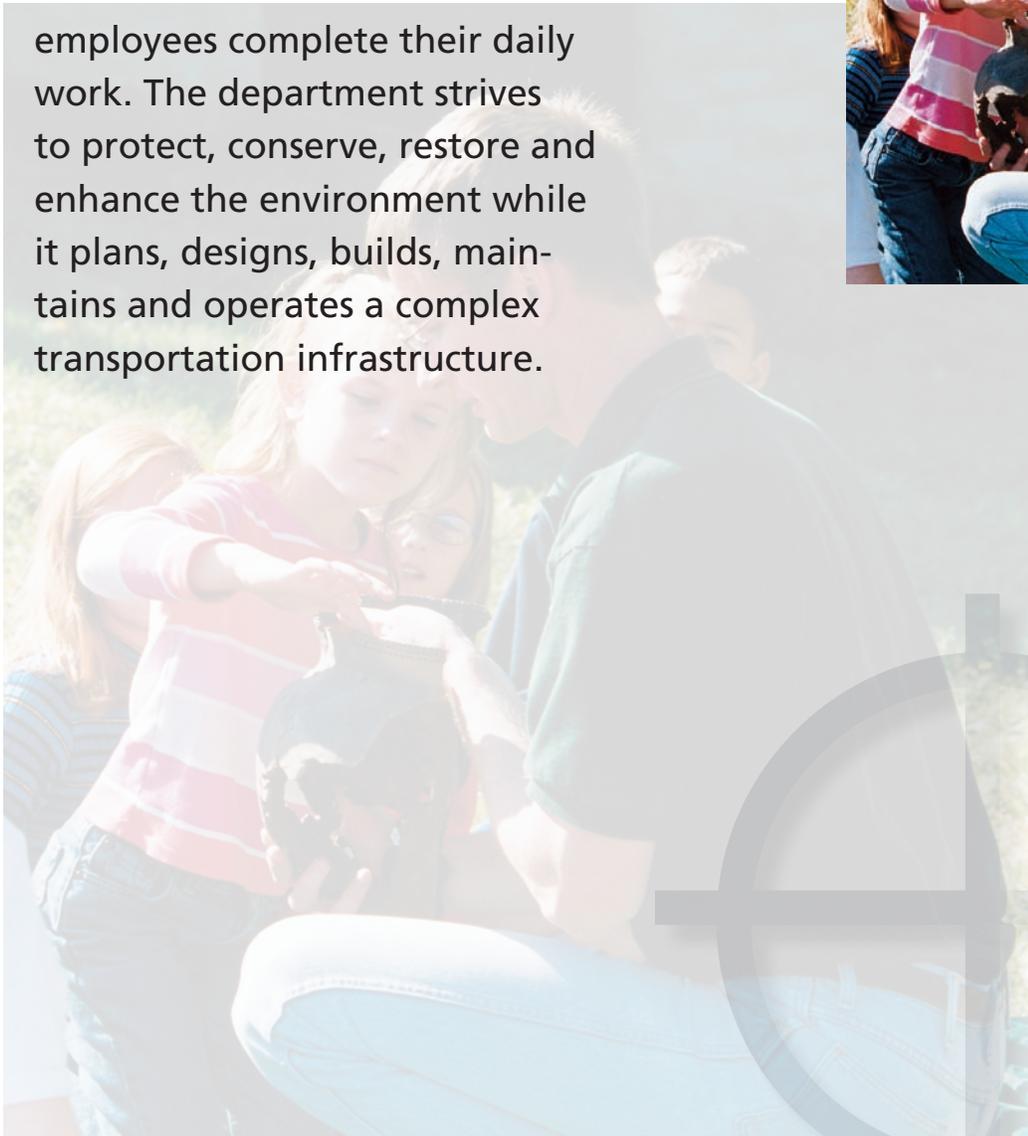

Environmentally Responsible

*Tangible Result Driver – Dave Nichols,
Director of Program Delivery*

MoDOT takes great pride in being a good steward of the environment, both in the construction and operation of Missouri's transportation system and in the manner in which its employees complete their daily work. The department strives to protect, conserve, restore and enhance the environment while it plans, designs, builds, maintains and operates a complex transportation infrastructure.



