

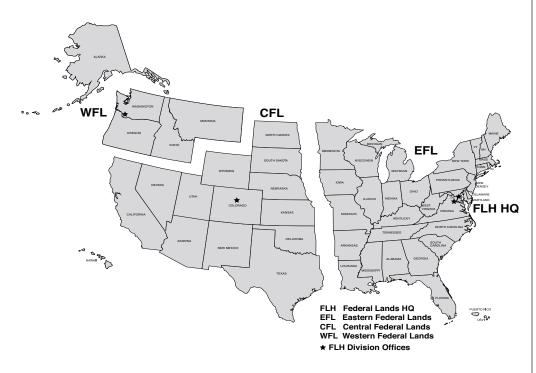
# The Federal Lands Highway Program

# *2010*

# The Year in Review

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# **Federal Lands Highway Division Offices**



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U.S. Depo

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

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Note: Additional information can be made available upon request.

Cover photo: Mike O'Callaghan — Pat Tillman Memorial Bridge, Hoover Dam Bypass Project, Arizona & Nevada

#### From the desk of the Associate Administrator

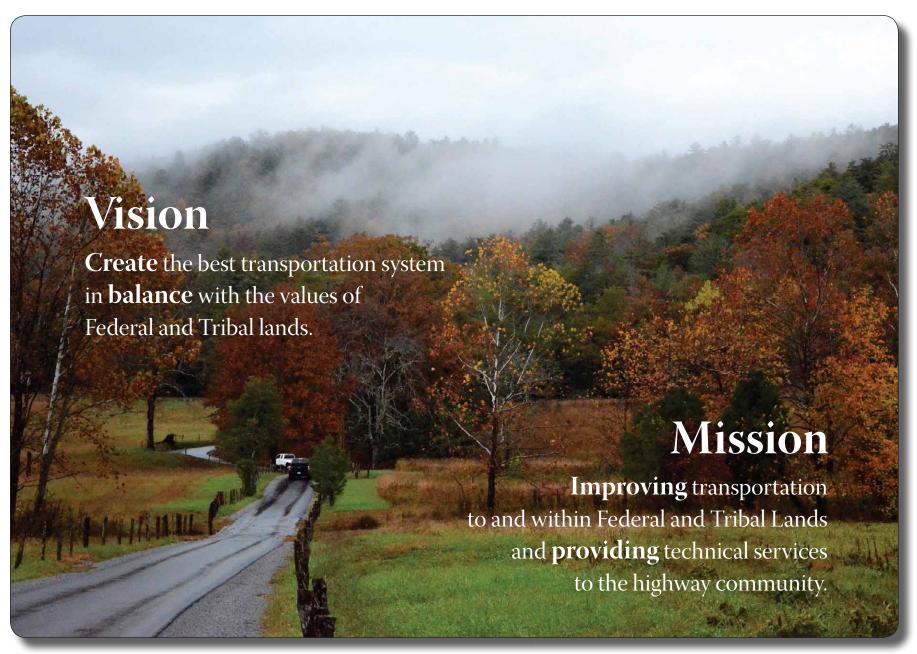
The Federal Lands Highway organization, as a critical part of FHWA, had a fantastic year of accomplishment for our Nation. Through individual and team efforts, we delivered the most significant program in our history, with the Recovery Act effort as the highlight. Administrator Mendez continues to remind us of the importance of creating jobs. We delivered the largest program in our history in partnership with tribal governments, providing critically needed infrastructure improvements. We delivered non-traditional projects, and projects for existing and new partners. We are supporting our military efforts and those soldiers who have served and sacrificed for our country with honor. And, we delivered a world-class bridge at the Hoover Dam that inspires all of us, and our Nation, to achieve greatness in all we do, for the next generation.

When we developed our 5-year Business Plan, one of our most significant goals was to expand our partner base through successful delivery and superior skills. The success all of you have helped us achieve in this last year will help us achieve that important goal. Federal Lands has been throughout its history, and will continue to be, a partner of choice. We continue to receive accolades from across our industry, and our success will lead us to new opportunities — to our future.

On behalf of the Leadership Team congratulations to everyone, and thank you for contributing to our continued success.

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

The Federal Lands Highway Leadership Team left to right: Melisa Ridenour, Eastern Federal Lands Division Engineer; Clara Conner, Western Federal Lands Division Engineer; John Baxter, Office of Federal Lands Highway Associate Administrator, and Ricardo Suarez, Central Federal Lands Division Engineer



Cades Cove Loop Road, Great Smoky Mountains National Park, Tennessee

#### 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 using low-cost transportation facilities, FLH is at the forefront of consistently delivering distinct, sensitive and sound engineering projects.

Since 1914, we have assisted the National Park Service (NPS), the U.S. Forest Service (USFS) and other Federal Land Management Agencies (FLMAs) in the design and construction of aesthetically pleasing and environmentally sensitive highway and bridge construction. FLH worked with these agencies on the original development, 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.

We stand by our vision to create the best transportation system in balance with the values of Federal and Tribal lands and have succeeded this year in fulfilling our organizational mission by providing quality technical services to the highway community.

The FLH organization consists of a Headquarters Office in Washington, DC and three field Division Offices located in Sterling, Virginia; Lakewood, Colorado; and Vancouver, Washington.

The Headquarters' staff is responsible for program development and administration, policy and program review for FLH program funds, and programs administered on behalf of FHWA on Federal and Tribal land nationwide. The three field Divisions; Western Federal Lands (WFL); Central Federal Lands (CFL); and Eastern Federal Lands (EFL) are responsible for program development; project management; transportation planning; environmental compliance; preparation of plans, specifications and estimates; contract administration; construction supervision and inspection. Our technical expertise includes: highway and bridge design; survey; mapping and right-of-way (ROW); hydraulics; geotechnical; traffic; safety; intelligent transportation systems; design visualization; materials; consultant and

construction acquisition; road and bridge inventory and inspection; and asset management. Our design and construction projects range from simple rural resurfacing to highly complex, high volume, urban arterial parkways.

FLH provides context sensitive designs and solutions, across the 50 States, the District of Columbia, Puerto Rico, U.S. Virgin Islands, and Pacific Island Territories.

The Federal Government, through various FLMAs: the NPS; USFS; U.S. Fish and Wildlife Service (USFWS); Bureau of Indian Affairs (BIA) and Tribal Governments; Bureau of Land Management (BLM); Military Surface Deployment and Distribution Command (SDDC); U.S. Army Corps of Engineers (USACE); Bureau of Reclamation (BOR); and the Tennessee Valley Authority, 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. The Federal Lands Division Offices work very closely with these partners to deliver the program, providing access to rural communities and our national treasures.



Cave Loop Road, Pavement Preservation, Lava Beds National Monument, Tulelake, California

# **Highlights**

#### **Executive Summary**

The year 2010 has been incredible in terms of this Nation's history. America has struggled to break out of an economic recession and funding for future transportation improvements remains uncertain. The Department of Transportation and in particular the FHWAs goals center on improving the economy, rebuilding the infrastructure, generating new jobs, and ensuring that public funds are well spent. Legislation and initiatives, in particular the American Recovery and Reinvestment Act of 2009 (Recovery Act) and Every Day Counts (EDC) have taken center stage and are encouraging us to consider new innovations. In light of this FLH has aligned strategies to focus on the four FHWA goals of *National Leadership*; *Program Delivery*; *System Performance*; and *Corporate Capacity*.

In FY 2010 FLH delivered its most significant program ever in terms of program, projects and specific accomplishments. We have highlighted these impressive accomplishments as follows:

**Recovery Act** — The Recovery Act, spanning 2009 to 2010 added a significant workload to the already large FLH Program. Virtually all Recovery Act funding (99.5% or \$550 million) was authorized on 621 projects nationwide. More than 53% of these obligated funds were expended to get contractors working and jobs underway! FLH also assisted our various partners in delivering Recovery Act projects authorized under their own funding programs.

**Program Size** — With a boost from the Recovery Act, FLH achieved its largest program ever of awarded construction contracts delivered to our partner agencies. Together, the FLH Divisions awarded 148 contracts, totaling \$529 million, distributed among the partner agencies, States, national initiatives and intermodal partnerships. These totals are considerable, and reflect the collaborative efforts put forth by all parties to complete a banner year. These projects, awarded in FY 2010, will result in the improvement of 1,300 lane miles of road and 56 new or rehabilitated bridges on federal and tribal land nationwide.

FLH had authority to spend over \$1.6 billion (total of FLHP, other Title 23, and non Title 23, except for Recovery Act authority) on transportation improvements among Federal Lands Highway Program (FLHP) funds, other Title 23 and non-Title 23 funds. Of the more than \$1.0 billion authorized in FLHP funds, 44.5% were for the Indian Reservation Roads (IRR) program; 22.6% were for the Park Roads and Parkways Program; 15.7% were for the Forest Highway (FH) Program; 14.6% were for the Public Lands Highway Discretionary Program; and 2.5% were for the Refuge Roads Program. Our total funding supported 482 active design projects worth \$2.1 billion and 305 active construction projects worth \$1.6 billion.

An extraordinary program requires extraordinary effort. FLH devoted 946.8 work years of effort to deliver its program. This number reflects 121.7

administratively-funded work years, 575.3 project-funded work years, and 249.8 work years outsourced. Approximately 36% of FLH work effort was outsourced.

**Projects:** Some of our most significant projects delivered this year exemplify our FHWA goals. In fact these projects are not only nationally recognized for their significance, but also because of the FLH commitment to strong project delivery and management, our partnerships, and technical innovation:

Mike O'Callaghan — Pat Tillman Memorial Bridge and the Hoover Dam Bypass: The \$240 million Hoover Dam Bypass Project (which includes 8 separate bridges, 5 miles of roadway, and the centerpiece (Mike O'Callaghan — Pat Tillman Memorial Bridge)) was completed in FY 2010. Sitting 900 feet above the Colorado River adjacent to the Hoover Dam, it is the highest and longest arched concrete bridge in the Western Hemisphere. The bridge also has the tallest concrete columns of its kind. Construction was substantially complete in September 2010, and the bridge was dedicated on October 14, 2010. The project was completed on original budget without disputes or claims. This world-class bridge is a testament to FLH technical expertise and project management!

Heartland Corridor Clearance Project: On September 9, 2010, the first double-stacked freight train passed through the Heartland Corridor. Construction started on this \$200 million "Project of National and Regional Significance" in October 2007 and was completed in September 2010. Work included increasing vertical clearances in 28 tunnels and removing 24 overhead obstructions in Virginia, West Virginia, Kentucky, and Ohio, enabling double-stacked international maritime and domestic containers to be transported by rail between the Port of Virginia and Columbus, Ohio (1,200 miles). This project benefits the public by generating economic development, removing trucks from congested highways, and reducing fuel consumption and greenhouse gas emissions!

Prince of Wales Island: The Organized Village of Kasaan in cooperation with the Alaska Department of Transportation State Scenic Byways Program and other stakeholders successfully nominated the Prince of Wales Island Road System (260 miles) and received designation as a State Scenic Byway in May 2010. The FH Program began improving roads on Prince of Wales Island around 1980. Since that time approximately \$139 million in FH funding has been spent for improvements on 88 miles of roads on the island. Routes that have been partly or completely reconstructed by the FH program include: Big Salt Road; Control Lake to Thorne Bay Road; Sandy Beach Road, North Prince of Wales Road; and Coffman Cove Road. This project demonstrates FLHs long-term commitment to improving economic development, and unwavering support to our partners!

