

Percent of projects completed without environmental violation-10a

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 never will be eliminated but should be kept to a minimum. However, it is unacceptable to the department to have an NOV.

Measurement and Data Collection:

Both LOWs and NOVs are written correspondence to MoDOT or MoDOT's contractors from regulatory agencies, which are tracked in a MoDOT database by location or project number, as appropriate. Where tracked by project, the project with 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 and the data is updated quarterly.

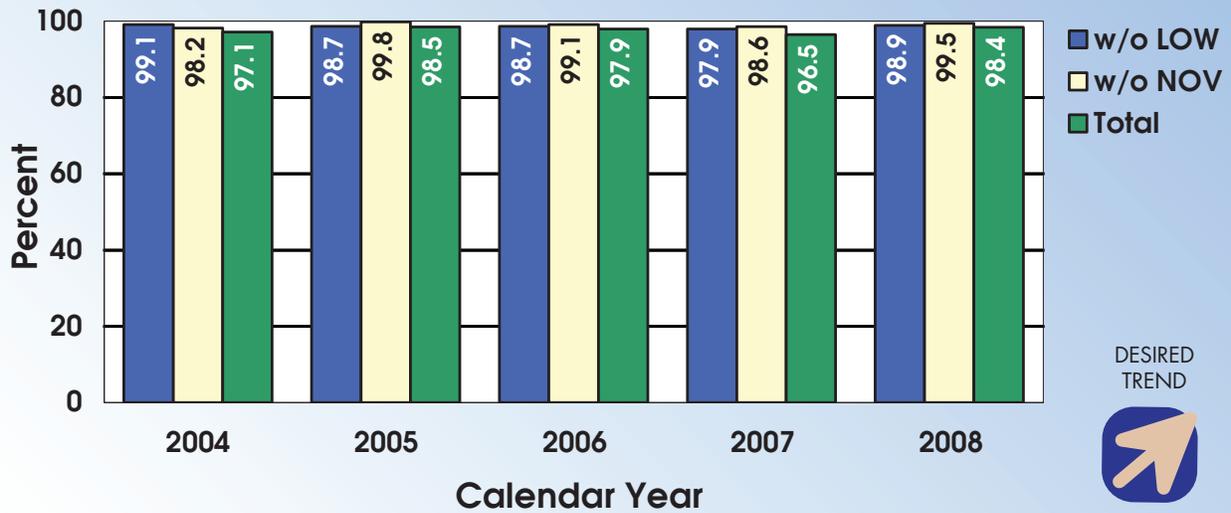
Improvement Status:

The percentage of projects completed without environmental violation shows a relatively level trend line for the past five years. In 2008, MoDOT received two NOVs and four LOWs, significantly reducing the number of both NOVs and LOWs from the previous two years.

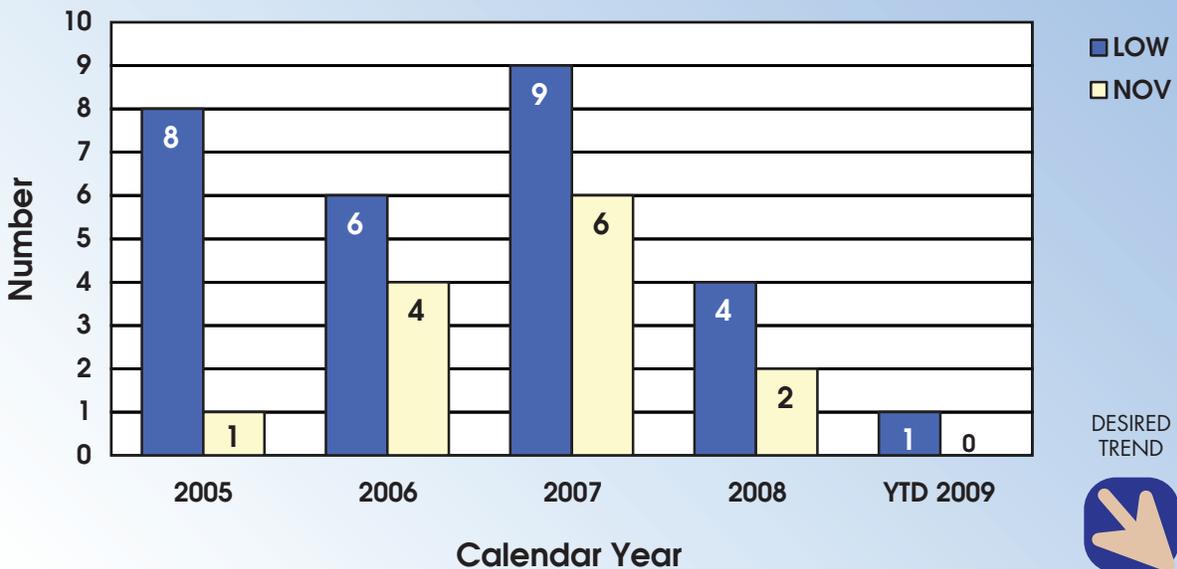
- First quarter 2009 – MoDOT received one LOW and zero NOVs. The LOW was for discharge concerns at a MoDOT salt storage facility.



