award Criteria: In recognition of Partnership

Recipient: *Park Road Program Teams, WFL*

#### **Fairfax County, Virginia Team Excellence Award**

Award Criteria: In recognition of the outstanding efforts of groups of employees, often from different agencies, with interdisciplinary membership coming together to accomplish a specific goal.

Recipients: *Base Realignment & Closure (BRAC) Team, EFL members — Robert Morris, Kurt Dowden & Tim Brown*

#### **National Geospatial Intelligence Agency Star Partner Award**

Award Criteria: Exhibiting corporate behavior, setting positive examples, and dedication to the shared goals of a project team.

Recipients: *Fairfax County Parkway Project Team, EFL — Robert Morris, Kurt Dowden & Tim Brown*

### Project Awards

#### **American Public Works Association (APWA),**

##### **Public Works Project of the Year**

#### **American Council of Engineering Companies (ACEC),**

##### **Grand Conceptor Award**

#### **American Segmental Bridge Institute,**

##### **Award of Excellence, 2011**

#### **Structural Engineers Association of Arizona (SEAOA),**

##### **Excellence in Structural Engineering**

#### **American Council of Engineering Companies (ACEC),**

##### **National Grand Award**

#### **International Bridge Conference (IBC), Eugene C. Figg Medal**

#### **American Road & Transportation Builders Association (ARTBA)**

##### **Globe Award**

#### **American Council of Engineering Companies of Nevada (ACEC-NV), Grand Award**

##### **Finalist - ASCE 2012, Outstanding Civil Engineering Award (To be announced 3/2012)**

#### **Transportation Development Foundation, Globe Award**

#### **The Society for Protective Coatings, E. Crone Knoy Award**

Award Criteria: Varied

Recipient: *Hoover Dam Bypass Project, CFL*

### DOT Award

#### **DOT Sustainability Awards**

Award Criteria: This award commemorates the Department's commitment to sustainability principles. In keeping with the spirit of this award, non-local award recipients will be recognized via video conferencing technology to minimize the use of energy and any emissions intensive travel to the award ceremony.

Recipients: *Green Team, WFL — Dan Donovan, George Snyder, Wendy Hull, Telina Thompson, Brian Harrison*

### FHWA Awards

#### **Secretary's Operation New Dawn Service Award — Ribbon**

Award Criteria: This award recognizes U.S. Military Reservists and civilian employees within who have served and continue to serve our nation in Iraq, Afghanistan, and the Middle East.

Recipient: *Matthew Joerin, WFL*

#### **Administrator's Award for Superior Achievement**

Award Criteria: This is the highest honor award given by the Federal Highway Administration's Administrator and nominations reflected significant contributions in advancing FHWA's Strategic Goals.

Recipients: *Merry McKay, WFL; Brent Coe, WFL; Mr. Allen Grasmick, CFL; Mr. Curtis Scott, CFL; Mitchell A. King, EFL; James F. Larscheid, EFL*

#### **FHWA Administrator's Leadership Award**

Award Criteria: This award honors individuals at all levels who have exhibited extraordinary leadership in advancing FHWA's goals and mission.

Recipient: *Walt Stong, WFL*

#### **Administrator's Award — Excellence in Teamwork**

Award Criteria: This award recognizes teams that have achieved substantial results above and beyond normal expectations.

Recipients: *Futures Team, CFL — Ed Hammontree, Curtis Scott, Mark Meng, Wendy Longley, Bryant Gonsalves, Rick Simansons, Bob Bowden, Scott Hogan, & Ryan Tyler*

#### **FHWA Administrator's Organizational Excellence Award**

Award Criteria: This award is the highest honor for FHWA organizations. It recognizes organizations that can be viewed as models because of the results they have achieved.

Recipients: *CFL Project and Resource Controls Team — Mike McCann, Lydia Adams, Matt Demarco, Bryant Gonsalves, Scott Hogan, Chris Longley, and Mike Will*

#### **FHWA's Engineering Excellence Award**

Award Criteria: This award was established to recognize the tremendous contributions FHWA engineers make to the safe and efficient movement of people and goods in this country. Nominees are judged on the significance of their engineering contributions, education, professional honors, and community contributions.

Recipient: *Dave Zanetell, Program Manager, CFL*

#### **FHWA's Northern Human Resources Committee (NHRC) Award**

Award Criteria: This award recognizes employees of FHWA that exhibit and/or provide outstanding leadership as part of implementing the requirements of their position.

Nominee: *Patricia Mark, Financial Integrity Review & Evaluation (FIRE) Program Manager, EFL*

### FLH Award

#### **The 2011 Carol H. Jacoby Honorary Award**

Award Criteria: The Carol H. Jacoby Honorary Award is FLH's most prestigious award, which annually recognizes employees who most exemplify the characteristics and traits demonstrated by Mrs. Carol H. Jacoby throughout her career in FLH.

Recipient: *Kevin Black, Highway Construction Manager, CFL*

Nominees for this award: *Robert Sparrow, HQ; Thomas A. Johnson, EFL; Hratch (Rich) Pakhchanian, EFL; Peter C. Field, WFL; Adam L. Ahola, WFL*

### Other or Outside Award

#### **Meritalk — An online community network of government IT professionals developed as a partnership among the Federal Business Council, Federal Employee Defense Services, Federal Managers Association, GovLoop, USO, and WTOP/WFED radio.**

Award Criteria: This is a merit award measuring entries based on innovative thinking, potential savings, and ease of implementation. A panel of judges from public and private sectors, the academic community, Members of Congress, corporate and Federal executives choose five finalists from more than 1,000 worldwide entries. The winning submission was for ideas to use Information Technology to improve the quality of Government. The concept was to create a centralized national database to catalog Government assets; for instance, unused automobiles, construction equipment, and office space to ensure full use.

Recipient: *Aung Gye, Transportation Planning Team Leader, FLH HQ*

## Our Key Business Metrics

Goal/Objective	Performance Measures	Accomplishments
<b>Key: NL — National Leadership    SP — System Performance    PD — Program Delivery    CC — Corporate Capacity</b>		
<b>PD-1: Leverage Funding</b>	45% of annual awards comprised of non-FLHP fund	FLH — 59.8%
<b>PD-2: Context Sensitive Solutions (CSS)</b>	4.6 Self Assessment Score	<p>FLH has been and continues to be a leader in the implementation of CSS. To measure continuous improvement in this area, FLH conducts an annual self assessment utilizing the FHWA CSS Implementation Worksheet. Each Division assigns ratings to 5 categories of implementation (policies, training, integration, stakeholder involvement and interdisciplinary teams) and computes an average score. Scores from each Division are compiled and used to establish an annual FLH score. Major accomplishments that contributed to the “exemplary” FLH score of 4.6 include the following: Two CSS-related publications were produced through the FLH Technology Deployment Program (Wildlife Crossing Structure Handbook - Design and Evaluation in North America; and Context Sensitive Rock Slope Design Solutions). Both are located on the CFL TD web page; Seven FLH projects were rated in both the Greenroads and FHWA sustainability rating systems. These case studies will be included in another TD publication (Sustainability Best Practices for the Office of Federal Lands Highway) recently approved for release; Work continues on the FLH CSS web page. The recent FHWA directive on social media provided the framework to move forward on the web page and post videos from case studies to a beta version of the web page; Development of Long Range Transportation Plans (LRTPs) for the FH program in each state continues. These plans not only reflect CSS principles but include the involvement of new stakeholders; We continue development of regional LRTPs for Park Roads, Refuge Roads and Forest Highway programs.</p>
<b>PD-3: Technology Deployment</b>	90% of technologies displayed	<p>The calculated score for 2011 is 100%; A training curriculum to improve NPDES compliance has been identified. Initial training will be completed in early FY 2012; Training targets are Construction, Hydraulics, Environment and Highway Design. Training will include storm water pollution and will consist of 40-80 hours in a three year period offered via webinar, video conference and also on site.</p> <p>(a) Percent of Technology Deployed as part of TD Roadmap: 100% (10/10)            (b) Funds Obligated: 100%            (c) Percentage increase in technologies deployed per year: 100% (10/9)            (d) Deploy a number of technologies multiple times across multiple FLMA's: 100% (5/5)            (e) Publish/present deployment results for distribution in transportation community: 100% (12/10)</p>
<b>PD-4: Road Measure</b>	1600 miles (includes IRR) by End of FY 11	Total = 3655 lane miles improved ( <i>Represents Awarded Projects</i> )
<b>PD-5: Bridge Measure</b>	50 improved (includes IRR) by End of FY 11	Total = 91 ( <i>Represents Awarded Projects</i> )
<b>PD-6: Long Range Transportation Planning</b>	50% of LRP with transportation components implemented regionally or by tri-agency, as appropriate for FLHP	FLH exceeded the goal with a score of 51%!