Our Program is not just about our projects, it is also about our business delivery, training and developing our staff, and who we are as a public agency.

# **Highlights**

Every Day Counts (EDC) — For several years FLH has been working to improve and accelerate project delivery and green initiatives. EDC provided that extra emphasis. FLH promoted proven safety countermeasures by incorporating the "Safety Edge" paving technique on projects in design and construction. FLH is updating its Standard Specifications and evaluating projects nationwide to implement warm-mix asphalt technology. Geosynthetic Reinforced Soil (GRS) technology is continuing to be incorporated on more and more projects for both bridges and retaining walls. FLH has continued its use of Design-Build contracting by incorporating this method into 5 major projects this year.

Of particular note, our Western Federal Lands Highway Division (WFL) was the first FHWA organizational unit to receive the "Going Greener Award". These efforts have evolved over the past decade as WFL ensured that environmental considerations were taken into account as part of any improvements to operations within the buildings. Successes include officewide recycling and composting programs, installation of waterless urinals, energy efficient electrical and HVAC equipment and utilizing recycled paint. Results are tracked and show substantial progress, including decreases in utility costs and landfill waste and increases in recycled supplies.

Organizational Excellence — WFL received the Organizational Excellence Award in recognition of the 20 years that WFL has maintained a consistent vision and utilized business focused strategic planning processes to realize that vision. Key metrics are tracked and combined with other indicators of operational effectiveness to achieve continuous improvement. Communications between leadership and staff are accomplished through various methods to ensure alignment. The results are reflected in program and project delivery improvements, cost control, partner satisfaction, technical innovation, and workforce development.

**Financial Integrity** — The Eastern Federal Lands Highway Division (EFL) was one of three FHWA divisions independently audited in FY 2010 by the firm, Clifton-Gunderson, in coordination with the FHWA Office of the Chief Financial Officer. The emphasis of the audit was on financial operations and business processes. After the audit, the firm advised the Chief Financial Officer they were pleased with the progress on closing inactive obligations and reducing inactive obligation balances. The auditors were impressed with the Quality Business System (QBS), a system that is ISO 9001 compliant and defines the core processes: Stewardship & Oversight; developing the program; designing projects; and constructing projects. EFL illustrated how the risk assessment process, including the Financial Integrity Review and Evaluation (FIRE) risk assessment, is integrated into daily business. Other areas of interest included: the bridge inspection program; our procurement process; the point of obligation policy regarding commitment of funds; construction closeout process; project management system; and the project reconciliation process.

ASCE Peer Review — FLH participated in a Peer Review conducted by the American Society of Civil Engineers (ASCE). This review assessed our corporate capacity as an organization. The ASCE Peer Review Team provided recommendations on a variety of subjects, but also recognized some of FLH's exceptionally strong practices related to project management that stand out as an example to other engineering organizations.

**FHWA Discipline Training** — FLH fully supported the Federal-aid Divisions by sponsoring rotational assignments for various Federal-aid employees. FLH employees also participated with Federal-aid in Discipline Training and the Learning Highways Initiative throughout the country by offering and leading specific training sessions.

**Employee Satisfaction** — FLH is especially proud to report that employee satisfaction has reached its highest level ever at 70%. This level of satisfaction is extremely high and important because of the number of employees each Division is responsible for in comparison to many FHWA offices nationwide. This score reflects FLH's commitment to listen to and provide for its employees.

Procurement — The Recovery Act stretched our resources beyond normal limits and efforts by our acquisitions staff allowed for construction contracting at its highest level. FLH supported the goals of the Department of Transportation's Small and Disadvantaged Business Office whose mission is to promote successful partnerships which result in an inclusive and effective small business program. The FHWA target for small business is 38% of our total procurement. In FY 2010 FLH exceeded that target with a 45% accomplishment, as well as achieving specific performance targets for 3 of the 4 small business categories. Ensuring a productive and competitive contracting environment is important for both our economy and for business development.

The FHWA and FLH corporate goals and initiatives are the framework of our **2010 Annual Report** — **The Year in Review**, a summary of our accomplishments; an assessment of our organizational health and a testament to the importance we place in our role as stewards of public funds. As an engineering organization we are dedicated to providing engineering excellence, preserving our environment, and providing efficient and cost-effective services for our partners and the public.







Heartland Corridor

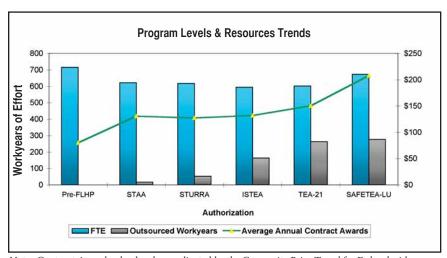


Prince of Wales Island

#### The Core Program

FLHs 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: Legacy for Users (SAFETEA-LU).

The chart below displays the trends of the annual program delivered by FLH (contract awards) compared to work years of effort required. The programs: Indian Reservation Roads, Park Roads and Parkways, Forest Highways and Refuge Roads have continually grown during the last authorizations. To maintain levels of service to the growing programs without comparable increases in our Federal workforce, the FLH has increased the use of consultant and service contracts. The mechanisms used for obtaining consultant and service contracts are those of the Federal Acquisition Regulations for fair competition, cost efficiency and best value to the government. Program levels are expressed as average annual contract award dollars, Full Time Equivalent (FTE), workyears and contracted (outsourced) workyears.



Note: Contract Award value has been adjusted by the Composite Price Trend for Federal-aid Highway projects, 1986 is base year.

Federal Lands 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.

Our business delivery in FY 2010 focused predominantly on our financial accountability and stewardship roles to effectively and efficiently manage taxpayer dollars.

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 Road and Bridge Programs; Park Roads and Parkways Program; Public Lands Highway Program; (Forest Highways; and Public Lands Highway Discretionary); and Refuge Roads Program.

The Indian Reservation Road (IRR) and Bridge 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 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 PLH Discretionary Program and the Forest Highway (FH) Program. 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.

These FLHP funds are summarized in the following table by funding category.

FY 2010 Title 23 FLHP Appropriations, Allocations & Obligations													
FLH Programs	Authorization/ Allocation Made Available	Program Changes	Prior Year Funds	Total Funds Available	Total Obligations	Amount Carried Over Into FY10	% Obligated						
Indian Reservation Roads (IRR)	\$447,750,000	\$(29,103,750)	\$54,620,577	\$473,266,827	\$435,670,564	\$37,596,263	92.1%						
Indian Reservation Roads Bridge (IRRBP)	\$14,000,000	\$(910,000)	\$827,137	\$13,917,137	\$13,902,133	\$15,004	99.9%						
Park Roads and Parkways (PRP)	\$223,278,000	\$0	\$7,204,472	\$230,482,472	\$228,071,171	\$2,411,302	99.0%						
Public Lands Highway (PLH)													
Forest Highway (FH)	\$197,010,000	\$(12,805,650)	\$33,248,120	\$217,437,470	\$158,562,931	\$58,874,539	72.9%						
*Public Lands Highway Discretionary (PLH-D)	\$101,490,000	\$(6,596,850)	\$128,369,376	\$223,262,526	\$137,314,701	\$85,947,824	61.5%						
Public Lands Highway — Transportation Planning (PLH-TP)	\$0	\$0	\$9,937,435	\$9,937,435	\$9,761,762	\$175,674	98.2%						
Refuge Roads (RRP)	\$28,855,000	\$(1,875,575)	\$4,967,489	\$31,946,914	\$26,348,268	\$5,598,647	82.5%						
Total	\$1,012,383,000	\$(51,291,825)	\$239,174,606	\$1,200,250,781	\$1,009,631,530	\$190,619,252	84.1%						

\*PLH-D funding and allocations require OST review and approval

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** — 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.

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.

#### The Recovery Act

The Recovery Act, signed into law by President Obama on February 17, 2009 was an unprecedented effort to jump-start our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges allowing our country to thrive in the 21st century. The Recovery Act is an extraordinary response to a crisis unlike any since the Great Depression, and includes measures to modernize our nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

The Recovery Act legislation included \$27 billion in highway funds for states and Federal agencies to provide critical repairs to our nation's crumbling roads and bridges. Congress authorized \$550 million directly for FLH projects.

The law required that all funds be obligated by September 30, 2010. It also required that priority be given to projects that can be completed within two years of enactment and projects that are in Economically Distressed Areas (EDAs). For the FLHP programs that are distributed by statutory formula, the law allowed the Secretary to redistribute funds within the program to ensure 100% obligation by September 30, 2010.

Upon enactment of the legislation in 2009, we worked with our partners to finalize the Recovery Act program of projects. The effort continued into 2010 and the program was finalized so that all funds could be obligated before September 30. The projects were added to the Statewide Transportation Improvement Program (STIP).

Our partners asked FLH to deliver 100% of the additional RR funds and about 90% of the PRP and FH funds. The BIA and Tribes took the lead delivering projects with the additional IRR funds. At the end of FY 2010, the status of the funds for each program was:

Recovery Act Program directly authorized to FLH											
Program Authorized Obligated Expended # of Proj											
IRR	\$310 M	\$309,720,570	\$159,549,581	518							
PRP	\$170 M	\$169,999,081	\$92,708,009	38							
FH	\$ 60 M	\$59,999,959	\$34,744,798	54							
RR	\$ 10 M	10,000,000	\$5,609,311	11							
Total	\$550 M	\$549,719,610	\$292,611,699	621							

Virtually all of our Recovery Act funding (99.95%) was obligated by the September 30 deadline. Approximately \$25.4 million of the IRR funds were redistributed among Tribes, which ensured substantial obligation of the largest Federal Lands program.

Just as important as getting the funds obligated, we expended (paid out to contractors) 53% of the funds. This number is somewhat inflated, since funds transferred to Tribes are expended almost immediately after the agreement is signed. Not including these tribal agreements, our expenditure rate was closer to 40%. So not only did we get contracts awarded, we got them well underway — the driving force for creating jobs.

We also delivered Recovery Act projects for funding directly authorized to our partners. The Recovery Act funds administered by our partners are referred to as "Title 16 funds." The funds were transferred under streamlined procedures using interagency agreements and reimbursable authority. We awarded more than \$110 million in construction contracts for the NPS, BLM, FWS, BOR, and USFS. The majority of the Title 16 Recovery Act projects were BLM projects and NPS pavement preservation projects.

Recovery Act funds require an array of reporting requirements to assure Congress and the public that the funds will be managed well and that all data will be transparent and available to all. These stringent reporting requirements affect Federal agencies, State DOTs, Tribes, and contractors.

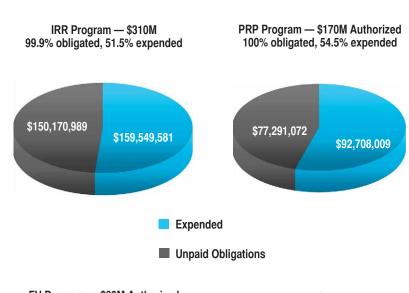
Additional FTE and GOE funds were distributed within FHWA to ensure the funds are spent according to all applicable laws, regulations, and policies. FLH received two FTE that were used to fill IRR program positions, in Vancouver, Washington and in Headquarters, where the overall reporting effort was rolled up and compiled.