Percent of Projects Completed without Environmental Violation



Number of LOWs & NOVs



Note: There is no benchmark data presented with this measure. MoDOT has a zero-tolerance policy toward NOV's, but recognizes LOWs will never be eliminated due to their nature. Therefore, regardless of what other states are doing, MoDOT's desired results are zero NOV's, because NOV's are usually violations of law and state statute.

Number of projects MoDOT protects sensitive species or restores habitat-10b

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 MoDOT's efforts, but in circumstances where avoidance cannot be achieved, restoration of habitat is a minimum acceptable result.

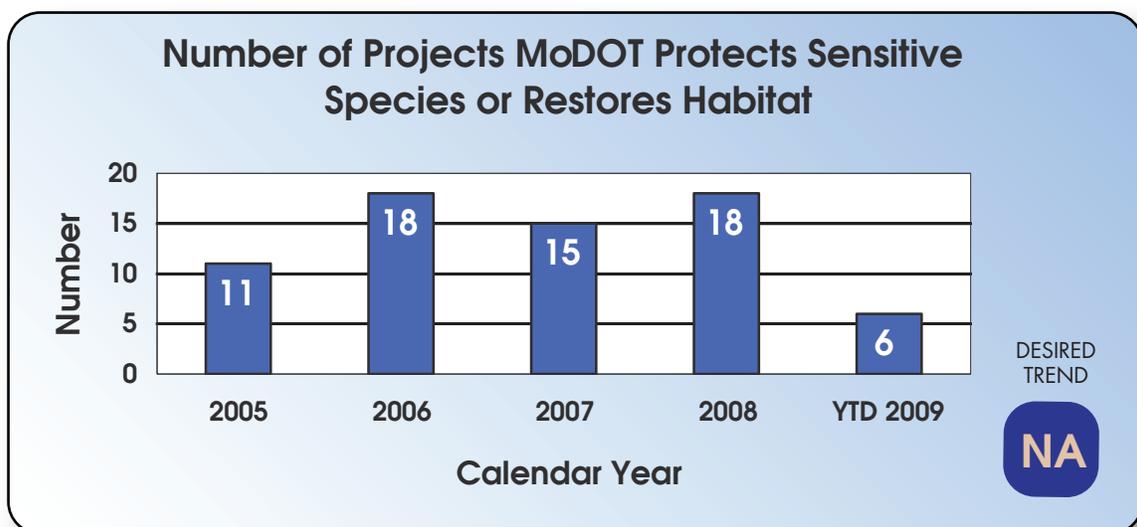
Measurement and Data Collection:

On all MoDOT projects, the department investigates and informs the U.S. Fish and Wildlife Service (USFWS) of any activity in the vicinity of a known threatened or endangered species or critical habitat. Through consultation with USFWS, 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, most MoDOT projects are not included in this data. This measure is tracked by calendar year with quarterly

updates. Annual data are finalized and shown in the January Tracker. 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. There are occasionally more than one species on a project.

Improvement Status:

MoDOT has protected sensitive species or restored their habitat on six projects in the first quarter of this calendar year. These species and habitats include the eastern hellbender (one project) and the bird nests on bridges (five projects). Under the Migratory Bird Treaty Act, birds along with their nests are protected from being destroyed or harassed. In cases where colonies of swallows build their nests on MoDOT's bridges, maintenance work such as paint blasting and repainting will be done at times outside of the nesting season.