Environmentally Responsible

Percent of projects completed without environmental violation

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Kathy Harvey, State Design Engineer

Purpose of the Measure:

This measure tracks environmental violations. MoDOT projects must comply with several environmental laws and regulations. To be in compliance, MoDOT makes commitments throughout the project development process that must be carried forward during construction and maintenance. In addition, the various permits obtained for projects also contain specific requirements for compliance. MoDOT must also comply with the environmental laws and regulations as it conducts its daily work in all areas of the organization.

If a violation is noted, it can result in either a Letter of Warning (LOW) or a Notice of Violation (NOV) to MoDOT. Letters of Warning can also be received as simply that, a warning to MoDOT of a special circumstance to be aware of, or for a situation that needs to be monitored so that a violation does not occur. For that reason, LOWs will never be eliminated, but should be kept to a minimum. However, it is unacceptable to the department to have a NOV.

Measurement and Data Collection:

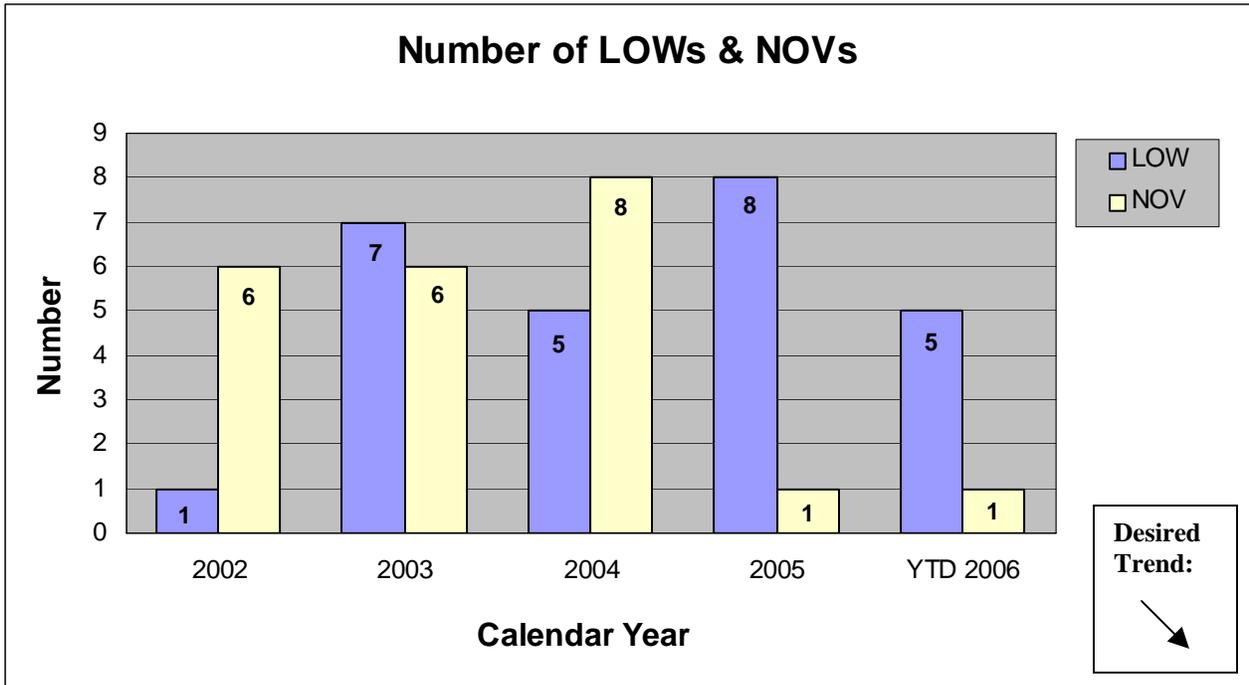
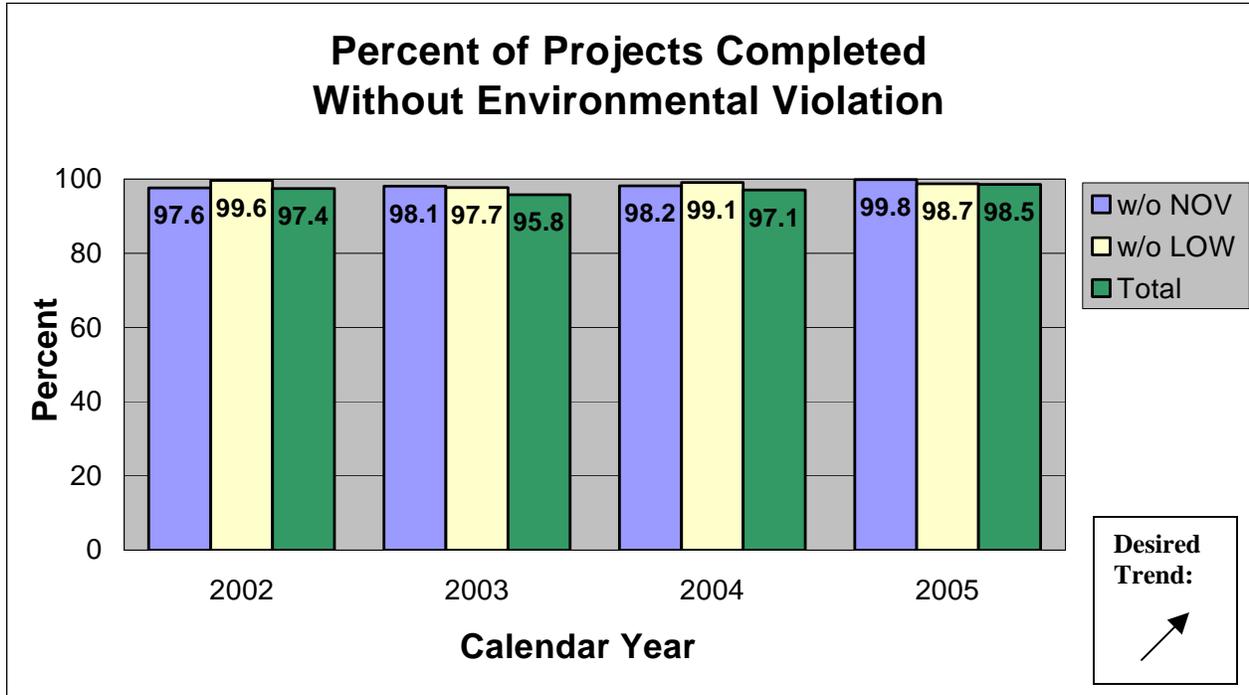
Both LOWs and NOVs are written correspondence to MoDOT from regulatory agencies, which are tracked in a MoDOT database by location or project number, as appropriate. Where tracked by project, the violations received may span several years. The first chart is based on a calendar year of construction projects reported to be completed during that year and the number of violations received on those projects over the life of the project. The second chart is a report by calendar year of the LOWs and NOVs received by the department for any activity.