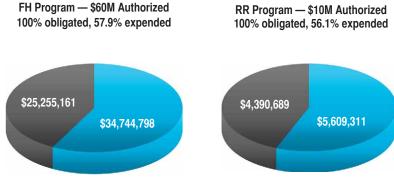
FY 2011 will bring additional challenges, as we work with our partners to rebuild our long-range programs that were largely depleted with our delivery of the Recovery Act program. The Recovery Act has proven to our stakeholders that FLH can deliver a larger program, as our number of active construction jobs will peak in the summer of 2011. FLH is up to the challenge.



Grand Teton National Park, Wyoming

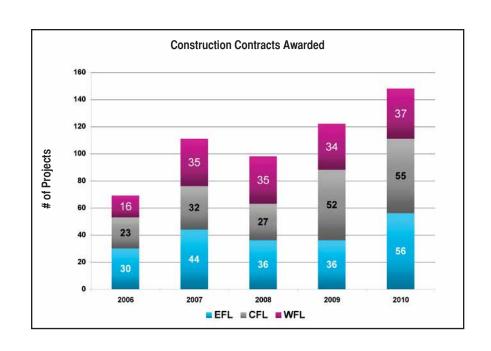
Federal Lands Recovery Act Project Status as of September 30, 2010

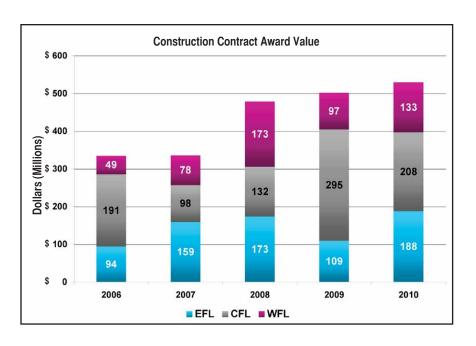


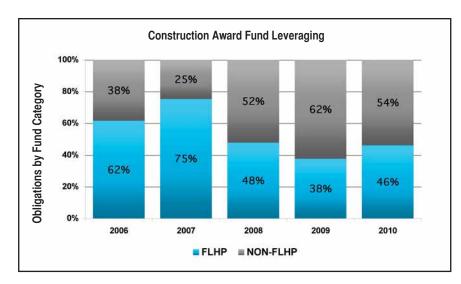


# **Program Size**

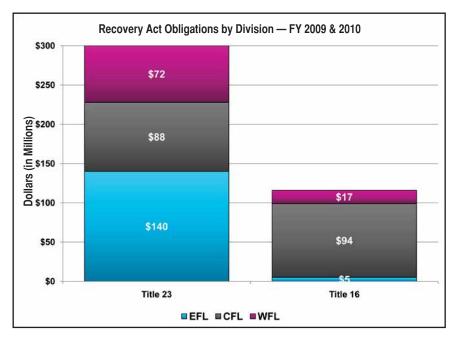
FLH achieved an amazingly successful program of awarded construction contracts delivered to our partner agencies in FY 2010. Our contract award totals comprised the largest numbers ever acheived by the organization and included both our core program as well as Recovery Act projects. Together, the Divisions awarded 148 contracts totaling \$529 million, distributed among the partner agencies, States, national initiatives and intermodal partnerships. These totals are considerable, and reflect the collaborative efforts put forth by all parties to complete a banner year.







Project funding derived from sources other than FLHP has dramatically increased since 2007. In 2008, FLH began to focus attention on leveraging our FLHP funds to extend our core program funds. This year 54%, or over \$284 million, of our construction related obligations were non-FLHP funds as compared to only 25%, \$108 million, in FY 2007.



The Recovery Act provided another opportunity to showcase FLH's delivery capabilities. Over the past 2 years, FLH continued to deliver FLHP (Title 23) and "Agency" (Title 16) Recovery Act projects by sharing FLH resources and acquiring consultant design services. By using innovative contracting (Design Build), FLH successfully awarded 41 FLHP Recovery Act projects in FY 2009 and 64 projects in FY 2010. In addition, the Divisions played a key role in assisting several partner agencies receive Recovery Act funding to deliver their projects.

				FLH Red	covery Act (	(RA) Projec	t Delivery	Summary –	- FY 2009 8	<u>k</u> 2010							
		A Projects FY2009			<b>Obligations Expenditures</b>				Lane Miles of Road Improved				Sq Ft of Bridge Improvement		# of Bridges Improved		
Funding Source	# RA Projects Awarded	RA Award Amount \$ M	# RA Projects Awarded	RA Award Amount \$ M	RA Allocation	*Title 23 RA Funds	*Title 16 RA Funds	*Title 23 RA Funds	*Title 16 RA Funds	3R	4R	New	Gravel	Rehab	New	Rehab	New
RA PRP (D170)													•				
Total RA PRP	11	\$72,130,894	16	\$75,026,069	\$150,157,644	\$181,351,659	\$291,824	\$117,187,399	\$0	135.1	89.9	0.0	0.0	39,835	37,456	4	3
RA FH (D180)																	
Total RA FH	8	\$28,327,819	13	\$29,467,763	\$59,131,383	\$52,697,810	\$0	\$36,334,087	\$0	34	48	4.2	8.6	0	6,332	0	2
RA RR (D190)																	
Total RA RR	6	\$7,115,932	4	\$2,747,936	\$10,000,000	\$10,000,000	\$0	\$7,947,172	\$0	36	0	0	0.0	0	4,901	1	3
RA Highway In	frastruc	cture (D240)															
Total RA Hwy	0	\$0	3	\$27,960,459	\$51,231,739	\$51,319,759	\$0	\$26,679,821	\$0	0	0	5.3	0	0	2,500	0	2
RA Territorial I	Highway	y Program						•	•					•			
Total RA IRR	1	\$5,537,155	0	\$ 0	\$5,537,155	\$5,537,155	\$0	\$4,438,552	\$0	.7	0	0	0	0	0	0	0
RA Funds From	n Other	Agencies:															
RA NPS															,		
Total RA NPS	9	\$38,683,024	7	\$33,544,201	\$70,616,587	\$0	\$75,567,697	\$0	\$58,041,841	1,287.8	.2	0	0	1,453	2,352	1	1
RA FS																	
Total RA FS	3	\$19,159,082	6	\$15,947,290	\$3,428,000	\$0	\$18,662,714	\$0	\$5,261,447	22.1	10	0	0	0	47,800	0	9
RA BLM								,			•						
Total RA BLM	3	\$8,172,756	14	\$11,295,743	\$16,084,280	\$0	\$17,010,615	\$0	\$12,125,795	64.3	16.5	0	122.5	0	2,565	0	1
RA BOR					1	1		1	1	1	1		1		1		
Total RA BOR	0	\$0	1	\$3,592,518	\$4,425,000	\$0	\$4,360,957	\$0	\$456,639	.3	0	0	0	0	12,811	0	1
Grand Total	41	\$179,126,661	64	\$199,581,980	\$370,611,788	\$300,906,383	\$115,893,808	\$192,587,030	\$75,885,721	1,580	165	9.4	131.1	41,289	116,716	6	22

<sup>\*</sup> Recovery Act funds received and administered like Title 23 or Title 16 funds.

FY 2010 Program Delivery Summary — Total Program											
Measure	FY Totals	EFL	CFL	WFL							
Total Current /Active Project Design Amount (\$M)	\$2,065	\$496	\$935	\$634							
Total Advertised Contract Value (\$M)	\$697	\$278	\$246	\$173							
Designs Completed (#)	153	56	66	31							
Total Engineering Estimated Value (\$M)	\$666	\$276	\$217	\$173							
Preliminary Engineering Expenditures (\$M)	\$78	\$22	\$29	\$27							
Preliminary Engineering (%)	12%	8%	13%	16%							
Construction Projects Advertised (#)	150	58	55	37							
Total Current/Active Project Designs (#)	482	182	149	151							
Construction Contracts Awarded (#)	148	56	55	37							
Total Award Value (\$M) Actual Contract Amount	\$529	\$188	\$208	\$133							
Active Construction Contracts (#)	305	123	115	67							
Total Current/Active Contract Amount (\$M)	\$1,663	\$472	\$779	\$412							
Construction Contract Completed (#)	98	30	27	41							
Total Completed Contract Amount (\$M)	\$348	\$64	\$161	\$122							
Construction Contract Payments (\$M)	\$600	\$189	\$279	\$133							
Construction Engineering Expenditures (\$M)	\$54	\$12	\$28	\$14							
Annual Construction Engineering Administration (%)	9%	6%	10%	11%							

	FY 2010 Project Delivery Summary — Total Program													
	Active Desi	gn Projects	Construction Projects Completed in FY 2010											
Funding	Amounts Populate Program Delivery Sunding			mmary	nmary Lane Miles of Road Improved						et of Bridge rement	Number of Bridges Improved		
Source	# total for year	\$ M=EE	# total for year	\$ M=award amount plus mods	#	\$ M=Final amount	3R	4R	New	Gravel	Rehab	New	Rehab	New
Total PRP	192.0	\$891.8	129.0	\$706.4	28.0	\$82.6	46.9	28.8	0.8	0	22,377.0	27,132.5	3.0	3.0
Total FH	105.0	\$532.3	50.0	\$324.8	17.0	\$110.0	45.1	33.3	0	17.5	3,440.0	37,562.0	3.0	6.0
Total PLD	11.0	\$41.5	3.0	\$16.8	1.0	\$0.4	0.6	0	0	0	0	0	0	0
Total RR	40.0	\$42.1	25.0	\$36.3	13.0	\$12.2	8.4	0	0.6	52.3	0	3,318.0	1.0	2.0
Total IRR	7.0	\$25.9	0	\$0	0	\$0	0	0	0	0	0	0	0	0
Total ERFO	30.0	\$81.1	33.0	\$71.2	27.0	\$18.8	5.2	21.6	1.0	1.5	720.0	2,576.0	1.0	2.0
Total all Others	97.0	\$450.5	65.0	\$507.8	12.0	\$124.0	51.2	1.0	1.0	51.5	0	20,596.0	0	2.0
Grand Total	482	\$2,065.1	305	\$1,663.3	98	\$348.0	157.4	84.7	3.4	122.8	26,537	91,185	8.0	15.0

FLH goals and resources are focused on fulfilling both our Vision and Mission, but are also based on our strategic alignment with the four FHWA Goals: *National Leadership; Program Delivery; System Performance; and Corporate Capacity.* FLH has identified key initiatives and measures of success for each goal at the various levels of the organization (Headquarters and Division). In combination they serve to support the overall delivery of the FLH program and are carefully utilized to track results, to monitor our progress, and to identify ways in which to strengthen the overall effectiveness of the FLH Program. These initiatives include:

Improvement Initiatives (II): FLH concentrated on 6 specific improvement initiatives — Transportation & Climate Change, National Bridge Inventory System, Stewardship & Oversight, Indian Reservation Roads Program, National Pollutant Discharge Elimination System (NPDES) Compliance and IT Governance. These improvement initiatives increase the efficiency and effectiveness of our program and project delivery and have a positive impact on our everyday business and strategic goals.

**Overall Program Initiatives (OP):** FLH continues to concentrate on Partner Satisfaction, Funds Obligated, Funds-On-The-Ground, and Employee Satisfaction (See charts pgs. 25-26) as indicators of business efficiency and effectiveness.

**Program Effectiveness Initiatives (PE):** FLH must carefully monitor and measure initiatives in Innovation, Safety, Infrastructure, Environment, and Planning to improve upon the Nation's infrastructure.

#### Goal 1: National Leadership —

FHWA leads in developing and advocating solutions to national transportation needs. In FY 2010 FLH has identified 4 strategies and measures under the categories of Transportation and Climate Change, and Innovation.