## Our Key Business Metrics

Goal/Objective	Performance Measures	Accomplishments
<b>PD-7: Partner Satisfaction</b>	85% ≥ or based on results of 3 surveys	Based on results of 3 surveys; Construction Completed Project Survey: 88% with 61 respondents; Project Development Survey: 90%, with 79 respondents; Planning and Programming Partner Survey: 80%, with 102 respondents We exceeded our goal with a Customer Satisfaction Composite Score of 86.2% !
<b>PD-8: Obligations</b>	95% or ≥ FLHP obligated by End of FY 11	IRR: 96%; Park Road: 99% Refuge Road: 99% Forest Highway: 73%  Overall: 90.4% ( <i>approximate</i> ) This shortfall is attributed to the late appropriation (March 18) and the inability to borrow/loan between Forest Highway states and the Economic Recovery program required us to deplete most of our shelf projects, which have taken away from our flexibility over the last 2 years to match program amounts to needs in each state.
<b>PD-9: Funds on the Ground</b>	75% or ≥ of dollars obligated on road improvements minus program delivery obligations by End of FY 11	The 4th Quarter total was 72%; Using FLHP funds for Construction Engineering (CE) on remaining Recovery Act projects may have brought this number down. (FY 2010 was 71%, FY 2009 was 73%, FY 2008 was 74%.) The overall number is very close to the previous few fiscal years, which had been between 71% and 74%. The FY 2011 number was expected to remain under our target, due to our using FLHP funds for CE on ongoing Recovery Act projects. We had made the commitment to use FLHP funds to finish these projects and assumed it would drag our overall “on the ground” number down a little.
<b>PD-10: Environmental Streamlining</b>	90% of Environmental Documents completed on schedule (36 month EIS/12 month EA)	92 of 97 actions were completed for 95% on CE's. Median duration for FONSI was 18 months. The vast majority of projects approved for final design by the Federal Lands Divisions were categorically excluded from the requirement to prepare an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). Divisions completed five EAs and there were no EISs completed. Four of the five EAs were delivered as originally scheduled for a score of 80%. The median duration for completing the 5 EAs is 18 months. This median duration fails to meet the FHWA target of 12 months. In fact, all 5 projects required more time than the FHWA median target of 12 months. Target was based on 5 EAs and one legacy project covering 5 to 6 years made target unobtainable.
<b>PD-11: Environmental Collaboration</b>	85% or ≥ results of surveys distributed to resource, regulatory and partner agencies	FLH accomplished the goal with a score of 85.2%! The target of 85% or greater was achieved in each of the last 3 years. Forty Environmental Collaboration Surveys were completed for 34 FLH projects.
<b>CC-12: Employee Satisfaction</b>	70% or ≥ employees satisfied with jobs by end of HRMC Cycle	Overall FLH Score = 70%

## Looking Ahead

As can be seen from this year's project profiles, discipline reports and program accomplishments, FLH always manages to step up to the task at hand through our passion, quality and leadership. As proven through the Recovery Act, FLH continues to demonstrate flexibility, innovation, and resourcefulness to achieve results. Delivering a larger Federal Lands program at current staffing levels is both sensible and achievable.

### National Leadership

FLH has worked hard at addressing emerging climate change, sustainability and livability issues as part of transportation planning, program development and project/program delivery this year. We have succeeded in planning for the future by conducting in depth analysis in the form of two "Futures" papers examining the Indian Reservation Roads (IRR) Program and Federal Lands Organizational Structure. In consideration of the growing number of tribes negotiating directly with FHWA, we have examined the possible ramifications of FHWA managing various levels of the IRR program in lieu of the Bureau of Indian Affairs. The Federal Lands Organizational Structure paper establishes a scenario forum to determine the impact from various changes with many options already analyzed. All this information will drive the development of our next 5-year Business Plan.

We have focused on advancing our policies to build a surface transportation authorization proposal. As stated before, reauthorization holds an uncertain future and many challenges and opportunities for FLH will arise. While we have provided technical assistance on proposed legislation, it remains to be seen as to what bill will be crafted by Congress and when it will pass. The proposed legislation provides both opportunity and challenge with new partners, new programs and uncertainty as to who will deliver these projects. FLH will work hard to forge and refine these new relationships, to develop in partnership performance-based measurements, and to grow our level of productivity.

### System Performance

We are committed to continuing our efforts to coordinate with Federal owners of public bridges to assess their inspection efforts and the quality and accuracy of data provided to us for the National Bridge Inventory System (NBIS) database. This ongoing effort will help Federal agencies identify bridge repair, rehabilitation and construction needs and ultimately provide the public with safer and more reliable Federal bridges. Now that the initial pilot program review for the U.S. Army Corps of Engineers bridges will be completed, the lessons learned from this review will be implemented into the next Federal agency reviews. Program reviews of the remaining agencies will begin in FY 2012.

It has taken several years to initiate long-range transportation planning with many of our partners. In the last few years, dramatic headway has been achieved and long-range transportation planning for various state and

Federal Lands are in place. Continuing efforts nationwide will build upon current successes and become more prevalent on a regional basis. The goals established through these regional plans will contribute towards moving into performance management programs.

### Program Delivery

As our Deputy Administrator pointed out about the Every Day Counts (EDC) initiative: "It's your hard work and dedication that has made EDC such a success. We were impressed and gratified when the White House recently acknowledged EDC as an effective strategy to accelerate project delivery." Efforts to support the FHWA EDC initiatives in project delivery this year were of tremendous value. Federal Lands will continue to deploy new technology and innovation. This includes additional contracting methods and faster construction techniques to further expand our capability and expertise in project delivery.

Successful implementation and close-out of Recovery Act projects will be complete and FLH will be ready for the next challenge future legislation will present us. We expect these opportunities will come from our present partners as well as new ones — federal, state and local agencies. And we see that there will continue to be strong transportation needs to support military operations. We have made many strides in the delivery of the IRR program both in providing necessary oversight and in forging strong relations with the tribes; this will only bring us more success in the future.

To meet the Office of Management and Budget's Sustainable/Energy Scorecard, all Federal Agencies are now required to ensure 95% of new contract actions, task orders and delivery orders for products and services are energy efficient (Energy Star or FEMP designated), water efficient, bio-based, environmental preferable EPEAT certified, non-ozone depleting, contain recycled content, or non-toxic or less toxic alternatives where such products and services meet agency performance requirements. FLH will evaluate our current contracting actions to determine the current level of sustainability within our contracts. While FLH includes options for many recycled materials within its contracts now, this may be taken to an even further level of sustainability by requiring a minimum usage of green products and materials within the contracts. This may have a substantial impact on construction contract bid prices!

### Corporate Capacity

FLH is expected to experience a significant number of retirements over the next 10 years as the Baby Boomer generation switches to a more relaxed career. These retirements may be accelerated or delayed depending on how Congress and OPM adjust the Federal retirement system. Whatever happens, FLH must continue robust training and recruitment for the future.

## Looking Ahead

At present FLH has been maintaining its workforce primarily through the Student Career and Student Temporary Employment Programs (SCEP and STEP), as well as through the Professional Development Program (PDP). In FY 2012, an evaluation will be completed of the FLH PDP Pilot Program. The Office of Human Resources and FLH developed the FLH Pilot Program in 2009 which provides for FLH participation and assistance in providing design, construction and specialized training for engineer participants. The Program

review will evaluate the programs efficiency and recommend changes to the current program's implementation.

We will also focus on making sure our supervisors and team leaders are equipped to take on their important duties of mentoring and coaching our people to carry-out the important work for which we are responsible. This includes a special focus on both first-time and front-line supervisors/team leaders through training, peer-exchanges, coaching and networking.



*Saddle Road, Hawaii — with a view of Mauna Loa in the background*

We look forward to the coming months as we gear up for new challenges and make headway on the many initiatives that have been identified by the DOT, FHWA and the Office of the President. Leadership would like to thank all the employees within the Office of Federal Lands Highway for their hard work and dedication to our mission as we strive for continued success throughout this fiscal year.

Appendix A Funding Tables

FLH Program Allocations and Obligations							
FLH Programs	Authorization/ Allocation Made Available	Program Changes	Transportation Planning Set-Aside	Prior Year Funds	Total Funds Available	Total Obligations	Amount Carried Over Into FY12
Indian Reservation Roads (IRR)	\$447,750,000	\$(33,133,500)		\$49,898,462	\$464,514,962	\$445,090,479	\$19,424,483
New Indian Reservation Roads Bridge Program (IRRBP)	\$14,000,000	\$(1,036,000)		\$112,539	\$13,076,539	\$12,943,787	\$132,752
Park Roads and Parkways (PRP)	\$240,000,000	\$(18,871,200)		\$2,394,005	\$223,522,805	\$221,181,012	\$2,341,793
Public Lands Highway (PLH):							
Forest Highway (FH)	\$198,000,000	\$(15,568,740)	\$(6,000,000)	\$61,009,374	\$237,440,634	\$172,909,305	\$64,531,329
Public Lands Highway Discretionary (PLH-D)	\$102,000,000	\$(8,020,260)	\$(3,350,000)	\$127,247,298	\$217,877,038	\$87,756,029	\$130,121,009
Public Lands Highway Transportation Planning (PLH-TP)	\$0	\$0	\$9,350,000	\$1,389,422	\$10,739,422	\$300,002	\$10,439,420
Refuge Roads Program (RRP)	\$29,000,000	\$(2,280,270)	\$0	\$5,960,253	\$32,679,983	\$32,466,941	\$213,042
<b>TOTAL FLHP</b>	<b>\$1,030,750,000</b>	<b>\$(78,909,970)</b>	<b>\$0</b>	<b>\$248,011,354</b>	<b>\$1,199,851,384</b>	<b>\$972,647,554</b>	<b>\$227,203,829</b>



