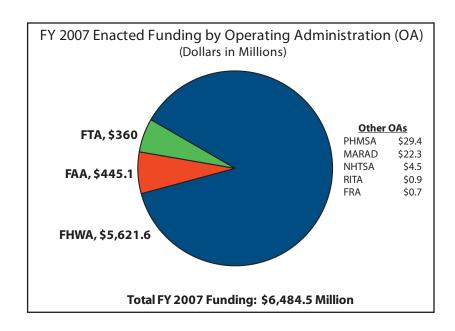


# **ENVIRONMENTAL STEWARDSHIP STRATEGIC GOAL**

PROMOTE TRANSPORTATION SOLUTIONS THAT ENHANCE COMMUNITIES AND PROTECT THE NATURAL AND BUILT ENVIRONMENT



# STRATEGIC OUTCOMES

- → Reduce pollution and other adverse environmental effects of transportation and transportation facilities.
- ♦ Streamlined environmental review of transportation infrastructure projects.

# PERFORMANCE MEASURES

- ♦ Number of exemplary ecosystem initiatives undertaken
- Percent DOT facilities characterized as No Further Remedial Action under the Superfund Amendments and Reauthorization Act.
- ♦ 12-month moving average of the number of areas in a transportation emissions conformity lapse.
- → Tons of hazardous liquid materials spilled per million ton-miles shipped by pipeline.
- ❖ Percent reduction in the number of people within the U.S. who are exposed to significant aircraft noise levels.

# Reduce Pollution And Other Environmental Effects FY 2007 Enacted Funds: \$6.39 Billion

# **EXEMPLARY ECOSYSTEM INITIATIVES (EEI)**

FHWA promotes environmental stewardship practices by recognizing Exemplary Ecosystem Initiatives (EEI), which are actions or measures that will help sustain or restore natural systems and their functions and values using an ecosystem or landscape context. Examples of an EEI include mitigation projects that support wildlife movement and habitat connectivity, the development of watershed-based environmental assessment and mitigation approaches, the use of wetland banking, and the use of special measures to prevent invasive species along highway rights-of-way. The benefits of adopting Context Sensitive Solution (CSS) concepts throughout all aspects of planning and project development are being promoted to advance solutions that enhance and protect ecosystems as well as enhance communities, historic preservation, active living, beautification, and acquisition or relocation.

**2007 Results** — The target was met. FHWA designated seven additional EEIs during 2007, bringing the cumulative total to 50 initiatives in 32 states. The target was increased last year after the Agency designated 20 EEIs in one year, exceeding the previously established target by a wide margin. An EEI not only provides recognition for

Performance Measure  Number of exemplary ecosystem initiatives undertaken  (target/results are cumulative from year to year).					
	2004	2005	2006	2007	
Target	10	17	24	50	
Actual	15	23	43	50	
Associated FY 2007 Funding — \$ 2.76 billion					

innovative conservation and mitigation efforts, but also serves as best practices for states to follow. These initiatives provide public and non-governmental organizations with actual examples of the environmental accomplishments related to the highway program.

**FY 2008 Performance Forecast** — Because the original 2007 target was exceeded earlier than anticipated, in 2006, the FHWA has replaced the EEI with a new measure for Exemplary Human Environment Initiatives (EHEI). The FHWA expects to meet the target of 10 EHEIs in FY 2008.

# In-Depth Accomplishments Promoting Environmental Stewardship

FHWA continued outreach efforts for *Eco-Logical: an Ecosystem Approach to Developing Infrastructure Projects*. In addition to developing training, the Agency is funding grants for pilot projects that advance *Eco-Logical* and integrated planning concepts. The response from the public, other federal agencies, and states and non-governmental organizations to a solicitation for proposals was robust and FHWA expects to make grant awards in the coming year. In addition, the



FHWA delivered a new training course entitled, *Managing Road Impacts on Stream Ecosystems: an Interdisciplinary Approach*. This course promotes a more environmentally sensitive approach to design by emphasizing a landscape approach to stream restoration and highway project development.

In partnership with the American Association of State Highway and Transportation Officials (AASHTO), FHWA sponsored the development of a national multi-year action plan to advance the implementation of context sensitive solutions. In addition, the agency conducted an in-depth assessment of implementation in every state, which led to targeted strategies and action plans to assist in overcoming obstacles to the effective institutionalization of these practices. The assessment provides a basis for developing expanded criteria, assessment tools, and other resources to validate progress implementing CSS during the coming year.

FHWA awarded funding to the AASHTO for a Center for Environmental Excellence. The Center hosts a comprehensive Web site, captures best practices through concise practitioner guides, conducts targeted problem solving workshops, and manages a program of technical assistance on a variety of environmental topics.