**Transportation and Climate Change (II):** Work with our partners in addressing climate change associated with transportation in selected parks, forests, refuges and other public lands.

Results: In collaboration with the FLMAs the FLH is addressing climate change in the Long Range Transportation Plans (LRTPs) in selected parks, forests, refuges and other public lands. The FLH Planning Team coordinated with partners to develop updates to General Management Plans (NPS) and Comprehensive Conservation Plans (USFWS). The Team also utilized Management Systems data for analysis and prioritization of investments with respect to climate change. In FY 2010, there was increased emphasis to develop unit specific and national strategies to reduce greenhouse gas emissions. Some of these strategies included alternative transportation, congestion management, and multimodal transportation in parks and refuges at the unit and regional level.

**Innovation (PE):** Implementing innovative solutions to transportation challenges in key areas.

Results: For many years, FLH has been a proven leader in implementing innovative solutions to the many challenges transportation officials face in key areas. In FY 2010, we continued to seek opportunities to leverage the FLHP program within surrounding communities and States through development of LRTPs, and emphasized the need for State and Regional integrated plans. FLH also expanded its outreach to partners by establishing a multi-agency team tasked to identify and promote more sustainable practices in project delivery. We also worked closely with our partners and other FHWA units to advance Research and Technology (R&T) initiatives.

The following measures are indicators of our innovation strategy.

*Funding Measure:* Leverage our program by increasing the percent of annual awards comprised of non-FLHP funds.

Results: (See "Construction Award Fund Leveraging" chart, pg. 13) for analysis and trends. FLH project funding derived from sources other than FLHP, has been growing over the years. The amount of leveraged funds has doubled in the last 3 years and leveraged funds for this year's program accounted for 51.8% of the total program, at a dollar value of \$360 million, significantly higher than the FLH target of 35%.

Context Sensitive Solutions (CSS) Measure: Improve CSS Self-Assessment Score.

Results: FLH emphasized CSS training in FY 2010. CSS training courses were presented in the Divisions and CSS principles were emphasized in other related training sessions. Additionally, the FLH website was assessed for opportunities to strengthen the visibility of FLH's commitment to CSS. Proposed improvements have been showcased in a beta website that includes video clips, case studies and links to CSS-related projects that are delivered through the Technology Deployment Program (Greenroads, Roadside Revegetation Guide, and the Context Sensitive Road Surfacing Selection Guide). FLH's self assessment score for FY 2010 achieved the target of 4.4.

**Technology Measure:** Measures effectiveness of FLH Technology (TD) Program by increasing number of technologies deployed; ensuring that technology deployment products have wide-reaching applicability and results are publicized and shared among FHWA, FLMAs and State DOTs.

Results: FLH successfully competed with other FHWA program offices for FY 2010 R&T Strategic Initiatives funding. Two projects were selected in the areas of Tribal Safety (\$450 thousand) and Visualizing FLMA Systems Data (\$220 thousand). These projects will be advanced

in FY 2011. This year's result for our technology measure is 100%, exceeding our goal of 90%.

The FLH technology program is responsible for deploying, promoting, demonstrating, evaluating, and implementing new and improved technological advances. This program is carried out in 3 ways: technology deployment; technology transfer; and technical assistance.

FLH invested nearly \$1.45 million in this important mission area during FY 2010. The funding for technology development and deployment in FLH is allocated from the Coordinated Technology Implementation Program (CTIP). The CTIP is a cooperative technology deployment and sharing program between FLH and FLMAs to provide a forum for identifying, studying, documenting and transferring technology to the transportation community. In partnership with the FLMAs, the program is funded through contributions from the IRR, FH, and RR Programs. In FY 2010, this funding was allocated through a theme based method, which resulted in a more focused approach for making investments in the FLH technology program.

The FLH Technology Deployment team also distributes FLH technology-related publications and articles to the transportation community through Tribal Technical Assistance Program (TTAP) and Local Tribal Assistance Program (LTAP) centers and through FLH partners. FLH completed 9 technology deployment projects and published the following 8 technical reports: Hollow Bar Soil Nails Pullout Test Program; Hollow Bar Soil Nails Corrosion Mitigation Recommendations; Retaining Wall Inventory and Condition Assessment Program (WIP); SNAP (Soil Nail Wall Analysis Program); Culvert Assessment and Decision-Making Procedures Manual; CTIP News; Traffic Monitoring: A Guidebook; and Traffic Monitoring in Recreational Areas.

The FLH Technology Deployment Teams continue to provide technical assistance and outreach to FLMAs, State DOTs, and local transportation agencies. In FY 2010, members of the technology team served on Transportation Research Board panels, University Transportation Center advisory groups, and provided technical expertise to local TTAP and LTAP centers.

FLH is especially proud of these additional accomplishments that represent National Leadership:

**Best Practices:** Throughout FY 2010, CFL was identified as having numerous best practices through several internal and external reviews, as well as earning several awards/recognitions. Reviews conducted by the Recovery Act National Review Team, FLH's Financial Management Risk Review Team, FLH's Organizational Risk Review Team, and a Peer Review conducted by the American Society of Civil Engineers praised the strong Project Management matrix structure and its capabilities to deliver large complex projects; having well defined roles and responsibilities;

an International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) accredited laboratory (one of only 9 in the country); the contractor option to lease field laboratories, a construction modification process (noting pre-negotiation memorandum); a Career Development Program; and excellent Quality Control/Quality Assurance (QC/QA) process. Additionally, during FY 2010, CFL earned the 2010 Administrator's Excellence in Teamwork Award presented to the Hoover Dam Bypass Team.

CFL also received an Honorable Mention recognition in the "Rural Highway" category as part of the FHWA Excellence in Highway Design Award for the SR-200/Saddle Road (Hawaii) project, while the multidisciplinary "FH Program Transportation Planning Team" won the "Collaboration" category under FHWA's Transportation Planning Discipline Recognition Program for its advancement of systems-level long-range transportation planning for the FH Program.



Saddle Road, Hawaii

Long Range Transportation Planning: With WFL planning project management and the support of CFL and EFL planners, USFWS completed the first long range transportation plan at the regional level for the Department of Interior and is embarking on a national level plan. At the regional level, these plans describe the needs and priorities of the agency, how projects are selected, and identify potential partnering and funding resources available to support a viable, multi-state transportation system. At the national level, this plan will describe the conditions of the USFWS transportation system, what is needed to maintain or improve that system and provide policy level guidance.

Using a context sensitive approach, these planning documents recognize the importance of the visitor experience, natural and cultural resource protection, as well as system preservation, safety, mobility, and climate change to the FLMAs. Having completed the USDA, Oregon FH Long Range Coordination Plan, WFL has also embarked on facilitating a long range transportation plan development for the Armed Forces, DAR Program as well as ongoing efforts with the NPS and BLM in Alaska.

*Heartland Corridor Clearance Project:* On September 9, 2010 the EFL, Norfolk Southern Railroad, and the states of Virginia, West Virginia, Kentucky, and Ohio celebrated completion of this project when the first double-stacked freight train passed through the Heartland Corridor. Construction started on the \$200 million project of National and Regional Significance in October 2007 and was completed in September 2010. Work included increasing vertical clearances in 28 tunnels and removing 24 overhead obstructions by increasing tunnel clearances and modifying other overhead obstructions in western Virginia, West Virginia, Kentucky, and Ohio. The project has enabled double-stacked international maritime and domestic containers to be transported by rail between the Port of Virginia and Columbus, OH (1,200 miles). Through out the project, 5.7 miles of tunnel were modified using 30,000 tons of sprayed concrete, 80,000 tons of grout behind walls, and 110 miles of rock bolts. This project benefits the public by: generating economic development, taking trucks off congested highways, and reducing fuel consumption and greenhouse gas emissions.



Norfolk Southern double-stacked train passing through the Heartland Corridor, Virginia

#### Goal 2: System Performance —

The System Performance goal is defined as providing safe, reliable, effective, and sustainable mobility for all users on our Nation's highways. FLH has identified 7 strategies and measures under the categories of Compliance with the National Bridge Inspection Inventory System, Safety, and Infrastructure.

Compliance with the National Bridge Inventory System (NBIS) (II): FLH will coordinate with federal owners of public bridges to assess their inspection efforts and the quality and accuracy of data required for submission through FLH to the NBIS database.

**Bridge Inspection:** FLH continued to work with 19 federal owners of public bridges to assess their inspection efforts and the quality and accuracy of data required for submission. A number of inspection activities for FLMAs were completed:

*NPS:* evaluated the Trail Bridge System to define the scope of effort to provide inspection services for those bridges; and identified 7 NPS bridges that will require scour analyses.

FS Region: provided support for under bridge inspection for 7 bridges.

*BIA:* provided 3 load permit reviews at their request.

*Air Force:* evaluated load rating information for structures 10 feet and longer along missile transport routes in Montana, North Dakota, Nebraska, Colorado, and Wyoming.

Bridge Management: In working with the federal agencies, the Bridge Team was successful in forming stronger relationships with bridge coordinators to assist them with submitting bridge inspection data, and to better utilize FLHs bridge management services. This resulted in better coordination and also helped to advance the efforts of one Federal agency to submit data and achieve compliance with NBIS. These outreach efforts will continue in FY 2011. The Bridge Team also had an opportunity to provide technical assistance to NPS on their bridge management program. These efforts will greatly assist NPS in addressing the need for bridge rehabilitation and maintenance for long-term objectives.

**Bridge Design:** The Bridge Team completed the following: 1) assisted with the acquisition of design-build services for the construction of remaining bridges on the Foothills Parkway; 2) 24 projects including 2 Design-Build projects for which the Team assisted with the development of the RFQ and RFP; and 3) provided support for bridge-related issues on several major projects (Fairfax County Parkway and Fort Belvoir).

Safety (PE): Reduce injury and fatal crashes. The FLH Safety Team will 1) Implement FLH Safety Team recommendations; 2) Support the NPS rollout of the NPS Traffic Accident Report and the joint 5-year strategic plan that includes 6 key recommendations; 3) initiate the process of inputting 2005 and 2009 crash data into a NPS national database; 4) continue statewide Tribal summits; 5) hold 1-day national tribal safety summit in conjunction with the National Tribal Transportation Conference; and 6) conduct two roadside safety audits at problematic intersections accessing refuges.

Results: A meeting was convened for the NPS Northeast Region, including representatives from 10 parks with the most crashes to review crash analyses and schedule field reviews. In May, the Safety Team presented the National NPS Safety Report to FLH and NPS Leadership, which identified a set of recommendations for improving safety in parks. Implementation of the recommendations will occur in FY 2011. Working with the NPS, the Safety Team completed a project agreement to move forward with a Safety program. The agreement includes activities to: 1) correct crash data and allow for regional analysis for the National Capital Region; 2) develop crash analysis methodologies and tools; and 3) develop a Statement of Work to conduct a Road Safety Audit (RSA) at Mammoth Cave National Park. The agreement also calls for development of guidelines for other parks to follow when conducting similar independent RSAs.

The Safety Team also developed safety countermeasures, which included finalization of crash factors to estimate safety on several projects under design.

In support of FHWAs Every Day Counts Accelerating and Innovation Technology Deployment initiative, FLH promoted proven safety countermeasures by incorporating the use of Safety Edge paving techniques on several projects under design.

Other activities by the Safety Team included a RSA at Suitland Parkway (NPS) and Carolina Sandhills (NWR). In addition, a contract was initiated for RSAs at Colorado National Monument (NPS) and Cow Creek (BLM).