Improvement Status:

The first graph shows a relatively level trend line for the past four years, while the second graph shows a significant decline in the total number of NOVs received in 2005, and that positive trend is continuing in 2006.

For the first three quarters of 2006, MoDOT has received one NOV and five LOWs. The NOV was for a contaminant discharge at a maintenance facility. Two of the LOWs were for failing to submit manifest summary reports in a timely manner; one was for a maintenance lot issue; one was for discharging contaminants from a construction project and the final one was for issues associated with hazardous waste labeling and storage.

In order to reduce the number of warnings associated with maintenance lots, the department conducted an inspection of each maintenance lot. The results of these inspections have been summarized in a report presented to leadership of the various impacted divisions. Reports have also been provided to and discussed with each district. Each district is reviewing the information and if appropriate, developing action plans to address any concerns that were noted.



Note: There is no benchmark data presented with this measure. MoDOT has a zero-tolerance policy towards NOVs, but recognizes LOWs will never be eliminated due to their nature. Therefore, regardless of what other states are doing, MoDOTs desired results are zero NOVs.

Environmentally Responsible

Number of projects MoDOT protects sensitive species or restores habitat

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Gayle Unruh, Environmental & Historic Preservation Manager

Purpose of the Measure:

Missouri is home to many rare species of plants and animals, some of which are on the federal endangered species list. The Endangered Species Act of 1973 prohibits harm or harassment of these species. Avoiding or minimizing harm to these species and protecting or restoring their habitat is a fundamental obligation of this organization. Avoidance and/or protection are the first goals of our efforts, but under circumstances where avoidance cannot be achieved, restoration of habitat is a minimum acceptable result.