#### **DOT FACILITY CLEANUP**

DOT has a special responsibility to ensure that its own facilities are compliant with environmental laws and regulations. Restoration activities involve identifying, investigating, and cleaning up contaminated sites. Compliance activities include the operation of facilities, equipment, and vessels in accordance with environmental requirements. Pollution prevention activities involve preventing future cleanup activities by avoiding the generation of pollutants in our operations or facilities.

2007 Results — DOT met the FY 2007 target. There are 72 DOT sites on the EPA Hazardous Waste Compliance Docket and all but five of them have attained No Further Remedial Action Planned (NFRAP) status. The latest site to reach that status is FAA's Jackson Homer Beacon Site. FAA is the custodian of the five remaining sites, which are:

Performance Measure					
Percent DOT facilities characterized as No Further Remedial Action Planned under the Superfund Amendments and Reauthorization Act.					
	2004	2005	2006	2007	
Target	92	93	93	93	
Actual	93	92	92	93	
Associated FY 2007 Funding — \$ 675 thousand					

- 1. Ronald Reagan National Airport (DCA);
- 2. Kirksville Air Route Surveillance Radar (ARSR), AFS F-64 (Kirksville AFS);
- 3. Mike Monroney Aeronautical Center (MMAC);
- 4. William J. Hughes Technical Center (ACT), and
- 5. Omaha Ex AF Station Z-71 (Omaha).

To ensure that site contamination will be properly removed and that NFRAP status will be achieved, FAA's Environmental and Occupational Safety and Health Services Group provides funding and oversight support, and has initiated Environmental Cleanup Program tasks focused on these sites. It has short-term actions (1-5 years) to achieve NFRAP status for the Kirksville AFS, and the Omaha Ex AF Station, while longer-term actions (5-20 years) will be necessary to achieve NFRAP status for the MMAC, DCA and ACT.

**FY 2008 Performance Forecast** — DOT anticipates meeting the FY 2008 target.

# **SHIP DISPOSAL**

The Maritime Administration conducts a Ship Disposal Program to help achieve DOT's Environmental Stewardship strategic goal to promote transportation solutions that enhance communities and protect the natural and built environment. Successful pursuit of this program also helps lead to achievement of the Department's desired outcome for reduced pollution and other adverse environmental effects from transportation and transportation facilities.



A launch takes a crew of workers out to do checks and maintenance on ships anchored at the Suisun Bay Reserve Fleet in Suisun Bay, California, Friday, June 29, 2007. From a busy bridge in the suburbs east of San Francisco, commuters catch a daily glimpse of one of the country's stranger graveyards. Moored in ghostly ranks in the brackish water below, the Suisun Bay Reserve Fleet looks from a distance like a fierce phalanx ready for battle - a proud reminder of the San Francisco Bay area's naval heritage. (AP Photo/Eric Risberg)

The Maritime Administration is the U.S. government's disposal agent for merchant-type vessels 1,500 gross tons or more and has custody of a fleet of over 115 obsolete ships owned by the Federal government that are available for disposal. These obsolete ships are located at the James River Reserve Fleet site in Virginia, the Suisun Bay Reserve Fleet site in California and the Beaumont Reserve Fleet site in Texas. Steady progress in the disposal of the obsolete ships must be maintained to minimize the risk to the surrounding environment due to the presence of hazardous materials on board the ships.

Early in 2007, conflicting Federal and state environmental laws and regulations caused

the Maritime Administrator to temporarily suspend ship disposals. The U.S. Coast Guard was requiring hull cleaning to reduce the risk of transferring potential invasive aquatic species prior to the movement of non-retention ships from one geographic area to another. However, the in-water hull



cleaning process led to concerns that metals contained in ship hull coatings might be released during the cleaning process. The Department shares public concern about the potential impact on the environment of hull cleaning and is committed to protecting the environment around the fleet sites.

The Maritime Administration and the Commonwealth of Virginia and the State of Texas recently agreed on a hull cleaning method and the ship disposal program has resumed in those states. The agency is still engaged in discussions with the State of California regarding their concerns with the hull cleaning process and potential solutions. Various enhanced hull cleaning options are being studied on how to better protect the environment during hull cleaning operations. If tests of the enhanced methods are successful, the agency will ask the State of California to endorse the method and allow the resumption of ship disposal activities in that state.

Despite these challenges, the Maritime Administration removed 20 obsolete ships from the three fleet sites, seven more than the 2007 target. All of the removals were the result of dismantling/recycling contracts with domestic ship disposal companies. Depending on the characteristics of each vessel and the capability of each contractor, it may take from several months to over a year to dismantle a ship once it has arrived at a disposal facility. In 2007, dismantling was completed on 20 ships, exceeding the target by five ships. These ships were removed from the fleet sites during the current and preceding fiscal years. The rate of dismantling is dependent on a number of external factors, including weather, contractor resource availability and the contractor's ability to quickly and properly arrange for disposal of hazardous materials. The Maritime Administration also entered into additional disposal contracts that will result in the dismantling/recycling of 23 additional ships in subsequent years, exceeding the target by 10 ships.