A National Tribal Safety Summit was held in Arizona, in November, in conjunction with the National Tribal Transportation Conference. At the state level a Tribal Safety Summit took place in Oklahoma in April. Two Tribal Safety Plans were completed.



Road Safety Audit team comparing crash data to field conditions, Navajo Nation

**Infrastructure (PE):** Maintain and improve condition of transportation infrastructure serving federal and tribal lands by 1) delivering the FLHP program, unobligated levels of Recovery Act funds, and partner Recovery Act funds as appropriate using its existing delivery structure; and 2) implementing Risk Plans for the Recovery Act.

Results: FLH's project delivery effort in FY 2010 resulted in the construction improvement of 1,300 lane miles of road, 150 lane miles more than our anticipated target of 1,150. FLH awarded contracts to construct and improve 56 bridges on federal and tribal lands nationwide, 19 more than originally targeted for the year.

Two programs/projects representing FLH's commitment to system performance are highlighted as follows:

Prince of Wales Island Project: The Organized Village of Kasaan in cooperation with the Alaska Department of Transportation State Scenic Byways Program and other stakeholders successfully nominated the Prince of Wales Island Road System (260 miles) and received designation as a State Scenic Byways on May 28, 2010. The FH Program began improving roads on Prince of Wales Island around 1978. Since that time approximately \$139 million in FH funding has been spent for improvements on 88 miles of roads on the island. Most improvements were upgrading the geometry, drainage, and surfacing of rough or primitive arterial island roads to a safe standard appropriate for passenger cars. All but a couple of the construction contracts have been developed and administered by the WFL. The FH funding amount above includes preliminary engineering and construction contract

administration costs. There are currently just over 300 miles of formally designated forest roads on the island. Routes that have been partly or completely reconstructed by the FH program include: Big Salt Road; Control Lake to Thorne Bay Road; Sandy Beach Road, North Prince of Wales Road; and Coffman Cove Road.





before & after: Prince of Wales Island, Alaska

Pavement Rehabilitation and Preservation Program: CFL had a banner year for improving, rehabilitating, and preserving roads by awarding and delivering 46 pavement rehabilitation and preservation projects which totaled over \$325 million. These projects improved and preserved over 900 miles of roadway, and included the placement of over 800,000 tons of asphalt mix and 10,800,000 square yards of surface treatments. The FY 2010 project delivery is unprecedented and was aided by the use of multiple sources of funding including the Recovery Act, ERFO program, and FLHP program. The nearest comparable delivery year for the Division was in 1995 when 470,000 tons of asphalt mix was placed. In FY 2010, not only did CFL exceed this tonnage by 70% but they also delivered a \$29 million preservation program.

**Pavement Management System:** Develop pavement preservation system for the partnering agencies' road system.

*Results*: Improved pavement condition indices for the Road Inventory Program (RIP) program were developed that will better support project programming for pavement preservation projects as well as pavement rehabilitation projects.

The Team finalized pavement management pilot efforts with the NPS Southeast and Midwest Regions; and the USFWS Regions 2 and 6. Methods and applications for using the Highway Pavement Management Application (HPMA) outputs as a tool for project programming and selection were presented as a part of the pilot efforts. The Team also completed a comprehensive pavement preservation program appraisal which involved

information gathering and interviews with over 30 FLH staff and 20 client-agency staff. A final report of the findings and recommendations was completed in September. The report will be a catalyst for future enhancements to FLH's pavement preservation efforts.



Conzelman Road, San Francisco, California

**RIP:** In FY 2010 RIP completed 100% of the Automated Road Analyzer (ARAN) data collection and 100% of the data analysis for the NPS Cycle 4 Parks; 98% of all Cycle 4 reports were completed and delivered. RIP also worked with the NPS (and their contractors) to test and upgrade their alignment tool and to complete a major alignment effort with Facility Management Systems Software (FMSS) using the NPS Alignment Portal Tool.

NPS RIP Cycle 5: RIP acquired a new data collection vehicle in FY 2009. At the beginning of FY 2010, RIP employees began training on the new vehicle and collected data on 2 large parks, 9 small parks, and 2 Long Term Pavement Preservation sites as part of the NPS Cycle 5 Pilot. Since that time, FLH has worked closely with the Data Analysis Contractor and HPMA to get a solid start on Cycle 5. There are many changes from Cycle 4. The new collection vehicle has several upgrades such as a laser rut measurement and laser line scan cameras, the data that is collected and processed differs between large and small parks using the newer geodatabase design for storing data; and working closely with HPMA to recommend (for approval by the NPS) a new indices formula. There are currently 307 parks in the NPS Cycle 5 Schedule. The NPS Cycle 5 status as of the end of FY 2010 was:

17% of Cycle 5 Route ID Web-Conference Meetings were completed; 11% of the Cycle 5 Manual Collection trips were completed; and 10% of the Cycle 5 Pathrunner Vehicle Collection trips were completed.



New RIP data collection vehicle, the "PathRunner"

**Condition Assessment:** Condition Assessment Reports track the condition of roads and bridges for the four major FLH programs: IRR, PRP, FH and RRP. A Pavement Condition Rating (PCR) is determined for the roads in each program (i.e., Good =100-85, Fair = 84-61 and Poor = 60-0). A weighted average PCR is also calculated for each program. Data collection for all partner agencies comes from either automated collection vehicles or a visual rating methodology using established collection procedures and practices.

Bridge condition data is collected by FLH for the PRP program, in addition, we obtain State and Federal Agency condition data submitted to the Federal Highway Office of Bridge Technology, for the bridges in the remaining FLH programs. Bridge conditions are reported with two types of deficiency: structurally deficient and functionally obsolete, which are added together to get the total deficiency. Structural deficiency is determined primarily by the National Bridge Inspection (NBI) structural condition codes that assess bridge deck, superstructures, substructures, culvert and retaining walls, structural condition and waterway adequacy. Functional obsolescence is determined primarily by functional aspects such as bridge geometry and

clearances. Any bridge classified as structurally deficient is excluded from the functionally obsolete category.

For the *IRR Program* the BIA/DOT Area offices and Indian tribal governments collect the data annually. Since there is some subjective interpretation of road conditions, there may be consistency issues among the area offices and tribes.

There are nationally accepted methods (assigning values of 0-5) used to indicate the road condition that corresponds to a range of conditions from "Poor" to "Good".

**Road Condition Assessments:** In FY 2010 the BIA 26,000 mile road network underwent selective road condition assessments performed by the Tribe or Contractor personnel. The additional condition data resulted in an Average PCR of 66, as compared to an Average PCR of 65 for the roads assessed in FY09. The percentage of roads in the "Good" category increased (13% to 18%) and the percentage in the poor category decreased (47% to 46%).

*Bridge Condition Assessments:* The existing bridges were inspected, rated and reported in the National Bridge Inspection database by the States' Bridge Inspection Program (BIP). Trend data shows over the last 5 years bridge conditions exhibit mild fluctuations with no significant changes. From 2006 to 2010, the percent of bridges which are not structurally deficient has risen from 75.5% to 78.1%. During that same time period the percentage of bridges that were deficient or obsolete decreased from 24.5% to 21.9%.

For the *PRP Program* data is collected by FLH over a 3 to 4 year cycle. Using the automatic road analyzer vehicle, data is collected for cracking, rutting, roughness, geometrics, and global positioning information. This data is processed thru index formulas and used to create a PCR value for paved road assets.

A more realistic and reliable NPS road network condition is reportable thru the utilization of pavement management system (PMS) Software. PMS Software uses pavement performance modeling (a condition deterioration trend curve) for each pavement segment so that current pavement condition is projected. This accounts for network asset deterioration since a previous RIP inspection cycle, as well as improvements thru preservation and rehabilitation efforts. This makes it possible to estimate an accurate snapshot of the pavement condition at any given point in time. Development of the PCR value thru performance modeling is a more rational and dependable method of determining pavement conditions reported each year.

**Road Condition Assessments:** FLH continued updating the RIP Program and PMS database for the PRP. The data was analyzed in the PMS via the pavement performance modeling approach and shows there

is a continuing downward trend of PCR values from 2008 to 2010. In addition, there has been a significant increase in the percentage of roads in poor condition form 48% to 61%. Both the Good and Fair categories lost percentage points to the Poor condition rating.

*Bridge Condition Assessments:* The existing bridges were inspected and rated by FLH under the NPS BIP. Compared to States and other Federal Agencies, the NPS has a low percentage of structurally deficient bridges and a high percentage of functionally obsolete bridges; the latter is primarily due to the NPS roadway standards and emphasis on historical preservation. From 2006 to 2010, the percentage of bridges that are not structurally deficient has increased from 75.7% to 76.1%. During this same time period, the percentage of bridges that are deficient or obsolete has decreased from 24.3% to 23.9%.

For the *FH Program* in Western and Central U.S., data is primarily provided by state and county governments. The RIP Program performs an independent, comprehensive, and objective road inventory condition survey for all the designated Forest Highways and paved Forest Service Roads in the 23 states and territory of Puerto Rico of the Eastern Region (R9) and Southern Region (R8) of the U.S. Forest Service. The PCR is a combination of the collected distresses or Surface Condition Rating (SCR) and the International Ride Index (IRI) providing a weighted value for each (60/40, respectively) and calculated to present a normalized 1-100 scale where the higher value is equal to a better overall pavement condition.

Road Condition Assessments: FLH continued updating the RIP for Forest Highways. The roads assessed in FY 2010 were in the states of North Dakota, South Dakota, Wyoming, Colorado, New Mexico, Utah, Arizona, Nevada, California and Hawaii. The Average PCR for these roads was 77, lower than the PCR determined in FY 09 for roads assessed in the western states of Alaska, Oregon, Washington, Idaho and Montana. The percentage of roads rated "Good" fell from 57% to 36% while those rated "Poor" decreased from 11% to 13%. Those rated "Fair" increased from 32% to 51%.

Bridge Condition Assessments: The existing bridges were inspected, rated and reported in the NBI database by the States' BIP. Trend data show that over the last 5 years FH bridge conditions exhibit very mild fluctuations with no significant changes. From 2006 to 2010, the percentage of bridges that are not structurally deficient has increased from 77.3% to 77.4%. During this same time period, the percentage of bridges that are deficient or obsolete has decreased from 22.7% to 22.6%.

The *RR Program* data is manually collected by FLH and based on a Remaining Service Life (RSL) system for distress identification. Therefore, this data set is more subjective. The PCR is a combination of the collected

distresses normalized to a 1-100 scale, where the higher the value the better the overall condition.

**Road Condition Assessments:** From 2006 to 2010, the Average PCR for the USFWS system increased from 73 to 81. The percentage of roads rated "Good" increased from 38.7% to 64.5% while those rated "Poor" fell from 29.7% to 11.8%. Those rated "Fair" decreased from 31.6% to 23.7%.

*Bridge Condition Assessments:* Trend data show that over the last five years RRP highway bridge conditions reflect slight fluctuations. From 2006 to 2010, the percentage of bridges that are not structurally deficient has increased from 65.1% to 70.6%. During this same time period, the percentage of bridges that are deficient or obsolete has decreased from 34.9% to 29.4%.

#### Goal 3: Program Delivery —

The Program Delivery goal is defined as the effective and consistent delivery of the FLH Programs through successful partnerships, value-added stewardship, and risk-based oversight. FLH has identified 14 strategies and measures under the categories of Stewardship and Oversight/Enhance Partnerships, IRR Program, NPDES Compliance, Environment, Planning, and Program Delivery to meet this goal in FY 2010.