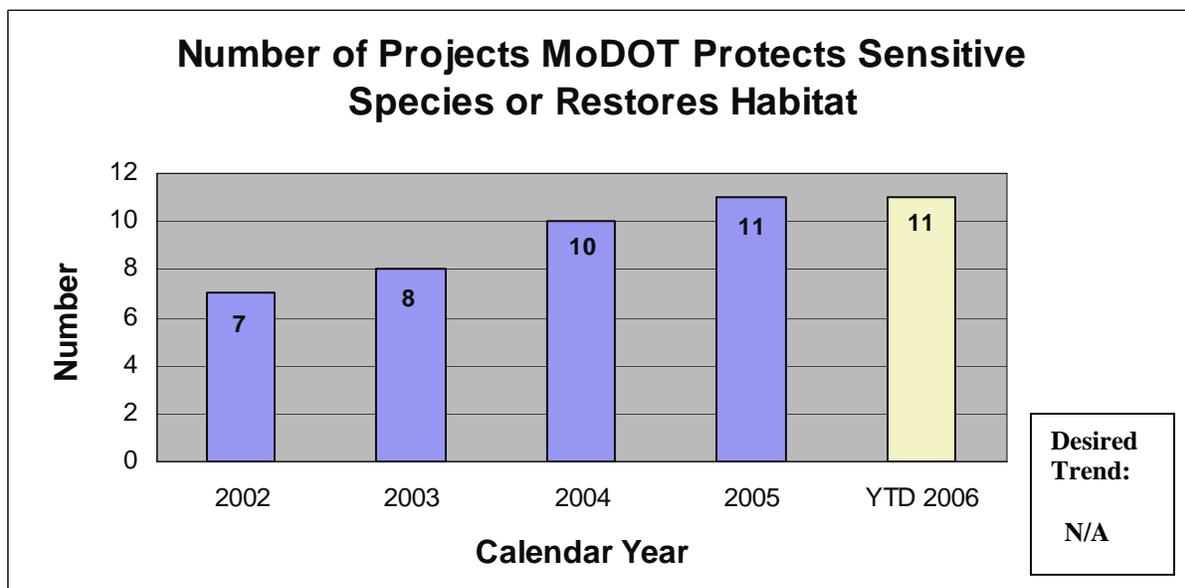
Measurement and Data Collection:

This measure is tracked annually by calendar year. On all MoDOT projects, the department investigates and informs the U.S. Fish and Wildlife Service of any activity in the vicinity of a known threatened or endangered species or critical habitat. Through this consultation with them, primarily through letters, MoDOT has the data to report on this measure. Because this measure focuses on projects that protect or restore sensitive habitats that could not initially be avoided, many MoDOT projects are not included in this data.

Improvement Status:

There is no desired trend with this measure; the number reported will fluctuate depending on the size of MoDOT's construction program each year, type of projects being constructed, location and the ability to make adjustments to avoid impacts on sensitive species or their habitat.

During the first half of 2006, there were 11 projects where MoDOT protected or restored sensitive species or habitat. These included the gray bat (three projects), Tumbling Creek cave snail, Indiana bat (three projects), pallid sturgeon, peregrine falcon, Niangua darter (two projects), Hine's emerald dragonfly and protected mussels.



Environmentally Responsible

Ratio of acres of wetlands created compared to the number of acres of wetlands impacted

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Gayle Unruh, Environmental & Historic Preservation Manager

Purpose of the Measure:

Wetlands are a valuable resource in Missouri, having beneficial functions such as wildlife habitat, flood storage and water quality improvement. In addition to these benefits, it is required in the Clean Water Act that impacts to wetlands are avoided, minimized or that wetlands are recreated when a wetland is destroyed during a transportation project. The national goal set by the FHWA for recreating wetland is to construct 1.5 acres of wetland for every 1.0 acre of wetland impacted. Recreating wetlands at this ratio helps to offset the lost beneficial functions during the time it takes for a wetland to develop. This measure helps ensure that MoDOT is doing its part to maintain wetlands in Missouri.