Appendix A Funding Tables

Indian Reservation Roads (IRR) Program						
IRR Program	IRR Program	Obligations	Balance	IRRBP Program	Obligations	Balance
Authorized Amount	\$447,750,000			\$14,000,000		
FLHP Changes: *	\$(33,133,500)			\$(1,036,000)		
Prior Year Funds Made Available: **	\$49,898,462			\$112,539		
Total Available for Use:	\$464,514,962			\$13,076,539		
<b>Distribution of Funds</b>						
<b>Amount Distributed to Federal Lands Divisions:</b>						
EFL	\$50,000	\$50,000	\$0	\$0	\$0	\$0
CFL	\$129,100	\$129,100	\$0	\$0	\$0	\$0
WFL	\$1,485,367	\$1,485,367	\$0	\$165,000	\$165,000	\$0
Amount Distributed to FHWA Tribes:	\$107,148,000	\$107,148,000	\$0	\$5,598,220	\$5,598,220	\$0
Amount Distributed to BIA:	\$348,879,626	\$331,825,399	\$17,054,227	\$7,180,567	\$7,180,567	\$0
Amount Distributed to FLH:	\$4,452,613	\$4,452,613	\$0	\$0	\$0	\$0
Unallocated:	\$2,370,256		\$2,370,256	\$132,752		\$132,752
TOTAL	\$464,514,962	\$445,090,479	\$19,424,483	\$13,076,539	12,943,787	\$132,752
*IRR and IRRBP reductions reflect a lop-off of 7.4% per SAFETEA-LU Section 1102(f).						
**Prior Year Funds Made Available include prior year carryover and August redistribution						

Park Roads and Parkways (PRP) Program			
PRP Program	PRP Program	Obligations	Balance
Authorized Amount	\$240,000,000		
FLHP Changes: *	\$(18,871,200)		
Prior Year Funds Made Available: **	\$2,394,005		
Subtotal Available for Use:	\$223,522,805		
<b>Distribution of Funds</b>			
<b>Amount Distributed to Federal Lands Divisions:</b>			
EFL	\$73,694,810	\$73,615,219	\$79,591
CFL	\$61,356,515	\$61,256,031	\$100,484
WFL	\$34,956,773	\$34,134,509	\$822,264
FHWA Office of Environment and Planning:	\$0	\$0	\$0
Amount Distributed to NPS:	\$52,175,253	\$52,175,253	\$0
Amount Distributed for August Redistribution:	\$0		\$0
Unallocated:	\$1,339,454	\$0	\$1,339,454
TOTAL	\$223,522,805	\$221,181,012	\$2,341,793
*PRP reductions reflect a lop-off of 6.4% per SAFETEA-LU Section 1102(f)			
**Prior Year Funds Made Available include prior year carryover and August redistribution			

Appendix A Funding Tables

Public Lands Highway (PLH) Program									
PLH Program	PLHD	Obligations	Balance	FH	Obligations	Balance	Planning ***	Obligations	Balance
<b>Authorized Amount *</b>	\$102,000,000			\$198,000,000			\$0		
<b>FLHP Changes: **</b>	\$(8,020,260)			\$(15,568,740)			\$0		
<b>Transportation Planning Set-aside ***</b>	\$(3,350,000)			\$(6,000,000)			\$9,350,000		
<b>Prior Year Funds Made Available: ****</b>	\$127,247,298			\$61,009,374			\$1,389,422		
<b>Total Funds Available for Use:</b>	\$217,877,038			\$237,440,634			\$10,739,422		
<b>Distribution of Funds</b>									
<b>Amount Distributed to Federal Lands Divisions:</b>									
EFL	\$7,011,977	\$6,643,805	\$368,172	\$31,071,296	\$25,808,258	\$5,263,038	\$100,000	\$88,411	\$11,589
CFL	\$5,610,000	\$5,349,757	\$260,243	\$64,819,590	\$61,741,640	\$3,077,951	\$110,000	\$111,590	\$(1,590)
WFL	\$2,566,223	\$2,356,845	\$209,378	\$77,328,225	\$70,674,280	\$6,653,944	\$150,000	\$100,000	\$50,000
<b>Amount Distributed to Forest Service:</b>	\$373,393	\$373,393	\$0	\$14,685,127	\$14,685,127	\$0	\$2,197,994	\$0	\$2,197,994
<b>Amount Distributed to BIA:</b>	\$18,465,827	\$18,465,827	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to NPS:</b>	\$2,516,735	\$2,516,735	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to USFWS:</b>	\$940,100	\$940,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to USACE:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$1,933,802	\$0	\$1,933,802
<b>Amount Distributed to BOR:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$454,830	\$0	\$454,830
<b>Amount Distributed to BLM:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$1,889,000	\$0	\$1,889,000
<b>Amount Distributed to Air Force:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$0	\$500,000
<b>Amount Distributed to Army:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250,000	\$0	\$1,250,000
<b>Amount Distributed to Navy:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$565,122	\$0	\$565,122
<b>Amount Distributed to States:</b>	\$48,450,736	\$51,109,566	\$(2,658,830)	\$0	\$0	\$0	\$30,000	\$0	\$30,000
<b>Amount Distributed for August Redistribution:</b>	\$121,780,355		\$121,780,355	\$40,000,000		\$40,000,000	\$0		\$0
<b>Unallocated</b>	\$10,161,691	\$0	\$10,161,691	\$9,536,396	\$0	\$9,536,396	\$1,558,674	\$0	\$1,208,674
<b>TOTAL</b>	\$217,877,038	\$87,756,029	\$130,121,009	\$237,440,634	\$172,909,305	\$64,531,329	\$10,739,422	\$300,002	\$10,439,420
<p>*PLH authorized amount reflects .50% reduction for Lake Tahoe MPO Set-aside per 23 USC 134(f)(3)(C)(ii)(II).  **PLH reductions reflect a lop-off of 6.4% per SAFETEA-LU Section 1102(f)  ***Transportation Planning funds are made available from PLHD and FH Programs. Planning column shows distribution information on these set-aside funds.  **** Prior Year Funds Made Available include prior year carryover and August redistribution.</p>									

Appendix A Funding Tables

Refuge Roads (RRP) Program				
RRP Program		Obligations	Balance	
Authorized Amount*	\$29,000,000			
FLHP Changes: **	\$(2,280,270)			
Prior Year Funds Made Available: ***	\$5,960,253			
<b>Subtotal Available for Use:</b>	<b>\$32,679,983</b>			
<b>Distribution of Funds</b>				
<b>Amount Distributed to Federal Lands Divisions:</b>				
EFL	\$6,290,774	\$6,250,062		\$40,712
CFL	\$10,729,009	\$10,581,155		\$147,854
WFL	\$679,068	\$661,971		\$17,097
<b>Amount Distributed to USFWS:</b>	<b>\$13,323,754</b>	<b>\$13,323,754</b>		<b>\$0</b>
<b>Amount Distributed to States:</b>	<b>\$1,650,000</b>	<b>\$1,650,000</b>		<b>\$0</b>
<b>Amount Distributed for August Redistribution:</b>	<b>\$0</b>			<b>\$0</b>
<b>Unallocated:</b>	<b>\$7,378</b>	<b>\$0</b>		<b>\$7,378</b>
<b>TOTAL</b>	<b>\$32,679,983</b>	<b>\$32,466,941</b>		<b>\$213,042</b>
*RRP authorized amount reflects a .50% reduction for Lake Tahoe MPO Set-aside per 23 USC 134(f)(3)(C)(ii)(II)				
**RRP reductions reflect a lop-off of 6.4% per SAFETEA-LU Section 1102(f).				
***Prior Year Funds Made Available include prior year carryover and August redistribution.				

Non Title 23 Funds			
Non Title 23 Funds	Defense Access Roads	Air Force Operations & Maintenance	Total
Authorization/Allocation/Made Available	\$187,294,715	24,754,000	\$212,048,715
Program Reductions	\$0	\$0	\$0
Prior Year Funds	\$0	\$278,102	\$278,102
<b>Total Available for Use:</b>	<b>\$187,294,715</b>	<b>\$25,032,102</b>	<b>\$212,326,817</b>
<b>TOTAL OBLIGATIONS</b>	<b>\$72,573,672</b>	<b>\$24,212,025</b>	<b>\$96,785,697</b>

Appendix A Funding Tables

Other Title 23 Funds												
OTHER TITLE 23 FUNDS	CMAQ	Equity Bonus Program	ERFO	High Priority Projects Program	High Priority Projects Program SAFETEA-LU	Highway Safety Improvement Program	Lake Tahoe Metro Transportation Planning	National Highway System	National Highway System, Territories	Projects of Regional and National Significance	Scenic Byways Program	Section 112, Surface Transportation Project
<b>Amount Made Available*</b>	\$9,400,000	\$8,633,942	\$21,000,000	\$0	\$12,223,410	\$240,000	\$4,717,970	\$267,457	\$21,477,527	\$0	\$0	\$0
<b>Prior Year Funds Made Available:**</b>	\$0	\$829	\$101,124,248	\$4,361,528	\$23,000,887	\$0	\$9,654	\$0	\$794,347	\$58,523	\$104,200	\$2,378,310
<b>Subtotal Available for Use:</b>	\$9,400,000	\$8,634,771	\$122,124,248	\$4,361,528	\$35,224,297	\$240,000	\$4,727,624	\$267,457	\$22,271,874	\$58,523	\$104,200	\$2,378,310
<b>Distribution of Funds ***</b>												
<b>Amount Distributed throughout Federal Lands:</b>												
<b>EFL</b>	\$9,400,000	\$1,441,817	\$18,369,595	\$0	\$11,302,139	\$0	\$0	\$267,457	\$20,080,000	\$58,523	\$0	\$0
<b>CFL</b>	\$0	\$0	\$8,538,482	\$0	\$19,556,769	\$0	\$4,627,624	\$0	\$0	\$0	\$0	\$0
<b>WFL</b>	\$0	\$7,192,125	\$9,871,627	\$0	\$4,365,340	\$0	\$0	\$0	\$0	\$0	\$0	\$2,378,310
<b>Amount Distributed to NPS:</b>	\$0	\$0	\$1,525,359	\$175,020	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to Forest Service:</b>	\$0	\$0	\$18,151,172	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to BIA:</b>	\$0	\$0	\$36,557,031	\$4,093,772	\$0	\$240,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to USFWS:</b>	\$0	\$0	\$10,830,188	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Amount Distributed to USACE:</b>	\$0	\$0	\$1,603,754	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Unallocated</b>	\$0	\$829	\$16,677,041	\$92,736	\$50	\$0	\$100,000	\$0	\$2,191,874	\$0	\$104,200	\$0
<b>TOTAL</b>	\$9,400,000	\$8,634,771	\$122,124,248	\$4,361,528	\$35,224,297	\$240,000	\$4,727,624	\$267,457	\$22,271,874	\$58,523	\$104,200	\$2,378,310
<b>Obligations</b>	\$(9,400,000)	\$9,240,399	\$(89,881,575)	\$(4,206,380)	\$(20,897,881)	\$(240,000)	\$(4,593,648)	\$(261,466)	\$(17,702,749)	\$90,092	\$0	\$(2,365,551)
<i>Obligations: Negative indicates net obligation activity for FY, Positive indicates net de-obligation activity for FY</i> <i>* Includes all program reductions</i> <i>** Includes restatement of prior year funds to our partners</i> <i>*** These figures do not reflect allocations made by other offices within FHWA</i>												