Ratio of acres of wetlands created compared to the number of acres of wetlands impacted-10c

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.

Measurement and Data Collection:

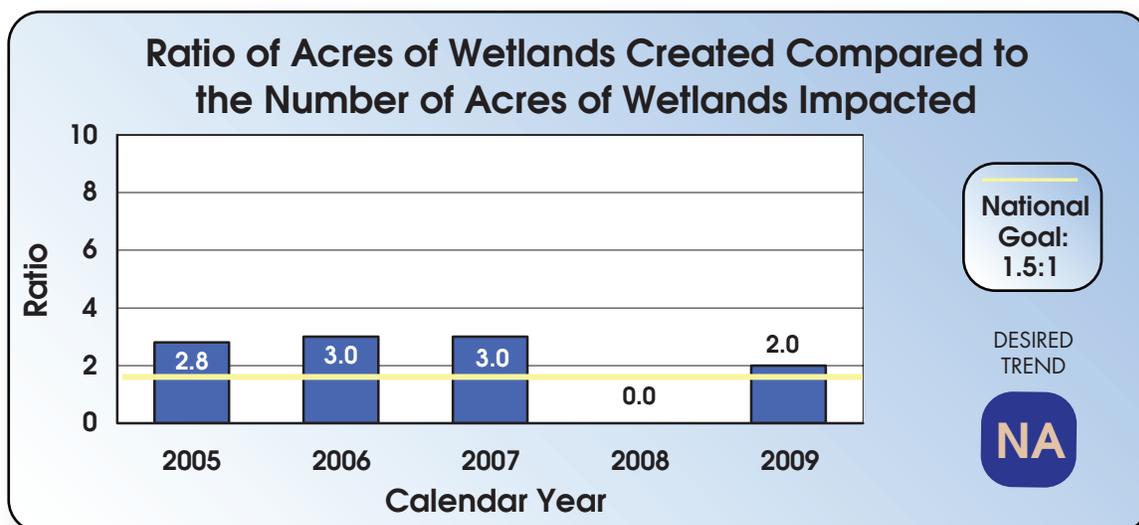
Data for this measure is calculated by comparing acres of project impacts taken from Clean Water Act permits to acres of wetland constructed, as shown in roadway design plans or by calculating the actual wetland areas recreated by MoDOT, or wetland mitigation purchased from a commercial wetland bank. 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. 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 beneficial functions lost 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.

Since this measure is also tracked by FHWA for the nation, MoDOT contacted state DOTs 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. This measure is tracked by calendar year with quarterly updates.

Improvement Status:

MoDOT had two projects with wetland impacts and mitigation in the first quarter of calendar year 2009. Impacts to 0.85 acres of wetland resulted in 1.7 acres of mitigation, which is a ratio of 2:1. This ratio is slightly above the national goal of 1.5 to 1. With the recent construction of the Blue Springs Wetland Mitigation Bank for the Kansas City area, MoDOT has three wetland mitigation banks; one each in the Kansas City, Central and Southeast Districts.



Percent of Missouri's clean air days-10d

Result Driver: Dave Nichols, Director of Program Delivery

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

Purpose of the Measure:

Vehicle emissions are a significant contributor to poor air quality. MoDOT makes every effort to build and operate roads in ways that improve air quality.

Measurement and Data Collection:

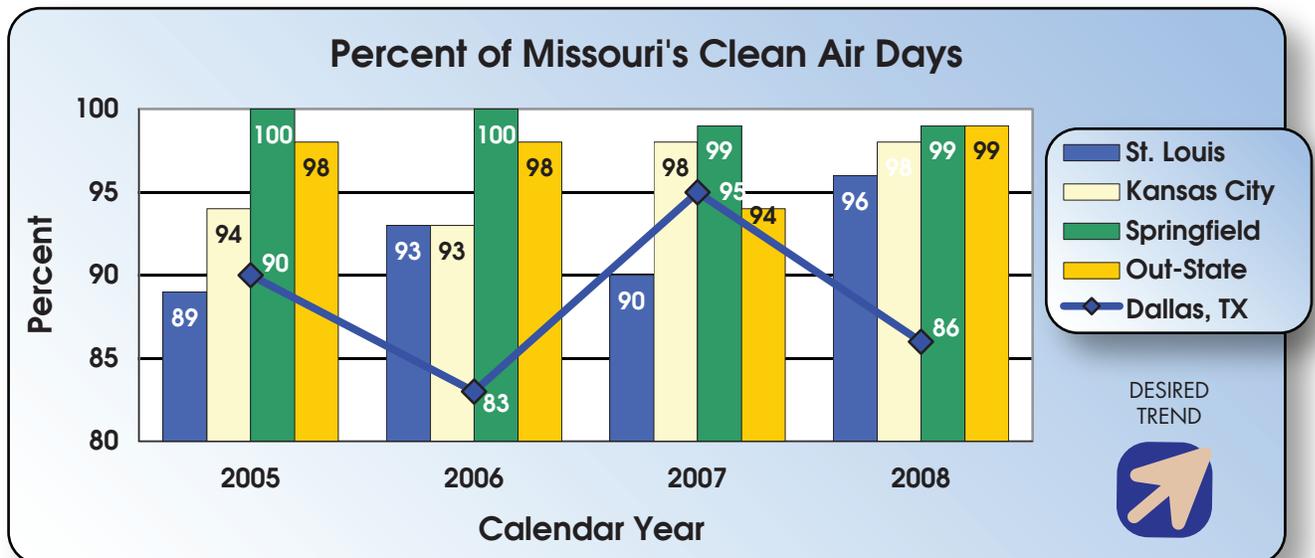
The U.S. Environmental Protection Agency (EPA) establishes air quality standards for the United States. The ground level ozone standard is used in this measure as a threshold for determining if areas of the state have clean air. EPA collects ozone readings in Kansas City, St. Louis, Springfield and the out-state areas during the annual monitoring period – April through October.

The data contained in the table below reflects the available percentage of days, by area, that Missourians experienced clean air. MoDOT compares Missouri's ozone readings to Dallas, Texas, because of its similar pollutants and distance from other areas that affect its air quality.

Improvement Status:

In 2008, a cooler summer contributed to cleaner air than previous years. A new, stricter standard has been established to better meet long-term air quality improvement goals. MoDOT is committed to improving the regions' air quality by managing congestion to reduce emissions, modifying daily operations, modifying employee action, providing information to the public, being a leader in air quality improvement, providing alternative choices for commuters and promoting the use of environmentally friendly fuels and vehicles. MoDOT continues to serve on the air quality committees in Kansas City, St. Louis and Springfield.

MoDOT partnered with the Missouri Department of Natural Resources and was awarded more than \$700,000 from EPA through a Diesel Emissions Reduction Act grant. The grant activities are focused on retrofitting MoDOT vehicles with new diesel emission reduction technologies and increasing fuel efficiency.



Number of gallons of fuel consumed-10e

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Jeannie Wilson, Central Office General Services Manager

Purpose of the Measure:

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

Measurement and Data Collection:

This measure is intended to focus on the total fuel consumed and how wise choices can impact fuel economy. Data is collected based on the number of gallons of fuel consumed by unit recorded in the statewide financial system.

MoDOT must meet the following state guidelines: 70 percent of the light duty vehicles ($\leq 8,500$ GVW) purchased must be alternative fuel capable; 30 percent of the fuel that our light duty alternative fuel fleet uses must be alternative fuel; 75 percent of all diesel fuel burned (off road and on road) must be a minimum of B20 blend (20 percent biodiesel and 80 percent diesel) or higher. MoDOT exceeds the guideline for purchasing alternative fuel capable equipment. Through the first quarter of 2009, 87.6 percent of the diesel fuel used was biodiesel (B20 blend).