# **MOBILE SOURCE EMISSIONS**

The National Ambient Air Quality Standards (NAAQS) target six major pollutants as among the most serious airborne threats to human health. Transportation is a major contributor to some of the pollutants - particularly ozone, carbon monoxide and particulate matter. Motor vehicle emissions were reduced by 55 percent over the past two decades, in spite of a 48 percent increase in the number of registered vehicles and 82 percent increase in the volume of travel miles on our Nation's highways between 1980 and 2001. Areas that exceed, or have previously exceeded, certain NAAQS — designated as air quality non-attainment or maintenance areas - are required to meet transportation conformity requirements in the *Clean Air Act*. Failure to meet the conformity requirements will place an area in a conformity lapse, which creates a situation in which only limited types of Federally-funded infrastructure projects can proceed.

2007 Results — The number of areas in a conformity lapse in FY 2007 was zero, thus lowering the 12 month moving average to 0.0. This result exceeded the performance target. A number of changes to the conformity provisions were implemented in 2005 to streamline and provide more flexibility to the conformity process. In the implementation of the changes,

Performance Measure  12-month moving average of the number of areas in a transportation emissions conformity lapse.					
	2004	2005	2006	2007	
Target	6	6	6	6	
Actual	6.3	5.8	1.3	0.0 *	
* Preliminary estimate					
Associated FY 2007 Funding — \$ 2.76 billion					

the FHWA and the U.S. Environmental Protection Agency (EPA) conducted numerous workshops, training sessions, and other outreach activities to raise awareness of and to prepare State DOTs, air agencies, and Metropolitan Planning Organizations to meet the requirements. In addition, FHWA and EPA both issued guidance documents to ensure that the States transitioned smoothly to the new conformity requirements. State and local agencies took the initiative to coordinate the process well in advance of conformity determinations. Because of the advanced preparations, most of the locales that had been non-attainment and maintenance areas were able to meet the *Clean Air Act* goals, thus enabling projects to proceed.

**FY 2008 Performance Forecast** — The FHWA expects that the FY 2008 target of six or less areas in conformity lapse will be met.

## PIPELINE SPILLS OF HAZARDOUS LIQUIDS

One of the major consequences of pipeline incidents — particularly from hazardous liquid pipelines — can be adverse impacts to the environment. This is a function of the type, amount and location of commodity spilled.

The Pipeline and Hazardous Materials Safety Administration's (PHMSA) first priority is the continued safe operation and reliability of all pipelines. PHMSA has taken a proactive approach to protecting the environment by designing and implementing a strong risk-based systems approach to protect the safety, security, and reliability of the Nation's pipeline infrastructure.

PHMSA continues to significantly reduce the environmental impact of non-volatile hazardous liquid spills, reaching a six-year low in 2007.



**2007 Results** — PHMSA is projecting that it will better the 2007 performance target by as much as 50 percent.

In December 2000, PHMSA issued the hazardous liquid integrity management (IM) regulations, which will require operators to assess, evaluate, repair and validate the integrity of hazardous liquid pipelines that could affect High Consequence Areas (HCAs). The agency

Performance Measure Tons of hazardous liquid materials spilled per million ton-miles shipped by pipelines.					
	2004	2005	2006	2007	
Target	.0068	.0064	.0060	.0057	
Actual	.0081 (r)	.0085 (r)	.0034 (r)	.0028 *	
(r) Revised; * Preliminary estimate					
Associated FY 2007 Funding — \$ 29 million					

began collecting detailed IM related repair information in 2005 and now has two years of data. At the end of 2006, the total number of pipeline segment miles that could affect HCAs (including environmentally sensitive areas) was approximately 71,000 miles, of which about 35,000 miles were inspected in 2005 and 2006.

The IM strategy is a long-term program investment. The expected environmental benefits of the IM approach in terms of reduction in number and consequences of hazardous liquid accidents in HCAs should be even more apparent over time. Since the inception of the IM regulations, almost 4,000 conditions that needed immediate attention have been repaired or mitigated. In 2005 and 2006 alone, over 10,000 other conditions were repaired on a scheduled basis and 32,000 additional conditions were repaired beyond those required by the hazardous liquid IM regulations.

**FY 2008 Performance Forecast** — In 2008, PHMSA will begin reporting on a new environmental measure – hazardous liquid pipeline spills in high consequence areas. PHMSA expects to meet its targets for this measure.