Appendix A Funding Tables

Other Title 23 Funds continued													
OTHER TITLE 23 FUNDS	Section 115, PL 108-199	Section 117, PL 108-447	Section 129, PL 110-161	Section 162, JFK Center Road and Plaza	Section 1940, Going To The Sun Road	Section 330 (or 344), SURF TRAN PRJ SEC 344 108-7	Section 330 (or 344), SURF TRAN PROJ GP 108-7	Section 378, Miscellaneous Projects	Surface Transportation Program	Surface Transportation Research	TIGER Discretionary Grant Program	Transportation Improvement Programs	Totals
<b>Amount Made Available*</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,537,508	\$510,000	\$203,000,000	\$2,416,802	\$322,424,616
<b>Prior Year Funds Made Available:**</b>	\$3,364,035	\$2,843,725	\$479,341	\$4,859,871	\$1,704,208	\$230,326	\$1,525,556	\$1,523,912	\$0	\$538,186	\$0	\$3,235,502	\$152,137,189
<b>Subtotal Available for Use:</b>	\$3,364,035	\$2,843,725	\$479,341	\$4,859,871	\$1,704,208	\$230,326	\$1,525,556	\$1,523,912	\$38,537,508	\$1,048,186	\$203,000,000	\$5,652,304	\$474,561,806
<b>Distribution of Funds ***</b>													
<b>Amount Distributed throughout Federal Lands:</b>													
<b>EFL</b>	\$0	\$0	\$0	\$4,859,871	\$0	\$0	\$0	\$302,908	\$10,195,900	\$120,000	\$203,000,000	\$2,974,908	\$282,373,117
<b>CFL</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,027,451	\$0	\$0	\$1,627,394	\$61,377,720
<b>WFL</b>	\$0	\$0	\$0	\$0	\$1,421,494	\$0	\$0	\$0	\$1,314,517	\$150,000	\$0	\$796,403	\$27,489,814
<b>Amount Distributed to NPS:</b>	\$0	\$1,360,312	\$447,741	\$0	\$119,242	\$230,326	\$0	\$0	\$0	\$0	\$0	\$0	\$3,858,001
<b>Amount Distributed to Forest Service:</b>	\$121,195	\$4,989	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,277,356
<b>Amount Distributed to BIA:</b>	\$29,507	\$1,103,930	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,024,240
<b>Amount Distributed to USFWS:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,830,188
<b>Amount Distributed to USACE:</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,603,754
<b>Unallocated</b>	\$3,213,334	\$374,493	\$31,600	\$0	\$163,472	\$0	\$1,525,556	\$1,221,004	\$(360)	\$778,186	\$0	\$253,600	\$26,727,616
<b>TOTAL</b>	\$3,364,035	\$2,843,725	\$479,341	\$4,859,871	\$1,704,208	\$230,326	\$1,525,556	\$1,523,912	\$38,537,508	\$1,048,186	\$203,000,000	\$5,652,304	\$474,561,806
<b>Obligations</b>	\$(150,701)	\$(2,415,598)	\$(447,741)	\$(3,873)	\$(1,510,701)	\$(152,898)	\$(1,146,175)	\$189,984	\$(38,536,869)	\$(964,465)	\$(203,000,000)	\$(1,125,940)	\$(389,483,736)
* Includes all program reductions													
** Includes restatement of prior year funds to our partners													
*** These figures do not reflect allocations made by other offices within FHWA													

Appendix B Construction Contracts Awarded

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Indian Reservation Roads (IRR) — project information provided in narrative pg. 10-11					
Park Roads and Parkways (PRP)					
Alaska	Denali National Park	AK PRA DENA 10(28)	Replace Culverts on 15 miles of paved park road	Culvert replacement	\$3,944,807
Arkansas	Multiple - BUFF, ARPO, CHSC, FOSM, HOSP and PERI	MWR_PMS(AR)	Buffalo National River, Arkansas Post National Memorial, Little Rock Central HS and Fort Smith Historic Sites, Hot Springs National Park, and Pea Ridge National Military Park.	MWS Pavement Preservation Pilot — Arkansas	\$1,705,500
California	Pacific West Region	CA NPS/PRA CABR PRES 1(10)	Cabrillo & Santa Monica National Park Pavement Preservation	Pavement restoration and rehabilitation	\$857,219
California	Sequoia National Park	CA PRA SEKI 10(9A)	Halstead Meadows Bridge	Bridge Reconstruction	N/A
California	Yosemite National Park	CA PRA YOSE 16(6)	El Portal Road Rockslide	Repair and stabilize rock slide	\$85,426
California	Sequoia National Park	CA PRA SEKI 13(1)	Disney Bridge	Bridge Reconstruction	\$77,800
District of Columbia	National Mall and Memorial Parks	NAMA_10(2)	Constitution Avenue	Rehabilitation of Constitution Ave from 15th Street to 23rd Street	\$10,257,910
Florida	Canaveral National Seashore	CANA_10(1)	Playalinda Beach Road and parking areas	Leveling and Overlay	\$1,679,274
Georgia	Chickamauga and Chattahoochee National Military Park	CHCH_13(2)	Alexander's and Slough Bridges	Rehab. 2 bridges on Alexander's Bridge Road.	\$1,598,256
Hawaii	Volcanoes National Park	HI PRA HAVO 10(1)	Crater Rim Drive	Reconstruction, rehabilitation, pulverizing, asphalt pavement overlay, subexcavation, drainage improvements; plus restoration & rehabilitation on pavement preservation	\$15,012,579
Hawaii	Volcanoes National Park	HI PLH HAVO 10(3)	Mauna Loa Access Road		
Hawaii	Haleakala National Park	HI NPS HALE 1(11)	Haleakala National Park Pavement Preservation		
Hawaii	All Parks in Hawaii	HI PRA/NPS PWR 1(11)	All Parks in HI Pavement Preservation		
Hawaii	Volcanoes National Park	HI PRA/NPS HAVO 1(11)	Hawaii Volcanoes Pvmnt Pres	Pavement restoration and rehabilitation	\$818,377
Indiana	Indiana Dunes National Lakeshore	INDU_215(2)	County Line Road Bridge	Replace Deck	\$344,156

Appendix B Construction Contracts Awarded

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Park Roads and Parkways (PRP) — continued					
Indiana	Indiana Dunes National Lakeshore	INDU_211(1)	East State Park Road and Beverly Drive	Rehab. East Park State Road, Beverly Drive (1.2 miles), Mt. Baldy Intersection	\$1,707,830
Kentucky	Mammoth Cave National Park	MACA_20(1)	Rehabilitation of the Main Entrance Road	Rehabilitation of the Main Entrance Road	\$763,096
Mississippi	Natchez Trace Parkway	NATR_3H23_J10	MP 181 to MP 204 Ramp to MS Highway 9, Jeff Busby Park Area	NATR Parkway rehabilitation, MP 181 - 204	\$3,269,809
Mississippi	Natchez Trace	NATR_3W12	Coles Creek Bridge	Coles Creek Bridge Painting	\$346,480
Mississippi	Natchez Trace	NATR_3A15	Bear Creek Bridge	Bear Creek Bridge Painting	\$500,074
Montana	MT Glacier National Park	MT PRA/NPS GLAC PRES 1(11)	MT Glacier NP Pavement Preservation	Pavement restoration and rehabilitation	\$335,946
Montana	Glacier National Park	MT PRA GLAC PW(2)	Park Wide Traffic and Quality Control	Parkwide Traffic and Quality Control for ongoing projects.	\$2,001,462
Montana	Glacier National Park	MT PRA GLAC 10(22)	GTSR Rehab - Phase VII Avalanche to West Tunnel	Grading, Pavement, Base, Drainage, and Structures	\$5,790,291
Nevada	Lake Mead Recreational Area	NV PRA LAKE 1(5C)	Las Vegas Wash Bridge Repairs	Bridge repair	\$172,118
Nevada/ South Dakota	Midwest	NE/SD PRA/NPS MWR-PRES 1(11)	Midwest Region Pavement Preservation	Pavement restoration and rehabilitation	\$2,334,635
New Mexico	Petroglyph National Monument	NM PRA PETR 10(1)	Rehabilitate Main Route	Pavement rehabilitation, grading, drainage, asphalt surfacing, and parking lot construction	\$316,292
North Carolina	Blue Ridge Parkway	BLRI_2M24	Blue Ridge Pkwy (MP 344)-reconstruct/repave the access ramp to Highway 80, include an overlook on Highway 80	Blue Ridge Pkwy (MP 344)-reconstruct/repave the access ramp to Highway 80, include an overlook on Highway 80	\$180,981
North Carolina	Blue Ridge Parkway	BLRI_2S17	Ferrin Knob and Big Witch Tunnels	Ferrin Knob Tunnel #1	\$90,720
North Carolina	Blue Ridge Parkway	BLRI_2Y13	Big Witch Tunnel	Big Witch Tunnel	\$361,160
Utah	Capitol Reef National Park	UT PRA CARE 10(1)	Scenic Drive	Road reconstruction, pulverize existing pavement, asphalt pavement, chipseal, low water crossing replacement & improvements, drainage improvements, grading & other miscellaneous improvements	\$3,363,877