Grand Canyon National Park, Arizona

**Stewardship and Oversight (S&O)/Enhance Partnerships (II):** The annual objectives for this goal area included: 1) Sign S&O Agreements with NPS; 2) Draft Report of Findings and Action Plan stemming from national/regional

outreach efforts; 3) Conduct a minimum of 10 project reviews on Recovery Act projects; and 4) Conduct 1 program review supporting the FH Program.

Results: In FY 2010, FLH's resources were directed first and foremost to providing oversight on the use of core program and Recovery Act funds. Independent Recovery Act reviews were conducted at each FLH division office by National Review Teams (NRTs) from FHWA's Program Management Improvement Team. These reviews focused on the Plans, Specifications, and Estimates (PS&E), contract administration and QC/QA of construction materials and provided an independent perspective on FLH's delivery capacity. In addition, a NRT conducted a series of reviews on tribal projects using similar focus areas as above. FLH far exceeded its goal to provide oversight on at least 10 Recovery Act funded projects. FLH was in a unique and favorable position to deliver many of the Recovery Act projects on behalf of our partners. Therefore, FLH provided both programmatic and project level S&O on a vast number of projects that approached the agency's goal of 30%. Many of the NRT reviews were conducted in the last month of the fiscal year; therefore, the "Draft Report of Findings" is targeted for completion in November 2011. The Program fell short on meeting its goals to secure a signed S&O agreement with the NPS and conducting a review of the FH Program. Progress was made in addressing regional concerns with the NPS through a series of focused meetings on S&O and delivery. Similarly, progress was made in gathering feedback on policy and program issues from all core partners through a series of one-on-one leadership meetings throughout the year.

Over the past 4-5 years, the program has made strides under S&O but it has become increasingly clear that, if we are to have meaningful agreements with partners and subsequent S&O actions that will improve delivery, the program must first develop a S&O Policy and Guidance document to ensure all FLH offices understand and buy-in to their role in supporting S&O. The development of this policy is a primary SIP initiative in FY 2011. Once completed, FLH will be in a much better position to finish S&O agreement endeavors with the NPS and BIA and implement meaningful S&O activities with the USFWS and USFS.

**IRR Program (II):** The IRR Program continued to evolve as more tribes have elected to enter into agreements directly with FHWA. Funds from the Recovery Act significantly increased the overall funding threshold from \$450 million annually. In FY 2009-2010, the program received an additional \$310 million in Recovery Act funds. This high-risk program required special focus in FY 2010 to deliver the program and provide the necessary oversight to ensure both Core and Recovery Act funds were effectively used for eligible Title 23 activities.

*Results:* The new IRR Team reorganized structure was formally approved and human resources were aligned to work with an expanding number of Tribes

entering formal agreements with FHWA. In FY 2010, there were a total of 78 FHWA tribes, with more agreements expected in FY 2011. Over the summer, the IRR Team worked closely with the FHWAs Human Resources office to fill much needed vacancies to accommodate the increased workload as a result of these agreements.

It was also an extremely busy year because of the influx of additional funding for the IRR Program from the Recovery Act. Close to 100% of Recovery Act funding was obligated in FY 2010, this was accomplished with close coordination with the BIA and the Tribes. This was a significant achievement for the IRR Program and was made possible by focused implementation of Recovery Act Mitigation Strategies.

In addition, the IRR Team led the program reviews of the BIA Pacific and Southwest Regions. A report of the findings of the review is expected to be completed in FY 2011. The Team met face to face with each FHWA Tribe as well as every BIA Region to better understand the program and provide technical assistance and support to the Tribes.

**NPDES Compliance (II):** Implement approved FLH-wide recommendations from the FLH NPDES Process Review Final Report by committing resources to training development and updating project delivery guidance.

Results: A draft training curriculum to improve NPDES compliance was distributed for review and comment. A review of the PDDM and Construction Manual was also initiated to better align NPDES requirements. FLH expects to complete both efforts by January 31, 2011.



Mission Ridge, Washington



Madison Junction to Norris Junction, Yellowstone National Park, Wyoming

**Environment (PE):** Improve the quality and streamline the delivery of the NEPA process by reducing the median time for Environmental Impact (EIS) and Environmental Assessment (EA) document delivery, and improving the score on the Environmental Collaboration Survey.

Results: Nine Findings of No Significant Impact (FONSI) and one Record of Decision were signed. One FONSI delayed project delivery. One hundred fifteen Categorical Exclusions were signed which accounted for 92% of all FLH NEPA actions (WFL-65, CFL-18, and EFL-32). FLH achieved our target of completing 90% of our EIS and EAs within the median time. Sixty-nine surveys were returned from our partner, resource, regulatory and permitting agencies representing 47 projects, reflecting a score of 85.2%, slightly above our target of 85%.

**Planning (PE):** Enhance decision-making through development of Long-Range Transportation Plans (LRTP)

Results: The FLH Planning Team made significant progress at the National/Regional/State level. The following projects were completed: Alaska Multiagency LRTP; USFWS Climate Change Adaptation project; and NPS NER. At the Unit level, the Planning Team completed the following: Yosemite NP Transportation Plan; Wichita Mountains NWR Alternative Transportation Study; Rocky Mountain National Park/Estes Park Transportation Study; and the Arapahoe Roosevelt National Forest Transportation Study.

A number of LRTPs are either completed or moving toward completion. Eight LRTPs were completed for the Forest Service in Oregon, California,

Nevada, Colorado, Utah, Georgia, Virginia, and Minnesota, and 8 are in progress: Washington, Idaho, Montana, Alaska, New Mexico, Arizona, South Dakota, and Wyoming. Progress on FH LRTPs in Region 8 and 9 has been delayed pending the new Federal transportation authorization bill. For the NPS, 4 plans are in process: National Capital Region, Northeast Region, Alaska Region, and Intermountain Region. For the USFWS, 5 plans are in progress: National Capital Region, Pacific Region, Alaska Region, Midwest Region, and Mountain-Prairie Region. The BLM has 2 plans in process: National and Alaska Regions.

**Program Delivery:** The FLH overall program measures reflect FLHs ongoing efforts to improve customer satisfaction and delivery of projects.

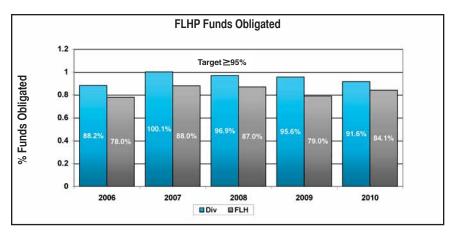
**Customer Satisfaction (OP):** Results of three surveys (Program Administration, Project Development and Completed Project) focus on the delivery of the FLH Program.

*Results:* The FLH Program conducts these surveys to continually improve on the products and services we provide to our customers as well as continually improve as an organization in meeting FHWA strategic goals. In FY 2010, FLH exceeded the 85% target for the Project Development and Completed Project Surveys. For all 3 surveys combined, our score meets our target of 85%.



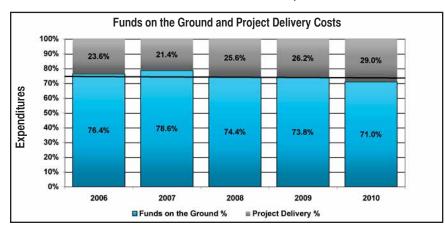
**Percent of Funds Obligated (OP):** Cumulative obligation rates for core FLHP Programs.

*Results:* Annual data for funds obligations at the end of the fiscal year includes the four major FLH programs: PLH, PRP, RRP and RR. The percent of funds obligated is a reflection of the efficiency of using or spending these funds. In FY 2010, PLHD funding and allocations required OST review and approval. Corporately, FLH obligated 84.1% of FLHP funds available. Our division obligated 91.6% of available funds.



**Percent of Funds "on the Ground" (OP):** Construction funds obligated as a percent of all program obligations.

Results: The FLH target is to obligate a minimum of 75% of our funds for construction "on the ground" and a maximum of 25% of our funds for the planning and engineering to deliver our projects. By managing these costs, we are able to maximize the funds that are spent "on the ground". The trend data in the chart below shows a decrease in our percentage of funds on the ground to 71% in FY 2010. This decrease is most likely because of delivery costs for Recovery Act projects that were financed with FLHP funds while the construction contracts were financed with Recovery Act funds.



Risk Management: Conduct full corporate risk assessment internally.

Results: FLH completed a FY 2011 corporate risk assessment using a multidivisional team lead by the Stewardship & Oversight Coordinator. The

risk assessment results were packaged with the FIRE risk assessment results and presented to leadership in March 2010. After validation by leadership, three high risk corporate areas were identified for attention in the FY 2011 FLH SIP, unit action plans, or individual performance plans. They were: Recovery Act delivery; the IRR program; and NBIS compliance by federal agencies. The corporate risk assessment data was provided to the divisions to assist them with their own division-specific risk assessment and their Recovery Act risk assessments. It was also used to complete the Federal Managers' Financial Integrity Act (FMFIA) Unit Risk Profile sent to FHWA.

Financial Oversight: Identify an FTE in the FHWA Office of the Chief Financial (CFO) Office dedicated to FLH financial management activities and liaison with the Federal Land Management Agencies' contacts. Include the individual in FLH activities as appropriate; Finalize/update "all" outstanding financial management policies and launch a new FLH website that contains all updated policies and financial technical discipline information from FHWA; If needed, institutionalize local processes where financial management activities are executed by staff possessing the right skill sets & competencies and the appropriate checks and balances exist between project delivery and financial functions; Conduct FIRE Reviews and issue FMFIA certifications in June and September; Issue Project Reconciliation policy and procedures; and continue to track progress of DELPHI Transformation effort and continue to dedicate FLH resources on teams charged to define requirements of the next generation accounting system.

Results: The Finance Team continued to build upon the recommendations identified during the Financial Review conducted in FY 2009. The Team tracked the progress of the DELPHI Transformation effort and dedicated FLH resources on teams charged to define requirements of the next generation accounting system. Team members provided critical policy and program issues related to FLH program delivery requirements to ensure that its' concerns were considered during the discussions and as final decisions on a system were made. The Team also updated financial policies for Project and Financial Module Reconciliation, and Managing Reimbursable Authority. The changes were implemented throughout the FLH organization and were instrumental in achieving a successful close out of FY 2010. A financial risk assessment was also completed using the FLH corporate tool and was presented last April. This assessment also provided supporting documentation that was used during an FIRE Financial Management Process review of inactive obligations, inactive projects and project closeouts.

An audit was conducted by the firm, Clifton Gunderson, at EFL on July 29, 2010, one of three FHWA divisions audited in FY 2010. The emphasis was on financial operations and business processes. EFL staff provided a presentation to give the auditors a better understanding of FLH and how we compare to Federal-aid Divisions. The auditors requested numerous documents, including the presentation, risk assessment, reimbursable process, organization chart, FLH policy memorandum regarding the point

of obligation, the inactive obligations spreadsheet from the FIRE Standard Working Papers, a trend analysis of inactive obligations from 2007 through 2010, and documentation for specific inactive obligations. Staff conducted a "walkthrough" of two specific projects, and provided over 160 pages of project documentation. The auditors were impressed with the Quality Business System (QBS), an ISO 9001 compliant system, which defines our core processes. Staff illustrated risk assessment process and FIRE risk assessment are incorporated into daily business. Other areas of interest included the bridge inspection program, procurement process, the point of obligation policy regarding commitment of funds, construction closeout process, project management system, and the project reconciliation process. After the audit, the audit firm contacted the FHWA CFO indicating their pleasure with the EFL's progress with closing inactive obligations and with reducing the inactive obligation balance from over \$71 million to \$8.7 million in July 2010. However, inactive obligations are still considered a top risk that EFL should develop a strategy to address in FY 2011.