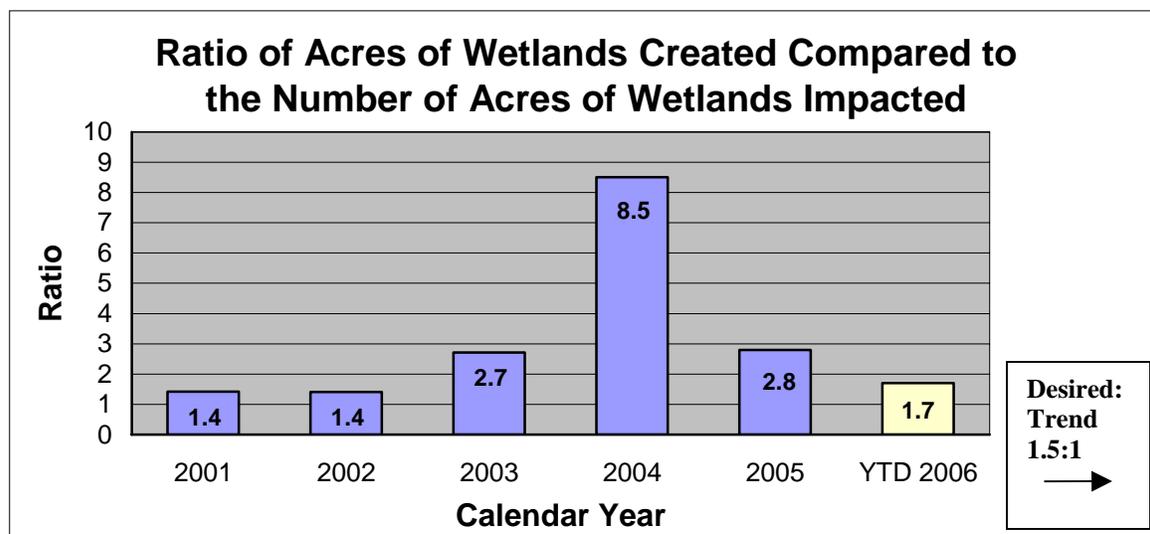
Measurement and Data Collection:

Data for this measure is calculated by comparing acres of project impacts taken from Clean Water Act permits to acres of wetland constructed, as shown in roadway design plans or by calculating the actual wetland areas recreated by MoDOT, or wetland mitigation purchased from a commercial wetland bank. Impacts may occur in a different year from the mitigation, so for the purposes of this measure, the timeframe for the reporting is when the mitigation construction is complete based on a calendar year.

Since this measure is also tracked by FHWA, MoDOT contacted states that are successful at meeting the 1.5 to 1 ratio. Most of the states queried said that the biggest factor in meeting the ratio is in the use of wetland mitigation banks. They had greater control over achieving their target ratios and more ecologically successful wetland mitigation. MoDOT has a statewide umbrella wetland mitigation banking agreement. Two proposed wetland banks are in the review stages with the regulating agencies.

Improvement Status:

So far in 2006, MoDOT moved towards the desired ratio by replacing wetlands at a rate of 1.7 to 1. Although this represents only two mitigation projects built this year, statewide training targeting the interpretation and attention paid to wetland development plans was conducted with construction inspectors and resident engineers to help achieve this improvement over previous years. MoDOT is placing all mitigation on as-built plans to reduce mitigation for encroachments on wetland mitigation projects.



Environmentally Responsible

Percent of air quality days that meet Environmental Protection Agency standards by metropolitan area

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Eric Curtit, Long-Range Transportation Planning Coordinator

Purpose of the Measure:

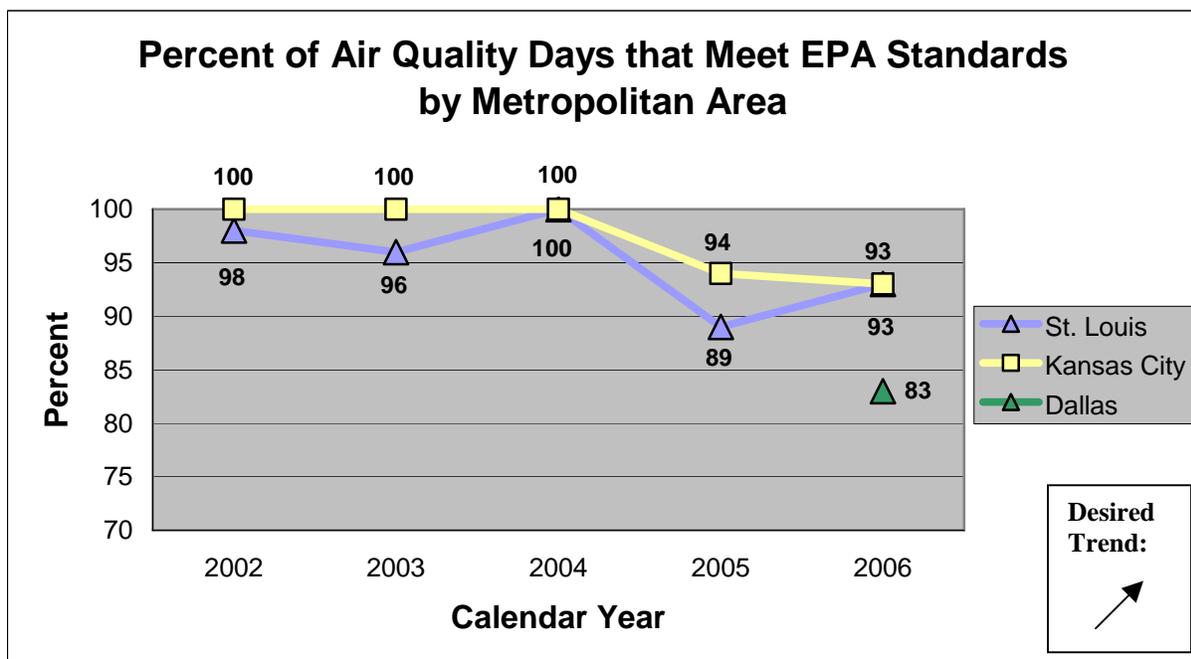
This measure tracks MoDOT’s role in improving the air quality of Missouri’s metro areas. The Environmental Protection Agency approves state plans to improve air quality. MoDOT makes every effort to design and build roads that improve air quality in affected areas.

Measurement and Data Collection:

EPA establishes air quality standards including ozone for the United States. The ground level ozone standard affects Missouri. Ozone readings are collected in Kansas City and St. Louis during the ozone season – April through October. The data contained in the table below reflects the available percentage of days, by metro area, that met the EPA’s ground-level ozone standard. The data for Missouri’s 2006 ozone season is now included. Beginning in 2006, MoDOT will compare ozone exceedances to the Dallas, Texas, metropolitan area. Generally, Dallas is being compared to Missouri cities because of its similar distance to other cities that affect its air quality. Dallas also has relatively the same kind of pollutants.

Improvement Status:

MoDOT’s efforts, coupled with milder than normal weather in 2004, contributed to 100 percent positive air quality days as measured by EPA standards. Changes to more strict EPA standards and warmer than normal weather during the 2005 ozone season contributed to a reduction in the percentage of positive air quality days. MoDOT continues to serve on the Air Quality Forum Committee in Kansas City and the Air Quality Advisory Committee in St. Louis. MoDOT staff attends monthly meetings to review these committees’ programs and ensure that both regions continually work to improve the air quality for Missouri citizens. MoDOT is committed to improving the region's air quality through modifying daily work-related operations, modifying employees’ actions, education, providing information to the public, being a leader in air quality improvements, managing congestion to reduce emissions, providing alternative choices for commuters, and promoting the use of environmentally friendly fuels and vehicles.



Environmentally Responsible

Percent of alternative fuel consumed

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Dave DeWitt, Deputy Administrative Officer

Purpose of the Measure:

This measure tracks the use of alternative fuels. It shows MoDOT's contribution toward environmental responsibility and conservation of resources.