Appendix B Construction Contracts Awarded

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Park Roads and Parkways (PRP) — continued					
Utah	Intermountain Region	UT/WY PRA/NPS IMR PRES 1(11)	DINO,FOBU,GOSP,TICA Pavement Preservation	Pavement restoration and rehabilitation	\$4,122,714
Virginia	George Washington Memorial Parkway	GWMP_1A107	NB GWMP near first scenic overlook	Slide repair on NB GWMP near first scenic overlook	\$411,650
Virginia	Blue Ridge Parkway	BLRI_BMS_NC(2)	MP 222 to MP 469	Excavating and patching bridge approaches, milling and asphalt overlay, and other miscellaneous work	\$482,399
Washington	Olympic National Park	WA PRA OLYM 103(3)	Sol Duc Valley Road	Structure excavation; granular backfill, wall repair; tie back and anchoring, aggregate base, and asphalt paving.	\$2,343,593
Washington	Mount Rainier National Park	WA PRA MORA 13(4)	Stevens Canyon	Compaction Grouting, deep patch, paving, and stone masonry	\$2,332,368
Wyoming	Grand Teton National Park	WY PRA GRTE 13(9)	North Park Road, Utilities and Slope Stabilization	Parkwide Traffic and Quality Control for ongoing projects.	\$745,870
Public Lands Highway (Forest Highway (FH) & Public Lands Highway Discretionary (PLHD))					
Alaska	Tongass National Forest	AK PFH 40-1(1)	Kake to Seal Point Road	Grading, base, aggregate surfacing, drainage, and retaining walls	\$8,512,866
Arizona	Apache National Forest	AZ PFH 49-1(1) & AZ ERFO 49-1(2)	Apache Trail Retaining Walls	Retaining wall repairs, slope stabilization	\$1,430,112
Arizona	Tonto National Forest	AZ PFH 51-1(2)	Control Road	Bridge Replacement	\$5,847,030
Arkansas	Ozark National Forest	AR_FSR_1003(1)	FDR 1003	Repair of storm damaged roads in Ozark National Forest	\$1,523,857
Arkansas	Osark - St. Francis National Forest	AR_FSR_1201B(1)ETC	Gravel Pit Road and Sulphur Road	Repairs to roadways damaged by flooding and storms.	\$617,574
California	Six Rivers National Forest	CA PFH 148-1(1), 148-1(2) & 149-1(3)	Trinity County Bridges	Bridge replacement, grading, drainage, hot asphalt concrete pavement	\$10,532,113
Colorado	Pike National Forest	CO PFH 81-1(3)	Tarryall Creek Road	Road reconstruction: grading, drainage, rockery wall, aggregate base, asphalt surfacing, and bridge construction	\$9,564,628
Colorado	Arapaho National Forest	CO PFH 80-1(3)	Guanella Pass Horse Trail & Bridge	Horse trail grading, drainage, retaining walls, surfacing and bridge construction	\$1,142,181
Georgia	Chattahoochee National Forest	GA_PFH_2(1)	FSR 70, Tallulah River Road Bridge Replacement	FSR 70, Tallulah River Road Bridge Replacement	\$488,637
Georgia	Chattahoochee and Oconee NF	GA_FSR_54C1	Abe Gap Road, Red Root Road	Repair several damaged sites on FSR in Chattahoochee and Oconee Forests	\$1,021,988



*Appendix B Construction Contracts Awarded*

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Public Lands Highway (Forest Highway (FH) & Public Lands Highway Discretionary (PLHD)) — continued					
Hawaii	Honokohau Harbor Access Road	HI PLH HONO 10(1)	Honokohau Harbor Access Road	Road Reconstruction	\$575,241
Idaho	Sawtooth National Forest	ID PFH 25(3)	Idaho City - Stanley Highway; Goat Creek & Iron Creek	Culvert Replacement, Grading, Paving and Striping	\$636,601
Idaho	Salmon-Challis National Forest	ID PFH 88-1(1)	Yankee Fork Road	Asphalt overlay, retaining walls, rockfall fence, bridge repair, and drainage	\$2,525,303
Idaho	St. Joe National Forest	ID PFH 50(7)	St. Joe River Road	Drainage, two fish passage pipes, subexcavation, milling, recycled asphalt base, and paving	\$6,413,015
Montana	Custer National Forest	MT PFH 90-1(1)	East Fork Otter Creek Road	Grading, Drainage, Subexcavation, Excavation, Roadway Obliteration, Srufacing, and Monumentation	\$5,461,734
Montana	Lolo National Forest	MT PFH 71-1(1)	Petty Creek Road	Grading, drainage, aggregate base adn paving, bridge replacement	\$5,525,514
Montana	Lewis and Clark National Forest	MT PFH 76(1)	Charles M Russell Memorial Way	Treated base aggregate, paving, structures	\$310,522
Nevada	Soldier Creek Wilderness	NE PFH 7-1(4)	Soldier Creek Road	Road rehabilitation, grading, aggregate surface, and drainage improvements	\$349,510
Oregon	Siskiyou National Forest	OR PFH 60(2)	Powers to Agness Highway	Grading, Drainage, Paving and Bridge	\$4,707,204
South Dakota	Black Hills National Forest	SD PFH 17-1(7)	Hill City to Lead	Road reconstruction, grading, drainage, retaining walls, aggregate base, & asphalt surfacing	\$2,233,663
Utah	Fishlake National Forest	UT PFH 29-1(1)	Beaver to Junction	Road reconstruction, paving base, grading, retaining walls, and drainage	\$10,026,425
Virginia	Wolf Trap National Park for the Performing Arts	VA_PLH_WOTR_267(1)	Pedestrian Bridge over Dulles Access & Toll Road	Pedestrian Bridge over Dulles Access & Toll Road	\$3,579,281
Washington	Olympic National Forest	WA PFH 5(1)	Quinault South Shore Road, Pedestrian Enhancement	Asphalt sidewalk and asphalt parking areas	\$93,856
Wyoming	Carbon Co & Med Bow National Forest	WY PFH 26-1(2)	Sage Creek Road	Road construction (4R), grading, drainage, and aggregate surfacing	\$9,112,765
Refuge Roads (RRP)					
Alabama	Wheeler National Wildlife Refuge	WLR_10(2)	Rockhouse Bottoms Road	Embankment Protection	\$164,014
California	Stone Lakes National Wildlife Refuge	CA RRP STLA 11(1) & 904	Entrance Road & Parking Lot	Grading, drainage, and paving	\$1,500,394

*Appendix B Construction Contracts Awarded*

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Refuge Roads (RRP) — continued					
Colorado	Alamosa National Wildlife Refuge	CO RRP ALAM 100(1)	Bluff Overlook Drive	Aggregate surface course, grading and drainage	\$259,971
Delaware	Bombay Hook National Wildlife Refuge	BMH_10(1)	Bombay Hook National Wildlife Refuge Auto Tour Route	Bombay Hook National Wildlife Refuge Auto Tour Route	\$853,968
Georgia	Bond Swamp National Wildlife Refuge	BND_102(1)_103(1)	Repair Route 102, Route 103, Route 903 (parking entrance), and Beaver Swamp Trail	Repair Route 102, Route 103, Route 903 (parking entrance), and Beaver Swamp Trail	\$853,636
Louisiana	Sabine National Wildlife Refuge	SBN_169(1)_171(1)	Vastar and Northline Bridges and Parking Area	Replacement of Vastar Road Bridge, Northline Bridge and repair of Northline PA - LA2008-1-FWS	\$1,799,822
Maryland	Patuxent Research National Wildlife Refuge	PRR_14(2)_16(2)	Rehab of Bald Eagle Drive, Visitor Center Entrance Road and Wildlife Loop	Rehab of Bald Eagle Drive, Visitor Center Entrance Road and Wildlife Loop	\$2,836,380
New York	Iroquois National Wildlife Refuge	IRO_10(1)	Feeder Road and Parking Areas	Rehab. Feeder Road and 10 parking areas	\$402,823
North Dakota	Des Lacs National Wildlife Refuge	ND RRP DESL 11(2)	Lower Lake Road	Grading, drainage and aggregate surfacing	\$895,701
Oklahoma	Wichita Mtn National Wildlife Refuge	OK RRP WIMO 10(2)	Entrance Road	Grading, drainage, and surfacing	\$3,824,715
Puerto Rico	Vieques National Wildlife Refuge	VEQ_104(1)	La Chiva Lagoon Bridge	Replacing Bridge	\$1,333,225
Tennessee	Hatchie National Wildlife Refuge	HTC_11(1)	Oneal Lake Road	Oneal Lake Wildlife Drive (Route 11)	\$550,473
Utah	Ouray National Wildlife Refuge	UT RRP OURA 10(2)	Entrance Road	Pavement widening and drainage improvements	\$1,449,972
Other Title 23					
Alabama	Not Applicable	Birmingham_Intermod	Norfolk Southern Crescent Corridor Intermodal Freight Rail Project	Birmingham Intermodal Facility-Crescent Corridor	\$52,500,000
Alaska	Walden Point Road	AK BIA AIR 7(8)	Walden Point Road Paving	Road Reconditioning, Paving, Signing and Striping	\$7,704,490
Alaska	Atka Road	AK DEN 2009(11)	Atka Roads Surfacing	Grading and Surface Course Placement	\$1,010,853
Alaska	AHKIOK Tsunami Shelter Road	AK DEN 2009(14)	AHKIOK Tsunami Shelter Road Surfacing	Culvert extension, road surface regrading, ditch grading	\$153,200