Monongahela National Forest, West Virginia

**Asset Management:** The Asset Management (AM) Team was tasked with developing an approach to AM that is consistent across all the FLH Division Offices and takes into account the various stages of understanding and implementation that exists within the FLMAs, and identifies the incremental steps for improving how data and management systems are used to make informed transportation and resource allocation decisions, while providing accountability for these decisions.

Results: In FY 2010, the FHWA/NPS Transportation AM Team developed Project Agreements for Bridge Management, Safety Management,

Transportation Data Integration Program, and Pavement Management Systems. A Project Agreement was also designed for the Forest Service "Land Between the Lakes" Safety Management Pilot Project.

As part of the agreement with Safety Management, crash analysis best practices and crash data entry options were reviewed. The Team also completed a modification to the Statement of Work (SOW) to continue work on the Data Integration Task Order. The agreement with the Pavement Management System resulted in delivery of regional PMS analyses, development of a life cycle cost analysis tool, and an investigation of RIP indices.

A Program Management tracking tool incorporating all Management System activities into Microsoft Project was also developed: to define roles, responsibilities, and communication protocols between MS; to complete and summarize the risk assessment results for all MS; to develop and apply a task prioritization methodology based on a selected group of factors; and to generate resources and budget scenarios to compliment the risk assessment and prioritization methodology for selecting FY 2011 tasks.

The Team also developed a SOW for a Region 2 USFWS Pilot Project for Project Prioritization to look at using "Stantec" pavement management software to prioritize the unpaved roads, as well as the paved roads in the Region. The results of this pilot project will determine if the software can be used in other USFWS regions and on Forest Service unpaved roads.

**Geographic Information System (GIS):** The GIS Team focused on three activities this year: Developing tools to view and analyze FLMA management system information; assisting with decision-making to help manage FLMAs transportation assets; and developing new and innovative ways to streamline processes within FLH.

Results: In FY 2010, the GIS Team completed several NPS-related activities. A business case was prepared for the development of a GIS website for NPS RIP data and NPS safety management system data. The Team ensured that the business case aligned with DOT, FHWA, and FLH strategic objectives, provided a cost-benefit analysis on multiple alternatives, determined life-cycle costs, and identified an implementation and reporting plan for the project. The Team also coordinated NPS activities with the Safety Management Team to develop a methodology to locate crashes using GIS tools that could be used by NPS law enforcement; to manage development of software for the NPS Washington Area Support Office to enter crash data into a database; and to provide GIS maps and Google Earth files to be used in performing safety studies for parks in the NE Region.

For a USFWS project related to climate change, the GIS Team assisted the Hydraulics Team with developing methodologies to show effects of flooding and inundation by sea level rise, and provided instructions on how GIS methods are used to prepare maps for climate change and to determine flooding effects on USFWS roadways.

The GIS Team also coordinated a number of activities across FLH including: providing assistance to define GIS mapping reporting and web page design for public reporting of Recovery Act project information; assisting RIP and Geotechnical Teams by creating an extensive step-by-step, easy to use manual for data collection processing in the field; development of a website for downloading USFWS RIP Reports; and deployment of the ERFO program, a web based program that allows ERFO applicants to apply, track approval process, and create a database of projects that will provide real time locations and spending levels. The Team also developed best practices for sharing ata across FLH, which will also allow real time access to Division data for summary functions.



View of Golden Gate Bridge, California

#### Engineer's Estimate, Bidding, Award, and Construction System

(EEBACS): In FY 2010, the EEBACS core team completed testing the EEBACS Construction module and the system security (the Design and Acquisitions modules were completed prior to FY 2010). EEBACS was accepted in September 2010 and is now in the maintenance and support phase. Piloting of EEBACS can begin as soon as FHWA issues an Authority to Operate as part of the information systems security Certification and Accreditation (C&A) process. The C&A process for EEBACS, includes coordinating with FHWA's Information Systems Security Officer (ISSO) and the Developer, as well as documenting, developing, and updating procedures in the EEBACS Administration Operations Manual and EEBACS User Guides. Development also began this year on the "off-line" module for Construction projects that are anticipated to have limited internet access. The EEBACS Team continues to coordinate with FHWAs ISSO, the FLH Leadership Team and Board of Directors (BOD), and EEBACS sub-team members to develop a smooth implementation process.

**Procurement:** The delivery of the core program coupled with the Recovery Act was, and continues to be, front and center for the organization. Transportation improvements and job creation are not possible until the projects are advertised and awarded by our acquisition staff. Countless other acquisition actions are needed to keep projects on schedule, and services and supplies to keep our Divisions operating. In FY 2010, an unprecedented level of acquisition actions were initiated and accomplished by our acquisition professionals. The FLH BOD and the Leadership Team purposefully minimized corporate activities to support the delivery of the program and projects. Countless hours (and weekends/after hours) were worked to ensure the projects were advertised and awarded within the appropriate timelines. Our program's successful obligation Recovery Act rates were the result of the hard work of all FLH employees. Our acquisition corps shares a significant part in that success.

FLH supports the goals of the DOT's Small and Disadvantaged Business Office whose mission is to promote successful partnerships which result in an inclusive and effective small business procurement process. The FHWA target for small business is 38% of our total procurement, we exceeded that target with a 45% accomplishment. In addition, there are 4 small business categories with performance targets. In FY 2010, FLH exceeded the targets in 3 of those areas.

**FP-12:** FLH is currently using the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP) — FP-03, published in 2003. During the past two years the FLH Specification Coordination Group (SCG) has coordinated an effort to have technical teams from Bridge, Construction, Design, Environment, Geotechnical, Hydraulics, Pavement and Materials, Procurement, and Safety review all FLH Division and FLH-wide specifications and propose changes for the new FP. FHWA goals for accelerating technology and innovation deployment are being implemented with new specifications for items such as Warm Mix Asphalt and Safety Edge. The Forest Service, which also uses the FP, is participating. This is resulting in a large number of proposed specification changes that the SCG is processing with the goal of publishing an FP-12 in 2012.

**Discipline Management:** Manage technical disciplines within FLH. Ensure alignment with FHWA disciplines and learning highway initiatives.

Results: The FLH Discipline Champions are responsible for: 1) representing FLH on FHWA Discipline efforts; 2) coordinating interaction within FLH; and 3) coordinating policy issues. Many steps were taken to meet our objective of managing the technical disciplines and ensure alignment with FHWA disciplines and Learning Highway initiatives. These included monitoring accomplishments and resource needs of the Discipline Champions, financial accountability, reviewing individual goals and objectives, coordination with Every Day Counts technologies and supporting attendance at FHWA Discipline Seminars.

**Project Management:** In FY 2010, the Project Management Technical Specialist Leader completed the following activities: 1) provided training on Project Management-Project Control Methods and Tools at the FHWA Engineering Seminar in April 2010; 2) assisted in a 1-day Project Risk Assessment Workshop utilizing input from representatives from each FLH discipline to develop a USFWS project risk register; 3) consolidated over 140 possible risks on USFWS projects into a manageable USFWS project risk register template; 4) coordinated completion of another FLH Project Management Handbook so new staff to FLH can find answers to common questions that are asked about how to deliver and manage projects; 5) promoted sharing best practices by developing a detailed report documenting each Division's Status Meeting and then sharing this report with Division leadership; 6) assisted in finalizing competencies for the FHWA Construction and Project Management Discipline; 7) worked with the FHWA Innovative Program Delivery Office to train 15 FLH employees under the FHWA Project Management Certification Program and obtain Associate Project Management Certificates; and 8) for the second year administered the "hands on" laboratory course to educate senior college students on the process of delivering highway projects. The course was held during the fall semester at George Mason University.

Hydraulics: The Hydraulics Team developed and delivered new FHWA national hydraulic engineering guidance document, HEC 26, "Culvert Design for Aquatic Organism Passage." An associated computer spreadsheet was also developed to facilitate implementation and use of the Aquatic Organism Passage (AOP) design procedure. The spreadsheet will be used to execute all iterative computations required by the procedure and act as a "bridge" between the procedure and the software used to determine the culvert hydraulics (i.e., HY8 or HEC-RAS softwares). The Hydraulics Team also developed and delivered new Culvert Assessment and Decision-Making guidance for use during project development, along with a new Culvert Assessment policy, which was adopted by CFL as a Project Development and Design Manual (PDDM) supplement. PDDM revisions were drafted for existing roadway drainage criteria and AOP design policy.

Other activities included the development of a suite of hydraulic engineering calculators for conducting a variety of hydraulic analyses and drainage designs; and updates to various sections of the Standard Specifications, FP-03, associated standard drawings, and test methods for the future FP-12. As part of its ongoing discipline efforts, the Team developed and delivered Hydraulic Engineering sessions during the FHWA's Discipline Seminar last May and the National Hydraulic Engineering Conference in August.

*Geotechnical:* FLH geotechnical engineers completed discipline improvement initiatives such as: 1) completed the final phase of the FP-12 updates; 2) delivered Discipline Support (DSS) training and attended DSS sessions in both Dallas and Memphis; 3) delivered multiple technology development projects; 4) participated in the development and delivery of National Highway Institute (NHI) courses; and 5) assisted with Resource Center support activities such as the Columbia River Crossing (CRC) bridge type, size and location review.



Seismic Study, Apache Trail Scenic Byway, Tonto National Forest, Arizona

FLH is especially proud of these additional accomplishments, projects, that represent FLH's commitment to Program Delivery:

Mike O'Callaghan-Pat Tillman Memorial Bridge: The \$240,000,000 Hoover Dam Bypass project (which includes 8 separate bridges, 5-miles of roadway, and the centerpiece (the Mike O'Callaghan-Pat Tillman Memorial Bridge)) was completed in FY 2010. Sitting 900 feet above the Colorado River adjacent to the Hoover Dam, it is the highest and longest arched concrete bridge in the Western Hemisphere. The bridge also has the tallest concrete columns of its kind. Construction was substantially complete in September 2010, and the bridge was dedicated on October 14, 2010. The project was completed on original budget without disputes or claims.

Olympic National Park — Emergency Slide Repairs, Hurricane *Ridge Road:* A major roadway failure occurred January 18th, 2010 at Mile Post 4.7 on the Hurricane Ridge Road, located within the Olympic National Park, near Port Angeles, Washington. The slide resulted in the catastrophic loss of the roadway, when approximately 7,000 cubic yards of roadway embankment was flushed down the steep drainage channel, taking with it approximately 50 feet of the existing concrete culvert. There were no injuries; however the roadway was rendered impassible. The Olympic National Park requested assistance and WFL responded immediately with design, geotechnical and construction support. Working together, the Olympic National Park and WFL were able to use emergency procedures to procure a local Contractor and construction began on January 22nd, 2010, scarcely 4 days after the slide occurred. The scope of work entailed removal of 19,400 cubic yards of unsuitable material, 50,000 tons of rock borrow for the embankment replacement and 260 feet of new 42-inch plastic coated steel culvert. Due to the successful execution of the plan and the unseasonably good weather, the entire project was completed in 5 weeks, beating even the most optimistic projections. The road was opened to the public on February 27th.





before & after: Hurricane Ridge Road, Olympic National Park, Washington

**Blue Ridge Parkway:** On September 11, 2010 the FHWA and FLH were honored to be invited to participate in the celebration of the 75th Anniversary of the Blue Ridge Parkway. Numerous Congressman, Governor's, and Federal officials, including our own Mr. Greg Nadeau, Deputy Administrator, came and spoke. The event was marked with numerous historic and cultural events, presentations, music, displays and a memorial service of the 9/11 World Trade Center disaster. This weekend event was not only a celebration, but a reunion of past and present FHWA and NPS employees, including those who either worked for or with the Bureau of Public Roads.



