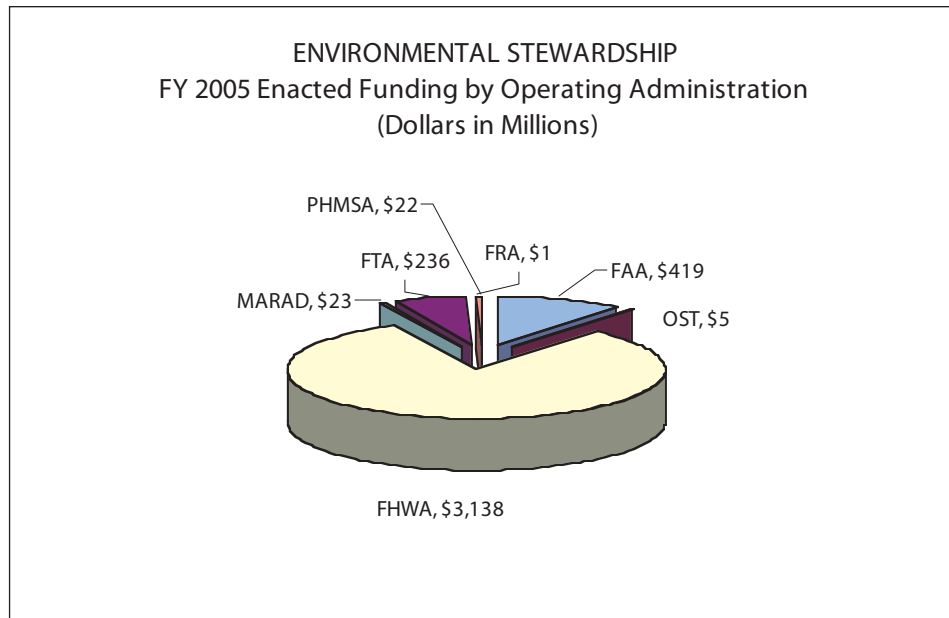




## ENVIRONMENTAL STEWARDSHIP STRATEGIC OBJECTIVE

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

- Ratio of wetlands replaced for every acre affected by Federal-aid highway projects.
- Percent DOT facilities characterized as No Further Remedial Action under the Superfund Amendments and Reauthorization Act.
- 12-month moving average number of area transportation emissions conformity lapses.
- Tons of hazardous liquid materials spilled per million ton-miles shipped by pipelines.
- Percent reduction in the number of people within the U.S. who are exposed to significant aircraft noise levels (revised measure).



## WETLAND PROTECTION AND RECOVERY

Wetlands are important natural ecosystems that filter pollutants and minimize potential floodwater damage. Before their value was fully recognized, many of the Nation's wetlands were adversely affected or lost in the development of transportation and other infrastructure facilities. In 1996, FHWA established a National policy on wetland protection that called for a net gain of wetlands in Federally assisted projects. The FHWA continued to coordinate wetlands programs and research initiatives with other Federal agencies including the Environmental Protection Agency (EPA) and the Department of the Interior. The FHWA, EPA, and the Army Corps of Engineers implemented guidance for the use of mitigation banks under the Clean Water Act permitting process, one of the first actions completed under the National Wetlands Mitigation Action Plan.

**2005 Results.** DOT met the performance target. Federal-aid projects nationwide annually impacted 745 acres of wetlands and provided 1,814 acres of compensatory mitigation; a ratio of 2.4 acres of compensatory wetland mitigation for every acre of impact.

Performance Measure				
Ratio of wetlands replaced for every acre affected by Federal-aid Highway projects.				
	2002	2003	2004	2005
Target	1.5	1.5	1.5	1.5
Actual	2.7	2.7	2.1	2.4

An Exemplary Ecosystem Initiative (EEI) is an action or measure that will help sustain or restore natural systems and their functions and values, using an ecosystem or landscape context. Examples 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 FHWA recognized eight new EEIs, exceeding the target of designating additional initiatives and bringing the total number that FHWA has designated thus far to twenty-three.

**FY 2006 Performance Forecast.** The FHWA expects to meet the FY 2006 target for wetlands mitigation and exemplary ecosystems.

## DOT FACILITY CLEANUP

DOT has a special responsibility to ensure that its own facilities are compliant with environmental laws and regulations. The Department does this through restoration, compliance, and pollution prevention. Restoration activities involve identifying, investigating, and cleaning up contaminated sites. Compliance includes the operation of facilities, equipment, and vessels in accordance with environmental requirements. The Department reduces the possibility of future cleanup activities by avoiding the generation of pollutants in its operations and facilities.

MARAD is the Government's disposal agent for merchant-type vessels weighing 1,500 gross tons or more, and is required by law to dispose of all obsolete ships in the National Defense Reserve Fleet by the end of FY 2006. Due to the presence of hazardous substances such as asbestos and solid and liquid polychlorinated biphenyls (PCBs) and concerns raised by the EPA about the export of PCBs, sales for overseas disposal were halted in 1995. Additional ships will be added to the disposal inventory as other merchant type Federal vessels become obsolete.