*Appendix B Construction Contracts Awarded*

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Other Title 23 — continued					
Alaska	Gakona Village School Road	AK DEN 2007(4)	Gakona Village School Road Rehab	Grading, base, paving and drainage	\$1,007,896
Alaska	Manley Hot Springs	AK DEN 2009(7)	Manley Hot Springs Community Streets	Grading, drainage and base	\$1,609,974
Alaska	Akiak Road	AK DEN 2009(5)	Akiak Road Rehabilitation	Grading, Base, Drainage and Stabilization	\$3,051,938
Alaska	Metlakatla-Walden Point	AK DEN 2011(1)	Metlakatla-Walden Point	Pavement removal and asphalt overlay	\$479,150
California	Angeles National Forest	CA ERFO 13(2)	Various Sites - Six Rivers 2010	Grading, paving, aggregate base course, drainage, and reinforced fill	\$1,174,605
California	Angeles National Forest	CA ERFO 2(1)	MT Lowe Road Angeles 2010	Grading, rock fall protection, portal repair, and mechanically stabilized earth wall	\$479,436
California	Golden Gate National Recreation Area	CA NPS GOGA 433(1)	Point Bonita Lighthouse Bridge	Bridge Reconstruction	\$1,547,047
California	Lassen Volcanic National Park	CA NPS LAVO 10(4)	Lassen Park Road	Slope repair and reinforcement and paving	\$129,850
California	Sequoia National Park	CA NPS/PRA SEKI PRES 1(10)	Sequoia/Kings Canyon Pavement Pres	Pavement restoration and rehabilitation	\$8,967,902
California	Yosemite National Park	CA PRA/NPS YOSE PRES 1(11)	Yosemite NP Pavement Preservation	Pavement restoration and rehabilitation	\$2,815,110
Colorado	Minuteman Missile Access Road	CO OMAD 300 (56b)	Minuteman Missile Access Road	Aggregate surface course, intersection & roadway widening	\$5,716,031
Colorado	Minuteman Missile Access Road	CO OMAD 300 (56a)	Minuteman Missile Access Road	Aggregate surface course, intersection & roadway widening	\$5,526,800
Colorado	White River National Forest	CO ERFO 307(1), CO ERFO 415(1), CO ERFO 906(1)	Pitkin Coal Creek 2010, Brush Creek Road 2010, Garfield Coal Creek 2010	Grading, paving, drainage, reinforced fill, rock embankment, slide repair	\$528,578
Florida	Eglin Air Force Base	R_AD_SR_85(1)	Eglin Air Force Base Highway 85 Overpass	Eglin Air Force Base Highway 85 Overpass	\$10,898,562
Hawaii	Honokohau Harbor Access Road	HI PLH HONO 10(1)	Honokohau Harbor Access Road	Road Reconstruction	\$575,241
Montana	Minuteman Missile Base Roads	MT OMAD 18(47)	Minuteman Missile Base Roads	Treated base aggregate, paving, structures	\$4,516,286
Nevada	Great Basin National Park	NV NPS/SNP GRBA 705(1)	Strawberry Creek Bridge	Bridge Reconstruction	\$185,385

Appendix B Construction Contracts Awarded

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Other Title 23 — continued					
Ohio and Pennsylvania	Not Applicable	NATIONAL_GATEWAY_RR	National Gateway Project	Railroad Corridor Clearance Projects	\$98,000,000
Tennessee	Not Applicable	Memphis_Intermodal	Norfolk Southern Crescent Corridor Intermodal Freight Rail Project	Memphis Intermodal Facility-Crescent Corridor	\$52,500,000
Texas	Anahuax National Wildlife Refuge	TX FWS ANAH 10(2)	Various Roads	Grading, drainage, paving and bridge replacement	\$5,022,713
Utah	Green River State Park	UT ERFO 129(1)	Mineral Canyon Road	Rock embankment, grading, aggregate surfacing	\$750,000
Virgin Islands	US Virgin Islands Department of Public Works	VI_0A30(035)_C5	Long Bay Road	Landscaping and Irrigation	\$320,360
Virgin Islands	US Virgin Islands Department of Public Works	VI_66(9)_C4	Christiansted Bypass	Final paving, street lights & traffic signals	\$5,906,446
Virgin Islands	US Virgin Islands Department of Public Works	VI_30(35)_C2	Frenchman Bay Road	Reconstruction and Widening of Frenchman Bay Road	\$7,917,130
Virginia	Fort Lee	VA_A_AD_JPR(1)	Jefferson Park Road Intersection near Gate A at Fort Lee	Jefferson Park Road Intersection near Gate A at Fort Lee	\$2,294,000
Virginia	Ft. Belvoir	VA_A_AD_48(2)	Old Mill Road, Mount Vernon Memorial Highway, Richmond Highway and Telegraph Road	Fort Belvoir Connector Road Phase II	\$10,442,473
Washington	Gifford Pinchot National Forest	WA FS ERFO 2009(1)-22(2)	Benham Creek Permanent Repair	Bridge installation, bridge abutments, approach roads	\$1,356,889
Washington	Mt Baker-Snoqualmie National Forest	WA FS FDR 23(1)	White Chuck River Road Decommissioning	Roadway reconditioning and surfacing, drainage, and roadway decommissioning	\$434,019
Washington	Mt Baker-Snoqualmie National Forest	WA FS ERFO 091-2003	Tacoma Pass Road FSR 52 Emergency Repair	Realignment and reconstruction of roadway	\$229,825
Washington	Olympic National Park	WA NPS OLYM 11(1)	Lake Crescent Riprap Bank Armoring	Excavation and riprap	\$603,950
Wyoming	Grand Teton National Park	WY PLD GRTE 700(1)	Grand Teton Park Pathways, Phase II	Grading, aggregate base, asphalt, concrete paving, pedestrian bridge and underpass	\$4,297,942

*Appendix B Construction Contracts Awarded*

Construction Contracts Awarded					
State	Name	Project #	Location	Type of Work	Amount \$Million
Other Title 23 — continued					
Wyoming	Intermountain Region	WY PRA/NPS GRTE PRES 1(12)	Grand Tetons National Park Pavement Preservation	Pavement restoration and rehabilitation	\$1,101,220
Wyoming	Medicine Bow National Forest	WY ERFO 261(1)	Cedar Pass (Turpin Res) Road	Grading, aggregate surace course, drainage, and reinforced soil slope	\$835,239
Wyoming	Shoshone National Forest	WY HPP 4_1(6)	Beartooth Highway	Roadway realignment, reconstruction, grading, drainage, aggregate base, hot asphalt concrete pavement, guardrail and bridge	\$2,264,983

## Appendix B Construction Projects Completed

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Indian Reservation Roads (IRR) — project information provided in narrative pg. 10-11									
Park Roads and Parkways (PRP)									
Alabama	Natchez Trace Parkway	PRA-NATR 2A15	Lindsey Creek, Threet Creek and County Road 85 Bridges	Reconstruction of 3 bridges	0.88	1.76	3	\$5,275,062	
Arizona	Grand Canyon National Park	AZ PRA-GRCA 15(1) & 12(3)	Hermit & South Entrance Road	Grading, drainage, and surfacing	20.54	41.08		\$13,366,428	
Arkansas	Buffalo National River	PRA-BUFF 10(1)	Buffalo Point Campground Access	Asphalt overlay on Buffalo Point Campground Access Road & Beach Access Road	1.66	3.32		\$673,058	
California	Yosemite National Park	CA NPS-YOSE 16(3)	Cascades Dam, Yosemite National Park	Dam removal and roadway paving	0.28	0.56		\$1,504,035	
California	Redwood National Park	CA PRA-REDW 102(1)	Alder Camp Road	Asphalt milling, overlay, and drainage improvements	4.10	8.20		\$2,687,494	Y
California	Lassen National Park	CA PRA-LAVO 10(3)	Lassen Park Road	Roadway reconditioning and overlay	44.20	88.40		\$6,738,843	Y
California	Yosemite National Park	CA PRA-YOSE 15(1)	Glacier Point Road	Pulverizing, hot asphalt concrete pavement, and drainage	10.94	21.88		\$8,596,745	Y
California	Lassen National Park	CA PRA-LAVO 10(2)	Lassen Park Road	Chip seal, pulverizing pavement, asphalt overlay, sub excavation, embankment reconstruction, and drainage	39.74	79.48		\$10,039,717	
California	Yosemite National Park	CA PRA-YOSE 14(4)	Wawona Road	Pulverizing, Hot Asphalt Concrete Paving and Drainage	48.81	97.62		\$18,616,216	Y
California	Yosemite National Park	CA PRA-YOSE 500(1)	Valley Loop Road	Pulverizing, hot asphalt concrete pavement, and drainage	14.40	28.80		\$19,313,816	
Colorado	Colorado National Monument	CO PRA-COLM 10(2)	Rim Rock Drive, Colorado National Monument	Road construction, drainage and asphalt surfacing	0.32	0.64		\$432,473	
Colorado	Rocky Mountain National Park	CO PRA-ROMO 10(5)	Trail Ridge Road	Pulverizing, asphalt surfacing, & sub excavation	21.56	43.12		\$6,961,239	Y
Colorado	Intermountain Region	CO PRA/NPS IMR-PRES 1(08)	Pavement Preservation, Canyonlands National Park	Pavement preservation and restoration	179.06	358.12		\$7,076,283	