# In-Depth Accomplishments to Prevent Hazardous Materials Spills

PHMSA recognizes the strategic importance of Alaska's oil and gas production and transportation systems to the Nation's energy supply; in FY 2007 the agency expanded Alaska operations to help address serious technical challenges associated with declining oil field production. The agency is working with other federal and state agencies to take a "system of systems" approach to integrate, strengthen and prioritize oversight activities of the Alaska oil and gas production and transportation system. Activities include: planning for the new Alaska Gas Pipeline project, signing a letter of intent with the Alaska Department of Natural Resources to coordinate risk assessment and oversight activities, working with Alaska's new Petroleum System Integrity Office to develop a detailed work plan to assess and review operators' quality assurance programs, and increasing our personnel in Alaska working with the Joint Pipeline Office on development of a unified plan for oversight of the Trans-Alaska Pipeline System infrastructure and operations.



A new oil transit pipeline runs across the tundra to a flow station at the Prudhoe Bay oil field on Alaska's North Slope Saturday, June 16, 2007. The line will replace the corroded pipeline that leaked and caused the nation's largest producing oil field to shutdown in 2006. Nearly one year after BP PLC shut down most of its operations because of leaks to a transit line, the company says new accountability and maintenance practices are in place and a \$250 million upgrade is on schedule for completion next year. (AP Photo/Al Grillo)

As a next step in the extension of IM requirements throughout pipeline systems, PHMSA issued a supplemental notice of proposed rulemaking for applying pipeline safety requirements, including integrity management, to rural low-stress lines. This action is consistent with past Congressional requirements and new requirements in the PIPES Act. The proposed rule is phase one of a two phase approach that will extend pipeline safety requirements to previously unregulated rural low-stress pipelines. The first phase applies to higher risk, larger diameter hazardous liquid lines in rural areas. The second phase will focus on all remaining unregulated rural low-stress pipelines.

PHMSA leverages its resources to focus on new research technologies to support energy reliability and independence. PHMSA will accelerate research to better understand and manage technical issues associated with transporting new alternative fuels. In August 2007, PHMSA issued a notice outlining its jurisdiction over the transportation of ethanol and other biofuels by pipeline and explaining that the agency is stepping up efforts to support the President's energy agenda by



eliminating barriers to the safe and reliable transportation of these materials. We are building the capability of first responders to address pipeline incidents involving alternative energy and other new emerging technologies.

## AIRCRAFT NOISE EXPOSURE

The FAA is working to increase the capacity of the national air transportation system to keep pace with demand for air travel. Public concern and sensitivity to aircraft noise around airports continues to grow even as more Americans value and depend on air transportation. Aircraft noise is an undesired by-product of mobility, and FAA acts to reduce the public's exposure to significant noise levels.

In the past decade, the phase-out of noisier commercial aircraft was principally responsible for the reduction in the number of people exposed to high levels of aircraft noise. Noise and land use compatibility projects, funded under the Airport Improvement Program (AIP), complemented aircraft source noise reduction. While the new international aircraft noise standard will continue the introduction of quieter aircraft into operations, this will be a gradual process. AIP-funded noise compatibility projects and noise abatement flight procedures will be the principal means employed by FAA to mitigate significant aircraft noise exposure in the near future.

2007 Results — DOT met the performance target. The target is calculated using a three year moving average from the base average year from 2000 to 2002. The FAA increased the noise exposure target after reviewing historical reductions and taking into account recent trends that remain well below the previous noise target. The significant reduction in noise exposure

Performance Measure						
Percent reduction in the number of people in the U.S. who are exposed to significant aircraft noise levels.						
2004	2005	2006	2007			
-2	-3	-4	-8			
-28	-29	-28 (r)	-27 #			
(r) Revised; # Projection from trends						
Associated FY 2007 Funding — \$ 455 million						
	ercent reduction in t exposed to s 2004 -2 -28 Projection from tren	ercent reduction in the number of peo exposed to significant aircraft  2004 2005 -2 -3 -28 -29 Projection from trends	ercent reduction in the number of people in the U.S. who exposed to significant aircraft noise levels.  2004 2005 2006  -2 -3 -4  -28 -29 -28 (r)  Projection from trends			

since the base year average 2000 to 2002 has been driven by air carrier fleet and operational changes that took place in the aftermath of September 11, 2001. It was expected that a return to more typical fleet compositions and a return to air traffic growth would narrow the "positive gap." However, the return of fleet composition and air traffic to pre 9/11 levels has not occurred at the pace expected. In addition to noise trends, the new noise target reflects the relocation of people away from areas of significant noise exposure through grant funding. The target is also influenced by market forces that drive changes in commercial aircraft fleets and operations.

**FY 2008 Performance Forecast** — DOT will meet the target in FY 2008.