**2005 Results.** DOT did not meet the target. The facility cleanup complied with the Superfund Amendments and Reauthorization Act (SARA) process and with the National Oil and Hazardous Substances Pollution Contingency Plan. Working with States, local governments, and the EPA, DOT used a “worst first” prioritization system to attack the overall problem presented by DOT facilities where significant pollution problems present themselves.

<b>Performance Measure</b>				
Percent DOT facilities characterized as No Further Remedial Action under the Superfund Admndments and Reauthorization Act.				
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Target	91	92	92	93
Actual	91	94	93	92

FAA continued work under State agreements at several facilities and at the six facilities which EPA has identified as needing further evaluation, including the Omaha Air Force Station in Nebraska, which was added to the docket in FY 2005. To reduce the likelihood of petroleum contamination from mission critical equipment, FAA meets current EPA requirements for fuel storage tanks; continues to replace outdated fuel storage tanks at the end of their normal life cycle to prevent leakage; tests in-service tanks; and will investigate, remove or clean tanks at decommissioned facilities.

**FY 2006 Performance Forecast.** DOT expects to meet the FY 2006 target.

## **SHIP DISPOSAL**



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During FY 2005, MARAD removed 18 obsolete ships from three National Defense Reserve Fleet sites that posed potential environmental hazards. This included 16 high and moderate priority vessels. 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. Dismantling was completed on 13 ships during 2005; two less than anticipated. These ships were removed from the fleet sites during FY 2004 and FY 2005.

Dismantling is dependent on a number of external factors, including weather and the contractor’s ability to quickly and properly arrange for disposal of hazardous materials. During FY 2005, MARAD also entered into additional disposal contracts that will result in the dismantling/recycling of 20 additional ships in subsequent years, five more than the target.

As a result of MARAD’s ‘worst first’ policy on ship disposals, where the ships in the worst condition are given removal priority, all but five of MARAD’s high priority ships have now been awarded in disposal contracts. The inventory of remaining moderate priority obsolete ships poses less of a risk to the environment, and the remaining low priority vessels pose no more of a risk than fully operational ships. MARAD can work pro-actively to dispose of the remaining ships before the situation becomes critical.



## 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. About two-thirds of transportation-related emissions come from on-road motor vehicles. The quality of our air is a public good, and the cost of these pollutants is not captured in the marketplace. For this reason, the Government works to mitigate this negative impact.

Areas throughout the United States with a non-attainment or maintenance designation are required to meet transportation conformity requirements in the Clean Air Act. Transportation conformity ensures that emissions from planned transportation activities are consistent with clean air goals of the area, and will not create new violations of the NAAQS, increase the frequency or severity of existing violations, or delay the attainment of the NAAQS in designated non-attainment or maintenance areas.



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Following the release of the final Conformity Rule Amendments to address the new 8-hour ozone and particulate matter (PM 2.5) standards, Federal Highway Administration (FHWA) has worked with EPA and Federal Transit Administration (FTA) on several companion guidance documents to clarify the new conformity requirements.

FHWA continued to work with the EPA and FTA to finalize an additional rule to specifically address conformity hot-spot requirements of the new PM 2.5 standard. A final rule is expected in March 2006. FHWA also worked closely with State and local agencies as well as our Federal partners to implement of the transportation conformity regulations, especially in the areas not attaining the new 8-hour ozone and PM 2.5 standards.

**2005 Results.** The performance target was met in FY 2005.

**FY 2006 Performance Forecast.** DOT expects to meet the performance target in FY 2006. While there are multiple causes for a transportation lapse, such as new conformity requirements for the new fine particulate matter (PM 2.5) air quality standard, the FHWA will continue to monitor the number of lapses as an early indicator of progress contributing to emissions reductions.

Performance Measure				
12-month moving average number of area transportation emissions conformity lapses.				
	2002	2003	2004	2005
Target	6	6	6	6
Actual	6	6	6	6





## PIPELINE HAZMAT SPILLS

PHMSA is expanding its damage prevention and integrity management program initiatives to diminish risks of environmental harm from pipeline spills. Because of the volume of liquid materials moved by pipelines, any spill into the environment is potentially a significant one.

PHMSA follows several strategies to reduce the amount of hazardous liquid materials spilled per ton-miles shipped by pipeline:

- Advance the Integrity Management Program concepts throughout the entire system;
- Advance damage prevention;
- Advance public education—one initiative is the recently established nationwide three-digit telephone number for one-call centers to provide timely and consistent information on the location of underground utilities;
- Invest in technologies to better detect defects and strengthen materials for repair; and
- Strengthen PHMSA's enforcement program through improved Federal/State partnerships.

PHMSA's long-term strategies for reducing environmental damage, property damage and economic disruption resulting from oil spills is essentially the same as it is for gas pipelines. The agency requires pipeline operators to have the ability to clean up significant spills (those that involve either a death or injury, at least \$50,000 of property damage, or more than 50 barrels of spillage). PHMSA implements the Oil Pollution Act of 1990 provisions for onshore oil pipelines by making pipeline oil spills less likely, diminishing the spills' threats to people and the environment, and strengthening the response to spills in accordance existing regulation. PHMSA oversees this requirement by:

- reviewing and approving operators' spill response plans for onshore oil pipelines;
- overseeing field and table-top exercises to strengthen operator readiness to respond to oil spills from pipelines;
- monitoring major spills and clean-up efforts; and
- identifying and providing access to information on the location of unusually sensitive ecological areas.