*Appendix B Construction Projects Completed*

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Park Roads and Parkways (PRP) — continued									
Colorado	Mesa Verde National Park	CO PRA-MEVE 10(9)	Main Entrance Road, Mesa Verde	Pulverize, stabilize base course, asphalt pavement overlay and drainage	42.88	85.76		\$12,001,183	Y
Colorado	Mesa Verde National Park	CO PRA-MEVE 10(8) & 200(1)	Chapin & Wetherill Roads, Mesa Verde	Pulverize pavement, double chip seal, stabilize base course, asphalt pavement & drainage.	51.28	102.56		\$14,219,715	
Maine	Acadia National Park	PRA-ACAD ITS-FOT	Acadia National Park	Intelligent Transportation Systems	0.40	0.08		\$288,455	
Michigan	Pictured Rocks National Lakeshore	PRA-PIRO 15(1)	Little Beaver Road and RV Return Route	Aggregate surface course overlay, roadway reconstruction; roadway widening, parking lot recon	3.10	3.60		\$359,855	
Mississippi	Natchez Trace Parkway	MISC-NATR 3O18	Bridge over U.S. Highway 51	Bridge girder repairs	0.00	0.01	1	\$55,000	
Mississippi	Natchez Trace Parkway	PRA-NATR 3H24	Replacement of the bridge over Pigeon roost Creek, Repair to bridge over Columbus & Greenville Railroad	Bridge Replacement and Repair	0.16	0.32	1	\$2,955,899	
Mississippi	Natchez Trace Parkway	PRA-NATR 3S10,T7,W11	NTP Milepost 8-20 and 37-88	Pavement rehabilitation	42.6	85.20	1	\$12,514,053	
Mississippi	Natchez Trace Parkway	PRA-NATR 3X5,6	Grading, drainage, paving	Grading, drainage, paving, 7 bridges from Liberty Road to US 61	8.70	17.40	7	\$28,630,395	
Montana	Glacier National Park	MT NPS GLAC PR 1(10)	Glacier National Park	Pavement Preservation	43.30	86.60		\$4,437,533	
Montana	Glacier National Park	MT PRA GLAC 10(33)	GTSR Crystal Point to Haystack	Grading, pavement, base, drainage, and structures	1.99	3.98		\$13,765,522	
Montana	Glacier National Park	MT PRA GLAC 10(36)	GTSR Scaling/Stone Surfacing	Locate stone sources, collect stones	0.1	0.10		\$403,338	
Nevada	Lake Mead National Park	NV PRA-LAME 1(8)	Northshore Road	Rehabilitation, drainage, and bituminous surfacing	4.81	9.62	2	\$13,272,952	
New Mexico	Capulin Volcano National Monument	NM PRA-CAVE 10(1)	Carlsbad Caverns	Road rehabilitation, parking area rehabilitation and drainage	14.00	28.00		\$7,012,423	

*Appendix B Construction Projects Completed*

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Park Roads and Parkways (PRP) — continued									
North Carolina	Blue Ridge Parkway	PRA-BLRI 2T13	Buck Springs Tunnel	Replace tunnel drainage chases, mill & overlay	0.13	0.25		\$387,235	Y
North Carolina & Virginia	Blue Ridge Parkway	PRA-BLRI IDIQC-TO#2	Bridges from MP 115 to 393	Bridge repairs			19	\$430,667	
Pennsylvania	Allegheny Portage Railroad National Historic Site	PRA-ALPO 10(1),900(1)	Visitor Center Road and Parking Area	Mill and overlay and spot reconstruction	0.40	0.80		\$730,315	
Pennsylvania	Johnstown Flood National Memorial	PRA-JOFL 900(1)	Visitor Center Access Road and Parking Area	Reconstruction	0.07	0.14		\$780,398	
South Carolina	Fort Sumter National Monument	PRA-FOSU 10(1),900(1)	Park Entrance Road Route 10 and parking area Route 900	Rehab entrance road and parking area	0.19	0.78		\$267,761	
South Dakota	Wind Cave National Park	SD PRA-WICA 11(2) & 12(1)	Visitor Center & Cave Access Roads	Visitor Center and Cave Access Roads	16.84	33.68	2	\$5,074,687	
Tennessee	Foothills Parkway	PRA-FOOT 8G14	Slide area near MP 15.10	Restoration and stabilization	0.09	0.19		\$642,293	
Tennessee	Natchez Trace Parkway	PRA-NATR 1J15	Replace bridge over TN Highway 13	Bridge Replacement	1.29	2.58	1	\$3,357,654	
Tennessee	Foothills Parkway	PRA-FOOT 8E13	Foothills Parkway	Construction of Foothills Parkway from Sta 24+477 to 25+600 and from Sta 25+600 to 26+120, including one girder bridge	0.40	0.80	1	\$4,016,378	
Tennessee	Foothills Parkway	PRA-FOOT 8E15	Bridge over Happy Hollow Road	Bridge repair	0.23	0.90	1	\$4,434,753	
Tennessee	Foothills Parkway	PRA-FOOT 15A32	Foothills Parkway	Roadway rehabilitation	6.40	18.40		\$6,871,362	
Texas	Big Bend National Park	TX PRA-BIBE 13(5)	Big Bend West Entrance Road	Roadway drainage repair	0.01	0.02		\$937,029	
Virginia	Assateach Island National Seashore	PRA-ASIS 11(3)	Assateague Channel Bridge	Seal & repair bridge deck	0.17	0.33	1	\$547,086	Y



**Appendix B Construction Projects Completed**

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Park Roads and Parkways (PRP) — continued									
Virginia	Spout Run Parkway/George Washington Memorial Parkway	PRA-GWMP 4(1),5(1)	Bridge on Spout Run Parkway and rock slope on GWMP	Repair of bridge foundation and slope work	N/A		1.00	\$635,925	
Virginia	Colonial National Historical Park	PRA-COLO 027T	5 span pedestrian bridge	Replace bridge	0.05	0.05	1	\$709,130	
Virginia	George Washington Memorial Parkway	PRA-GWMP 1A104	George Washington Memorial Parkway	Stabilize crib wall	N/A			\$884,728	
Virginia	Colonial Parkway	PRA-COLO 1D41-LC	Colonial Parkway, north of Rte 199	Drainage, embankment and pavement repairs	0.02	0.02		\$1,249,355	
Virginia	Colonial National Historical Park	PRA-COLO 1B35,1A19, 1D43, 1E14	King's Creek Br, Indian Field Creek Br, Rte17 Parkway Bridge, College Creek Br, Mill Creek Bridge and Isthmus Bridge	Paint bridges	0.20	0.40	7	\$2,387,724	Y
Wyoming	Yellowstone National Park	WY PRA YELL 10(15)	Madison to Norris, Segment B	Grading, base, drainage, paving, bridge and structures	9.98	19.96	2	\$29,620,172	Y
Public Lands Highway (Forest Highway (FH) & Public Lands Highway Discretionary (PLHD))									
Alaska	Tongass National Forest	AK PFH 44(7)	USFS 3030 Road Cleanup	Road Clean Up	4.35	4.35		\$952,871	
Alaska	Tongass National Forest	AK PFH 44(8)	USFS 3030	Excavation, Grading, Drainage	0.94	0.94		\$2,228,624	Y
Alaska	Tongass National Forest	AK PFH 44(9)	USFS 3030	Excavation, Drainage, Grading, Paving	19.57	19.57		\$3,460,495	Y
California	Trinity National Forest	CA PFH 149-1(2a)	Mad River Road, Slide Repair	Landslide repair	0.30	0.60		\$2,333,425	
California	Eldorado National Forest	CA PFH 137-1(4)	Wentworth Springs Road	Cold recycling, asphalt surfacing, paved ditches, asphalt curb, aggregate base, guardrail and drainage	10.76	21.52		\$3,910,074	Y
California	Inyo National Forest	CA PFH 138-1(1)	Mammoth Scenic Loop	Road recondition, grading, drainage and surfacing	11.69	23.38		\$4,738,488	Y

## Appendix B Construction Projects Completed

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Public Lands Highway (Forest Highway (FH) & Public Lands Highway Discretionary (PLHD)) — continued									
California	Tahoe National Forest	CA PFH 123-1(1)	Washington Road	Road reconstruction, grading, drainage, and reconditioning with Continuous Cold Recycled Asphalt, HACP	10.58	21.16		\$4,762,253	Y
California	Trinity National Forest	CA PFH 149-1(2)	Mad River Road	Grading, paving, structural fills and drainage	13.66	27.32		\$12,016,936	
California	Trinity National Forest	CA PFH 114-1(1)	Hyampom Road	Grading, drainage and asphalt surfacing	7.63	15.26		\$18,771,079	
Florida	Big Cypress National Preserve	PLH-BICY 104(1)	US 41 and Sea Grape Drive	Construct comfort station, visitor center, and parking area	0.30	0.30		\$1,715,596	
Idaho	Payette National Forest	ID PFH 60(4)	Little Salmon River Bridge	Grading, Drainage, Base, Paving, Retaining Walls, Bridge	0.41	0.82	1	\$4,404,770	
Idaho	Payette National Forest	ID PFH 9(5)	Enaville-Thompson Pass	Sub excavation, base and paving	12.90	25.80		\$5,073,442	
Idaho	Clearwater National Forest	ID PFH CDP 67(2)	Grangemont Road	Cement recycled asphalt base, stabilization, pavement	18.40	18.40		\$5,464,429	
Mississippi	Tombigbee National Forest	MS PFH 030-1(002)	Highway 30	Reconstruction & widening	0.77	1.50		\$570,026	Y
Montana	Beaverhead County	MT PFH 2009(2)B	Beaverhead County	Pavement Preservation	44.4	88.80		\$2,356,356	
Montana	Granite County	MT PFH 2009(2)C	Granite County	Pavement Preservation	16.3	32.60		\$664,920	
Montana	Cascade County	MT PFH 2009(2)E	Cascade County	Pavement Preservation	2	4.00		\$197,272	
Montana	Mineral County	MT PFH 2009(2)D	Mineral County	Pavement Preservation	1.8	3.60		\$376,411	
Montana	Flathead County	MT PFH 2009(2)A	Flathead County	Pavement Preservation	14.3	28.60		\$646,390	
Montana	Bitterroot National Forest	MT PFH 78(1)	East Fork Bitterroot Road	Sub excavation, drainage, base, grading, paving	14.65	29.30		\$3,600,502	Y
Nevada	Humboldt-Toiyabe National Forest	NV PFH 2(1)	Mount Rose Highway	Road reconstruction, widening in Humboldt-Toiyabe National Forest	0.86	1.72		\$1,166,865	Y
New Mexico	Inyo National Forest	NM PFH 12-1(7)	Cuba — La Cueva	Grading, drainage, aggregate base, and asphalt pavement	2.40	4.80		\$5,595,461	