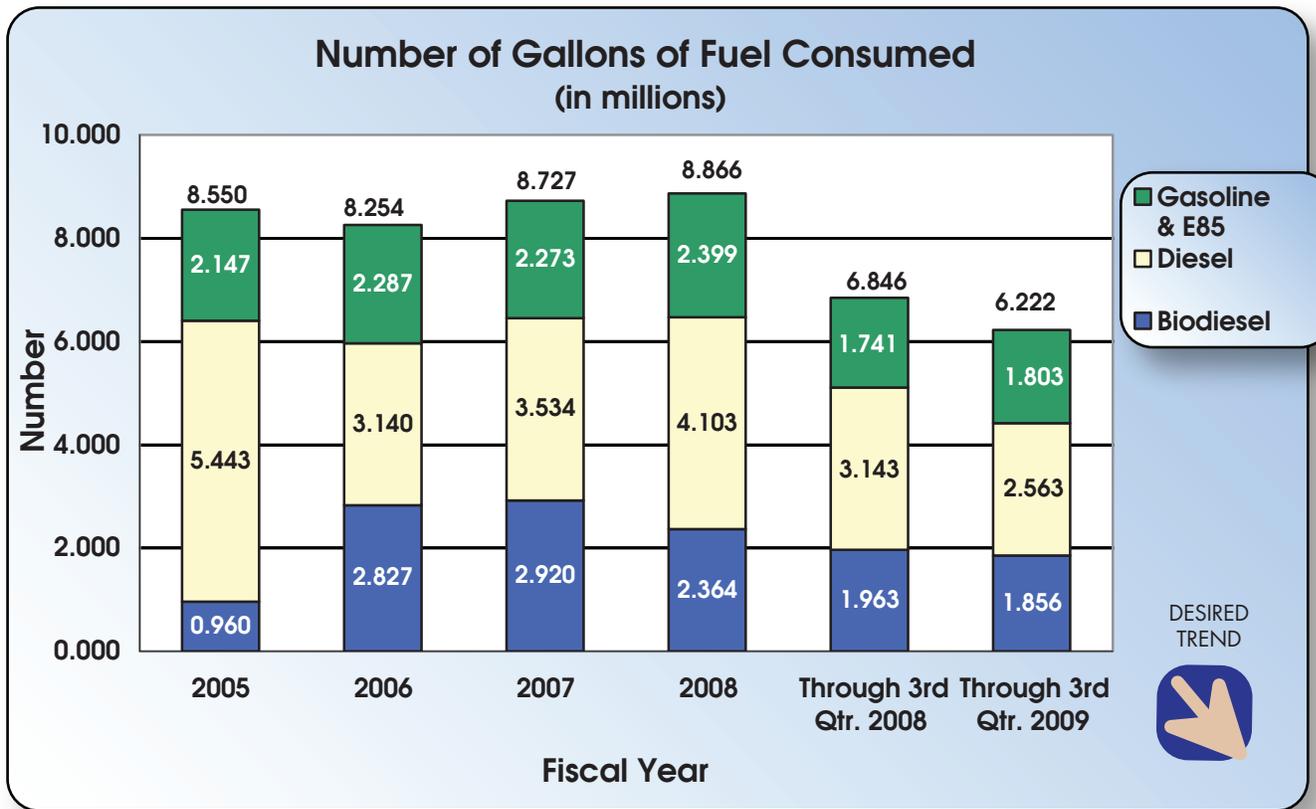
Improvement Status:

The fuel consumed through the third quarter of fiscal year 2009 decreased by approximately 624,000

gallons or 9.1 percent compared to the amount of fuel consumed through the third quarter of 2008.

The amount of diesel used through the third quarter of 2009 decreased approximately 687,000 gallons or 13.5 percent compared to the amount of diesel used through the third quarter of 2008. This can be attributed to fewer snow fights in most parts of the state. The number of miles/hours coded to the snow removal activity through third quarter fiscal year 2009 decreased by 38 percent compared to what was reported to this activity through third quarter fiscal year 2008. This drop corresponds with a drop of 43 percent in the amount of salt used through third quarter fiscal year 2009 compared to what was used through third quarter fiscal year 2008. In addition to the milder winter, the decrease can also be attributed to replacing diesel vehicles with gasoline vehicles.

The amount of unleaded gasoline used through the third quarter of 2009 increased approximately 75,000 gallons or 4.6 percent compared to the amount of fuel consumed through third quarter of 2008. This is due to replacing diesel vehicles with gasoline vehicles. The amount of E85 fuel used decreased by 13,000 gallons or 13.4 percent.



Number of historic resources avoided or protected as compared to those mitigated-10f

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, bridges and marked cemeteries 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.