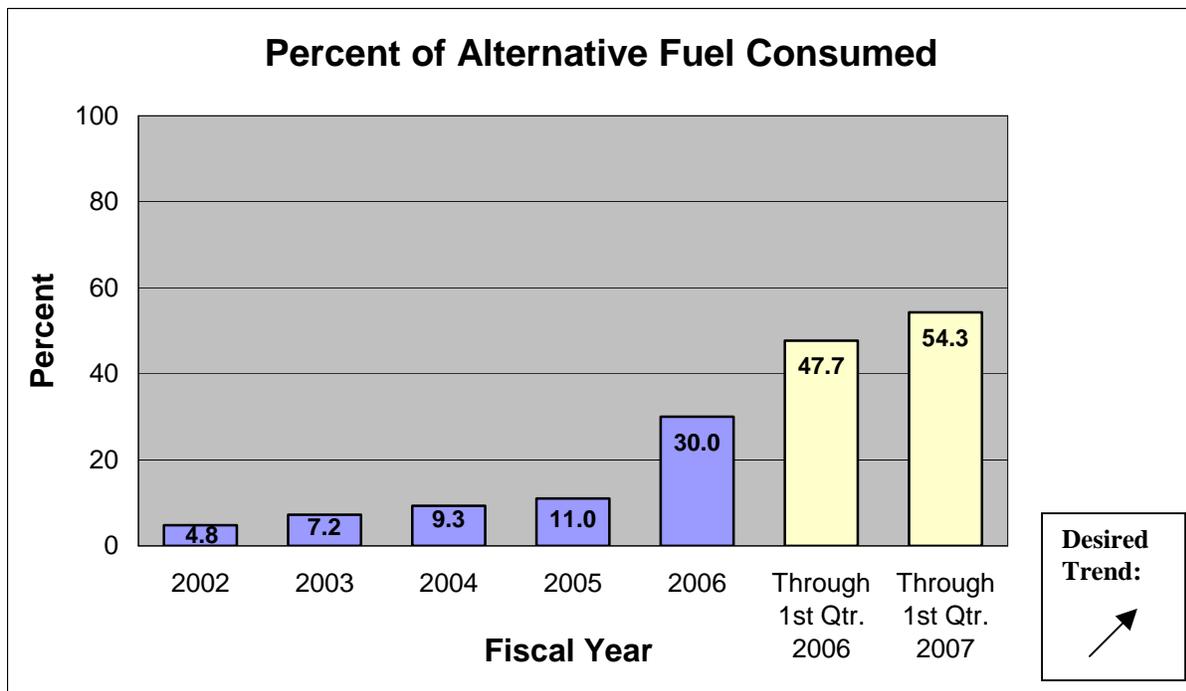
Measurement and Data Collection:

Alternative fuel is E-85 and biodiesel. When a user pumps fuel into a MoDOT vehicle or piece of equipment, that usage by gallon and by fuel type is captured in the SAM II system. Reports are generated to extract the number of gallons used from that system.

Improvement Status:

There was an increase in the usage of alternative fuels in the first quarter of FY 2007. The percent of alternative fuel consumed was 54.3 percent during the first quarter compared to 47.7 percent during the first quarter of FY 2006. The use of E-85 has increased by more than 57 percent for the same period of FY 2007. The increase is due to the addition of a new E-85 tank in District 6. There have been over 1,800 gallons of E-85 used at this site in the first quarter of FY 2007. The usage of biodiesel for the first quarter of FY 2007 is also up to 87.9 percent of total diesel compared to 78.3 percent the first quarter of FY2006. The increase is most evident in districts 6 and 9, which have had availability issues in the past. The first quarter typically has the highest usage of alternative fuel. There will be a decrease in the remaining quarters due to discontinuing the use of biodiesel during the winter months from Nov. 1 through March 31.

The department currently operates three E-85 bulk fuel stations in Districts 1, 6 and the Central Office. The District 7 tank is operational; however, E-85 is currently not available. Installation of the E-85 tank in District 4 will be complete by the end of November.



Environmentally Responsible

Number of historic resources avoided or protected as compared to those mitigated

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Bob Reeder, Historic Preservation Coordinator

Purpose of the Measure:

Federal historic preservation laws relating to federally-funded projects, gaining public and agency support for particular projects, and general environmental stewardship require MoDOT to avoid, minimize or mitigate project impacts to historic buildings and bridges whenever feasible. Compiling information about project impacts to important cultural resources provides a measure of MoDOT’s success at avoiding, protecting or mitigating project impacts to important cultural resources.