FHWA Deputy Administrator presents plaque to the Blue Ridge Parkway Superintendant during 75th Anniversary festivities at Cumberland Knob, North Carolina

#### Goal 4: Corporate Capacity —

Corporate Capacity is defined as the ability to optimally deploy our organizational resources to meet today's and tomorrow's mission. FLH has identified 4 key strategies to meet this goal in FY 2010; IT Governance, Employee Satisfaction, Discipline Management, and Marketing & Graphic Design.

**IT Governance (II):** Develop a structure in which FLH will utilize IT by integrating existing and former IT-related teams with the FHWA IT Strategic Plan.

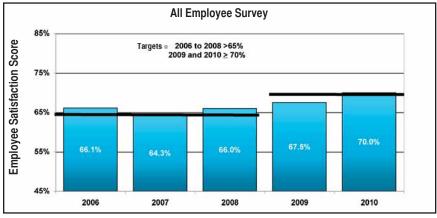
Results: While FLH has successfully delivered programs and projects for its partners and customers for many years, a critical foundational element of successful program and project delivery has been our ability to leverage IT to support and enable our business arm. In the past few years, the agency has experienced many changes including but not limited to centralization of IT services, heightened security via certification and accreditation of systems, applications and hardware; and the institution of streamlined and coordinated agency investment protocols via IT Governance Procedures/Investment Review Board. During this period, FLH has complied with Federal and agency requirements while attempting to mitigate adverse impacts to delivery and/or seek opportunities to deliver more effectively. These initiatives have required extensive resources and have left the office little time to seek proactively internal opportunities, outside standing teams e.g., EDM, to operate more consistently, effectively and efficiently across units. As a result, FLH Leadership decided to change the focus of this initiative in order to gain a better perspective of FLH's environment and opportunities. In FY 2011, we will convene a team of outside experts to conduct an assessment of FLH's IT processes. The recommendations made by the team will be used to formulate IT policies and corporate implementation strategies to ensure FLH continues to administer its IT functions consistently and in accordance with agency policies. Additionally, the findings will provide FLH leaders

with information on potential improvements that will improve delivery and maximize efficiencies. Two related, complementary efforts involve an internal assessment of the effectiveness of existing FLH IT Standing Teams in addition to the identification of innovative practices with an IT component, that could enhance our delivery.

**Engineering Data Management (EDM):** The Data Management Team ensures effective data exchange and sharing is readily available to support FLH and FLMAs functions by developing policy and standards to ensure data management efforts are aligned, resources are being used effectively, and compatible data structures and support IT systems are being developed.

Results: The Data Team developed a Data Policy and submitted it to the BOD for approval. The BOD concurred and forwarded the document to the Leadership Team for final review and approval. In developing the Policy, the team collected information from each Division on the types of databases and applications being used and added this information to the revised Data Catalog Tool. The Data Catalog will be used to store and track metadata about all known FLH databases and applications, determine how the data is being used, and identify who is responsible for managing the data. The information collected and stored in the Catalog will also ensure that all data activity conforms to the Data Management Plans identified in the new Policy. The Team plans to roll out the Data Policy and revised Data Catalog Tool in FY 2011.

**Employee Satisfaction (OP):** The FLH overall program measure below reflects FLH's ongoing efforts to improve job satisfaction of FLH employees:



Results: FLH conducted bi-annual surveys until 2006 and will no longer conduct a separate all employee survey. The survey results shown for 2010 are from the FHWA bi-annual "short" survey. The survey includes customer satisfaction scores in eight categories: job quality, communication flow, senior support, organizational structure, customer focus, learning and

development, workgroup management, and work life quality. FLH achieved our new target of 70% this year with the highest satisfaction score ever achieved on this survey!

**Marketing & Graphic Design:** Providing graphics and marketing expertise to promote FLH/FHWA programs and projects to educate the general public, partners and members of Congress through print, web, and multimedia.

Results: The following activities were successfully completed in FY 2010: redesign of FLH Annual Report to facilitate expanded use as an internal & external tool; redesign of the Natchez Trace Parkway informational brochure documenting FLH role in construction of the famous Double Arch Bridge for use in training courses in the project local area; designed SAFETEA-LU accomplishments brochure, a tool for Congressional and citizen education on the delivery of the FLH program and use of taxpayers' dollars; coordinated planning for the Blue Ridge Parkway 75th Anniversary event, including logistical support, designed commemorative partnership plaque, book and poster working very closely with the NPS planning team. The event was a great success that drew large crowds of retirees, dignitaries and the public solidifying the lasting relationship between EFL & NPS; facilitated general web content management and OMB policy compliance while ensuring the continuation of a coordinated web presence for FLH; collaborated with NPS to develop communication plans aimed at easing delays to the traveling public for several projects this year.

FLH is pleased to report these additional accomplishments and activities that exemplify Corporate Capacity:

Training and Development: FLH has continued its commitment to train and develop employees by attracting new, entry-level, employees through the Student Temporary Employment Program/Student Career Employment Program (SCEP/STEP) programs, details and FHWA's Professional Development Program (PDP). Because of a well developed recruitment program we have attracted a sizeable number of young employees in both the professional and technical fields. Our SCEP program had 21 enrollees and the STEP program provided 31 employees. During FY 2010 we hired 68 new employees which increased our participation in minority and female employment.

Not only did we succeed in attracting many new employees during FY 2010, we continue to train and develop our existing workforce. Through the PDP, 24 employees obtained valuable experience in our division offices. We also provided detail opportunities for 16 employees. This included in-house assignments, a Federal-aid assignment, a partner agency assignment and support to efforts in Afghanistan. We have hosted a number of NHI training courses providing opportunities for both our employees and non-FLH transportation professionals.

All of these programs continue to fortify our organization as a whole by producing knowledgeable and qualified personnel.

# Awards & Recognition

#### Richard D. Morgan Leadership Development Award —

John Baxter, FLH

This award was designed to honor those team leaders, managers and supervisors who, as leaders, are nurturing and supporting the development of their employees to ensure a future cadre of FHWA organizational leaders.

#### Heartland Award —

Donald Miller, EFL

The Heartland Award was established in 1995 to honor the memories of those lives lost in the blast at the Murrah Federal Building in Oklahoma City and to recognize the dedication of the survivors. This award is granted to an individual employee or to a team whose exceptional service to the public reflects the high level of dedication and determination exemplified by the Oklahoma Division employees.

#### Carol H. Jacoby Honorary Award —

Alan Teikari, EFL

The Carol H. Jacoby Honorary Award is FLH 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. Alan's dedication to FLH has been unwavering throughout his 30 years of service. He has always been one to accept challenges and see issues through to completion and is highly respected by all.

Nominees for this award included:

Galen Balster, FLH Lynda L. Moore, EFL Kevin R. Black, CFL Peter C. Field, WFL

Adam L. Ahola WFL

### $Secretary's \ Meritorious \ Award -$

Kurt Dowden, EFL

Presented to Kurt for his work with the completion of the Heartland Corridor, a project that has earned EFL huge accolades within the transportation community.

#### Northern Human Resources Committee (NHRC) Award —

Lynda Moore, EFL

This award recognizes employees of FHWA that exhibit and/or provide outstanding leadership as part of implementing the requirements of their position. Lynda's commitment, her leadership abilities and her determination to provide excellent customer service are exemplary of the superior qualities of a true leader.

#### Secretary's Team Award — Recovery Act Evaluation and Data Team

Galen Balster, FLH Terry Haussler, FLH Jeffrey Mann, FLH

#### Administrator's Awards for Superior Achievement

Aron Reif, FLH Mark Meng, CFL
Teresa Daniel, EFL Kevin Black, CFL

Raymond Hatten, EFL Henry "Paul" Rettinger, WFL

Jeffrey Johnson, EFL Dennis Quarto, WFL

Michael Voth, CFL

# Leadership Award in recognition of conducting outreach to our Nation's wounded soldiers and creating an engaging partnership

Darcel Collins, FLH

#### Administrator's Award for Excellence in Teamwork — CFL

Hoover Dam Bypass Team for the successful delivery of the highest and largest concrete arch bridge in the Western Hemisphere.

Ed Hammontree Suzanne Schmidt
Craig Holsopple Ricardo Suarez
Bonnie Klamerus Scott Wolfert
Patricia Mayorga Barbara Quintana
Tyler Young Dave Zanetell

# FHWA's Transportation Planning Discipline Recognition Program Award for "Collaboration" — Forest Highway Program Transportation (Multi-Disciplinary) Planning Team — CFL

Recognized for its advancement of systems-level long-range transportation planning for the Forest Highway Program.

Susan Law Rick Simansons Elijah Henley Melissa Dickard

Ryan Tyler

#### FHWA Every Day Counts Team Awards

Terry Haussler, FLH Margaret Lomax, FLH

# Awards & Recognition

#### FHWA Working Group on the Livability Initiative

Scott Johnson, FLH

Aron Reif, FLH

#### FHWA Performance Management Transition Team

Aron Reif, FLH

#### Notice of Proposed Rulemaking Tunnel Team

John Thiel, EFL

#### FHWA Excellence in Highway Design Award — CFL

Highway Design Award for an Honorable Mention recognition in the "Rural Highway" category for the SR-200/Saddle Road, Hawaii project.

#### Outstanding Environmental & Engineering Geologic Project — EFL

The Association of Environmental & Engineering Geologists (AEG) & the American Council of Engineering Companies/Metropolitan Washington (ACEC/MW) both recognized a George Washington Memorial Parkway project in Arlington, VA for its innovative rock slope stabilization design, a cost effective solution to achieving the dual goals of protecting the traveling public from rockfalls and preserving highway aesthetics.







Going Greener Award

#### Organizational Excellence Award — WFL

In recognition of the 20 years that Western's Senior Leadership Team (SLT) has maintained a consistent vision and utilized business focused strategic planning processes to realize that vision. Key metrics are tracked and

combined with other indicators of operational effectiveness, which the SLT reviews and analyzes to achieve continuous improvement. Communications between leadership and staff are accomplished through various methods to ensure alignment. The results are reflected in program and project delivery improvements, cost control, partner satisfaction, technical innovation, and workforce development.

#### Going Greener Award — WFL

The first organizational unit of FHWA to receive this award. These efforts have evolved over the past decade to the point that environmental considerations are now an integral part of how we operate our building. Successes include, office wide recycling, and composting programs, installation of waterless urinals, energy efficient electrical and HVAC equipment and use of recycled paint. The results of these changes are tracked and show substantial progress, including decreases in utility costs and landfill waste and increases in recycled supplies.

#### Partnership Award — EFL

The State of Virginia, Department of Rehabilitative Services (DRS) presented the Eastern Federal Lands Highway Division a Partnership Award for championing the employment and advancement of Virginians with disabilities through the contract with "Every Citizen Has Opportunities (ECHO)." Echo provides Eastern's mailroom and central reception services and has provided great support for extensive office renovations done during 2010.



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