**2005 Results.** Although the downward trend continues, based on the preliminary data for FY 2005, PHMSA expects to miss the FY 2005 performance target. Performance in this area has not been consistent; PHMSA has met its target in some years and missed it in others. The agency continues to re-evaluate the targets based on the trend line.

The calculation is influenced by the volume of shipments in each year of net tons lost as a percentage of total volume shipped. Therefore, as total volume shipped decreased since 2000 (the baseline year) due to a slow down in the economy, the resulting net loss calculation is magnified.

<b>Performance Measure</b>				
Tons of hazardous liquid materials spilled per million ton-miles shipped by pipelines.				
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Target	.0077	.0073	.0068	.0064
Actual	.0057 (r)	.0071 (r)	.0102	.0097 *
(r) Revised; * Preliminary estimate				



However, gross volume spills for all hazardous liquid is following a decreasing trend over time. The decrease in total volume could be a function of PHMSA-required pressure reduction on many liquid pipelines to provide a margin of safety. The preliminary analysis of accident reports received to date indicates that the accidents frequencies in four States, Texas, Louisiana, Alabama, and Mississippi due to natural force damages during Hurricanes Katrina and Rita are three times higher than the past three year's experience with the number of incidents in those States. This may increase the preliminary estimates of tons of hazardous liquid spilled per million ton-miles for 2005 significantly.



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Prior to the Pipeline Safety Improvement Act of 2002, PHMSA began to improve environmental protection through several initiatives. For example, PHMSA adopted the Hazardous Liquid Integrity Management Program (IMP) to assess, evaluate, and repair the integrity of hazardous liquid pipeline segments that, in the event of a leak or failure, could affect populated areas, areas unusually sensitive to environmental damage and commercially navigable waterways. The IMP regulations which were adopted for all hazardous liquid operators during 2001–2003, resulting in programs with a 7-year test cycle. Operations are just past the midpoint. The programs have resulted in assessment of about 50% of the regulated pipelines in high consequence areas (HCAs). The IMP approach is a risk-based analysis that targets potentially high risk incidents by evaluating the integrity of the pipeline. The pipeline is evaluated for the potential for all threats, potential impacts of a release to an HCA (e.g., drinking water intake) and operators are required to prevent and mitigate risks to pipeline integrity. The expected safety benefits of the IMP approach in terms of reduction in number and consequences of hazardous liquid accidents in HCAs should be more apparent over time. Preliminary information indicates that over 20,000 defects have been found and repaired due to IMP.

**FY 2006 Performance Forecast.** Based on the decrease in the volume shipped, PHMSA expects that the FY 2006 target of 0.0060 tons of liquid materials spilled per million ton-miles shipped by pipelines will not be met.

## AIRCRAFT NOISE EXPOSURE

Public concern and sensitivity to aircraft noise around airports is high. In recent years, noise complaints have increased even while quieter aircraft technology has been introduced. Aircraft noise is an undesired by-product of mobility, and the Government acts to reduce the public's exposure to unreasonable 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, although its efforts were complemented by noise compatibility projects funded under the Airport Improvement Program (AIP). While the new international aircraft noise standard will encourage the introduction of quieter aircraft into operations, AIP-funded noise compatibility projects will be the principal means employed by the Government to mitigate significant aircraft noise exposure in the near future.



**2005 Results.** Based on projected trend analysis, DOT met the performance target. DOT pursues a program of aircraft noise control in cooperation with the aviation community through development and adoption of quieter aircraft, soundproofing and buyouts of buildings near airports, operational flight control measures such as preferential runways, and land-use planning strategies.

<b>Performance Measure</b>				
Percent reduction in the number of people in the U.S. who are expected to significant aircraft noise levels.				
	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Target	N/A	-1%	-2%	-3%
Actual	N/A	-15%	-27% (r)	-27% #
(r) Revised; # Projection from trends				

The significant performance improvement over the targeted goals in noise reduction grew out of a confluence of a number of external factors: the economic downturn, the long-term impact of the events of September 11th on the industry, and the severe acute respiratory syndrome (SARS) outbreak. These factors produced a dramatic downturn in operations as well as a large-scale premature retirement of older Stage Three aircraft (B-727s, DC-9s, and MD-80s). This combination of lower operations and the rapid reduction of the average age of the fleets operating produced the dramatic improvements in the noise exposure environment.

Operational levels began to recover in 2004 and continue to recover in 2005. Taking into account the Next Generation Air Transportation System goal of increasing capacity threefold, and the related rise in aviation noise that will follow, the dramatic level of improvements witnessed over the last two years will not persist.

**Note.** FAA improved its noise exposure model and redefined the measure. The rate of change in noise exposure is more programmatically useful than the number of people affected.

**FY 2006 Performance Forecast.** DOT will meet the target in FY 2006.