*Appendix B Construction Projects Completed*

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Public Lands Highway (Forest Highway (FH) & Public Lands Highway Discretionary (PLHD)) — continued									
North Carolina	Pisgah National Forest	NC PFH 100-1(2)	North Carolina Route 1129	Bridge replacement	0.17	0.34	1	\$3,277,180	
Utah	Fishlake National Forest	UT PFH 39-1(3)	Sevenmile Gooseberry Road, Fishlake National Forest	Stabilize base course and superpave pavement	10.30	20.60		\$4,533,008	Y
Utah	Box Elder County	UT PLH 523-1(1)	Bear River Access Road(Bear River Migratory Refuge)	Grading, drainage, Superpave Asphalt Concrete Pavement	7.23	14.46		\$5,991,990	
Washington	Olympic National Forest	WA PFH 5(1)	Quinault South Shore Road Pedestrian Enhancement	Asphalt sidewalk and parking areas	0.25	0.25		\$102,310	
Washington	Olympic National Forest	WA PFH 208(2)	Camp Grisdale Road	Grading, base, asphalt, concrete, paving, draining	5.8	11.60		\$8,482,981	Y
West Virginia	Monongahela National Forest	WV PFH 097-2(001)	Smoke Hole Road	Rehab & resurfacing of Smoke Hole Road & one parking area	0.8	1.60		\$354,776	Y
Wyoming	Medicine Bow National Forest & Carbon County	WY PFH 26-1(1)	Sage Creek Road	Precast concrete box culverts, grading, drainage and wetland mitigation	0.90	1.80		\$887,641	Y
Refuge Roads (RRP)									
California	Modoc National Wildlife Refuge	CA RRP-MODO 100(1)	Wildlife Tour Loop Road	Road rehabilitation, restoration and resurfacing	4.14	8.28		\$433,471	
Georgia	Okefenokee National Wildlife Refuge	RRP-OKF 10(3)	Asphalt overlay Swampt Island Drive and 4 PA's, Recon Suwannee River Sill Road	Asphalt overlay of Swampt Island Drive and 4 PA's, Recon Suwannee River Sill Road	6.14	11.60		\$1,479,710	
Kentucky	Reelfoot National Wildlife Refuge	RRP-REL 10(2)	Reelfoot National Wildlife Refuge	Roadway resurfacing, parking lot paving & other work	0.94	2.00		\$563,502	
Nevada	Ruby Lake National Wildlife Refuge	NV RRP-RULA 107(1)	CCC Dike Road	Aggregate surfacing	1.80	3.60		\$171,235	
North Carolina	Mattamuskeet National Wildlife Refuge	RRP-MTK 10(1)	Lake Landing Road and Wildlife Drive	Rehab and bridge replacements	0.51	0.94	2	\$880,753	Y

*Appendix B Construction Projects Completed*

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Refuge Roads (RRP) — continued									
North Carolina	Pee Dee National Wildlife Refuge	RRP-PED 10(1)	Wildlife Dr, Sullivan Pond Road, Ross Road, Sullivan Pond Road and Handicapped Trail parking	Rehab Wildlife Drive, & other roads and parking areas	3.45	4.50		\$1,199,000	Y
North Dakota	J. Clark Salyer National Wildlife Refuge	ND RRP-CLSA 12(1)	Auto Tour Route	Bridge replacement	0.68	1.36	1	\$435,790	Y
North Dakota	J. Clark Salyer National Wildlife Refuge	ND RRP-CLSA 12(2)	Auto Tour Route	Bridge construction, bridge relocation, low water crossing construction	1.32	2.64	1	\$2,406,035	Y
Oklahoma	Wichita Mountains National Wildlife Refuge	OK RRP-WIMO 10(1) & 11(1)	Wichita Mountains National Wildlife Refuge	Grading, drainage, bridge and surfacing	5.42	10.84	1	\$1,954,756	
Tennessee	Tennessee National Wildlife Refuge	RRP-TNS 10(1)	Refuge Lane and Parking Area	Rehabilitation and resurface Refuge Lane and rehab various Refuge roads	5.19	13.64		\$3,431,046	
Tennessee	Cross Creeks National Wildlife Refuge	RRP-CRK 10(1)	Wildlife Road and Visitor Center Roads	Rehab Wildlife Road & Visitor Center Access Loop & other roads	3.09	5.86		\$778,531	Y
Other Title 23									
Alaska	Kobuk	AK DEN 2007(1)	Denali Commission Projects — Kobuk	Bridge Replacement	0.01	0.25	1	\$142,270	
Arizona	Cibola National Wildlife Refuge	AZ BOR-CIBR 900(1)	Cibola Bridge Deck Replacement	Bridge Deck Replacement, Guardrail, Minor Paving, Electrical/Lighting	0.30	0.60	1	\$3,684,884	Y
Arizona	Coronado National Forest	AZ ERFO 100(1)	Sabino Canyon ERFO Improvements	Wall repair, grading and drainage	0.14	0.28		\$1,294,384	
Arizona	Arizona & Nevada DOT	AZ-NV HPP 93(3)	Hoover Dam Bypass, Colorado River Bridge	Concrete arch bridge	2.00	4.00	1	\$114,516,870	
Arizona	Arizona & Nevada DOT	AZ-NV HPP 93(5)	Hoover Dam Bypass, Final Roadway Improvements	Grading, Drainage, Aggregate Base, Asphalt Surfacing, Barrier, Signing, Marking, and Lighting	17.60	35.20		\$9,527,350	
California	Klamath National Forest	CA ERFO 102(1)	Sawyers Bar Road	Grading, paving, drainage and MSE walls	1.39	2.78		\$1,246,475	

**Appendix B Construction Projects Completed**

Construction Projects Completed									
State	Name	Project #	Location	Type of Work	Project Length (miles)	Project Length (lane miles)	# of Bridges	Amount \$Mil	Recovery Act Funds
Other Title 23 — continued									
California	Six Rivers and Klamath National Forests	CA ERFO 13(1)	Six Rivers, Orleans	Grading, paving, aggregate base course, drainage, reinforced fill, rock embankment and MSE wall	4.62	9.24		\$2,334,685	
Colorado	San Juan National Forest	CO ERFO 667(1)	East Fork Road Slide Repair	Sub-excavation, road Reconstruction, horizontal drains, interceptor drain system	0.30	0.60		\$1,398,451	Y
Georgia	Chattahoochee-Oconee National Forest	GA ERFO/FS 64(1)	Three Forks Road	FS 64 - Three Forks Road slide repair	0.15	0.15		\$254,243	
Illinois	Shawnee National Forest	ERFO-IL-FSR 220(1)	McCraven Road	Recondition 0.9 miles of McCraven Road; reconstruct 5 slopes	0.82	2.00		\$1,027,300	
Mississippi	Homochitto National Forest	FS/STP OKLA 10(1)	Okhissa Lake	New road construction	7.33	14.66		\$6,374,847	
Montana	Judith Basin	MT OMAD 18(43)	Arrow Creek Bridge	Bridge replacement, embankment	0.25	0.25	1	\$905,806	
Montana	Fergus Wheatland	MT OMAD 18(45)	Minuteman Missile Base Roads	aggregate surfacing	42.00	84.00		\$3,277,179	
Oregon	Siskiyou National Forest	OR EMK 2005(2)	Agness Road	Bridge Rehabilitation	1.00	2.00	1	\$1,338,688	
Puerto Rico	Vieques National Wildlife Refuge	ERFO-VEQ 10(2)	Routes 11, 12, 104, 103, 102 and 109	Repair of existing aggregate surfaced roads	11.79	22.60		\$5,683,327	
Puerto Rico	Cabo Rojo National Wildlife Refuge	ERFO/CAR 10(1),100(1)	Route 100	Reconstructing damaged sections of road; replace culvert	0.39	0.39		\$228,220	
Tennessee	Catoosa Wildlife Management Area	BR A151(1),A153(1)	Potter Ford Road Bridge and Otter Creek Road Bridge	Replace 2 bridges	0.25	0.49	2	\$897,966	
Virgin Islands	Christiansted Bypass	VI NH-66(008) C1	Christiansted Bypass	New construction	1.95	3.90		\$7,056,341	
Washington	Gifford Pinchot National Forest	WA FS ERFO 071-2209	Jody Mullins Bridge Removal	Bridge Removal and Roadway excavation	0.25	0.25		\$348,705	



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