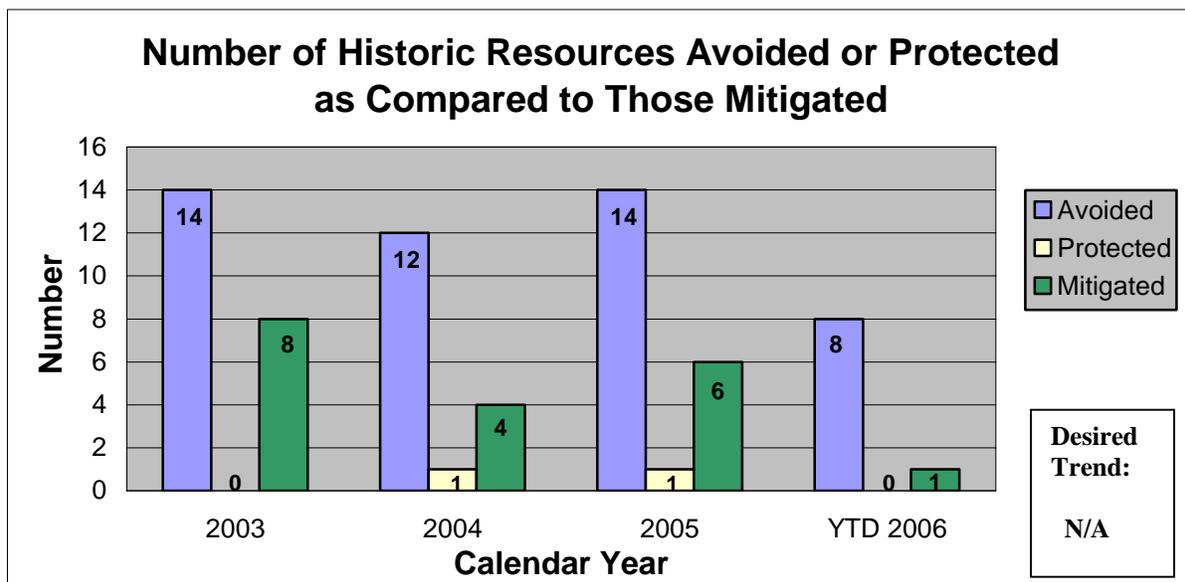
Measurement and Data Collection:

Data collection begins at the approved Conceptual Plans stage for projects. As project design plans and right of way plans are prepared by the district, department staff track the number of historic resources in project footprints and the number of resources that can be avoided or protected by MoDOT revising the design of a project versus the number of resources MoDOT can not avoid and must be mitigated. The data include only historic resources identified as potentially affected by projects after the conceptual plan stage. The data do not include historic resources avoided during early project planning or those avoided during consideration of different alignments during NEPA studies.

Improvement Status:

Early project design was able to avoid impacts to all but one historic property. Of the nine historic properties identified at the conceptual plan stage as being impacted by projects, MoDOT was able to redesign the project in the final stages to avoid impacts to eight of the resources. The only significant historic resource that could not be avoided was a historic house that had project impacts mitigated through the preparation of detailed photographic and historical documentation.

This measure has no overall desired trend. For any year, data for the measure will vary due to the number of projects in the MoDOT program and the specific nature of those projects. However, the overall effectiveness of MoDOT’s historic preservation efforts is reflected by all of MoDOT’s activities resulting in the required mitigation of project impacts to only one historic resource during the first three quarters of 2006.



Environmentally Responsible

Number of tons of recycled/waste materials used in construction projects

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Joe Schroer, Field Materials Engineer

Purpose of the Measure:

This measure tracks MoDOT's efforts to be environmentally conscious while being fiscally responsible through the use of recycled/waste material when applicable.

Measurement and Data Collection:

The number of tons of recycled/waste material used in construction projects is measured through MoDOT's construction management database which tracks material incorporated into projects. Data is collected on an annual basis due to the seasonal nature of the construction.

Improvement Status:

The use of recycled/waste materials will double over that reported for last year. Completion of the Smooth Roads Initiative before the end of this year has driven a large portion of the increased use in hot mix asphalt (HMA.) Specification changes, industry initiatives and promoting the use of some recycled products has resulted in 14 percent of all HMA placed being recycled/waste materials. A significant factor contributing to the increased use of recycled asphalt pavement (RAP), which accounts for half of the total recycled material, is the escalation of liquid asphalt prices. Use of RAP in mixtures rose along with the price of asphalt. Only one asphalt contractor is not currently using RAP in its mixtures.

Ground tire rubber (GTR) became another recycled material added to the list of materials counted. Three projects consumed 425 tons of GTR; the equivalent of over 53,000 passenger car tires. MoDOT is currently examining the performance of mixtures containing GTR and the best way to incorporate GTR into the asphalt mixtures.

The increased use of recycled materials in concrete pavements is due to specification changes allowing greater amounts of ground granulated blast furnace slag and fly ash.



(This page is intentionally left blank for duplexing purposes)