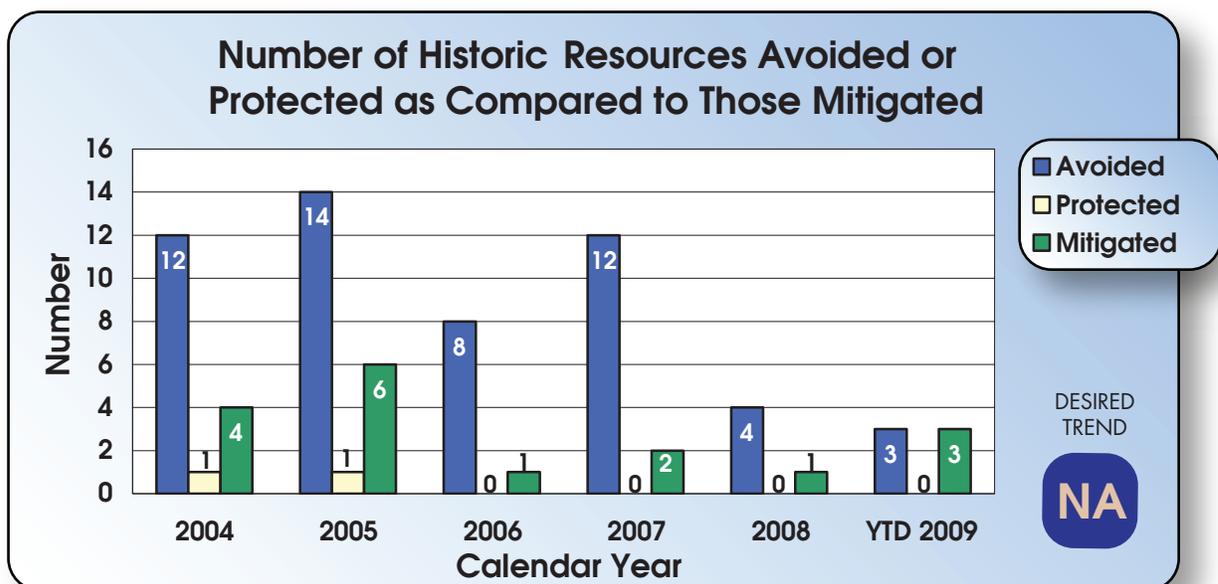
Measurement and Data Collection:

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 revising the design of a project versus the number of resources MoDOT can not avoid and must be mitigated. The data includes only historic resources identified as potentially affected by projects after the conceptual plan stage. The data does not include historic resources avoided during early project planning or

those avoided during consideration of different alignments during National Environmental Policy Act studies. 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. This measure is tracked by calendar year with quarterly updates.

Improvement Status:

MoDOT avoided project impacts to all but three historic resources during the first quarter of 2009. The three historic resources adversely impacted by MoDOT projects were three bridges. Two bridges were on Route 17, one in Miller County and one in Pulaski County, and the third was the Missouri River Bridge at Miami. Adverse impacts from the demolition of these bridges were mitigated through the preparation of detailed photographic and historical documentation of each bridge. While there is no desired trend to this measure, the goal of MoDOT's historic preservation efforts is to minimize adverse project impacts to historic properties whenever it is feasible and prudent.



Number of tons of recycled/waste materials used in construction projects- 10g

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Dave Ahlvers, State Construction and Materials Engineer

Purpose of the Measure:

This measure tracks MoDOT’s efforts to be environmentally conscious 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. The annual total is finalized in each April edition.

Improvement Status:

Recycled materials comprised approximately 13 percent of all hot mix asphalt (HMA) placed in 2008.

Recycled asphalt shingles (RAS) have been used in mixtures by 10 HMA producers who typically supply materials for MoDOT projects. Three more will do so in 2009.

MoDOT is the lead state in a pooled-fund study looking at performance characteristics of asphalt mixtures with RAS to maximize its use and develop specifications that are more performance based.

District 6 has two 2009 projects that are emphasizing use of recycled materials by specifying processes (Route 30 in Jefferson County) and providing incentives for use of environmentally friendly materials and construction practices (I-270 in St. Louis County).

