



Report Highlights

Review of Transportation's Highway Asset Management and Maintenance

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Background Information

The Department of Transportation builds, maintains, and operates the Commonwealth's roads, bridges, and tunnels. Transportation uses data from the pavement, bridge, and culvert sub-systems to make general pavement, bridge, and culvert maintenance decisions at the Central Office. These systems contain data on the condition of these assets that drive the maintenance activity. The Central Office allocates the maintenance budget to the districts, who then use the condition data to determine what maintenance activities to perform.

Observations and Recommendations

Observations: Transportation uses performance targets to help determine how to best use its limited maintenance funds to maintain roads, bridges, and culverts at an acceptable level. Over the past four years, the condition assessment data shows a significant improvement in road condition, with Transportation finally meeting its road condition target of not more than 18% of roads deficient in 2013.

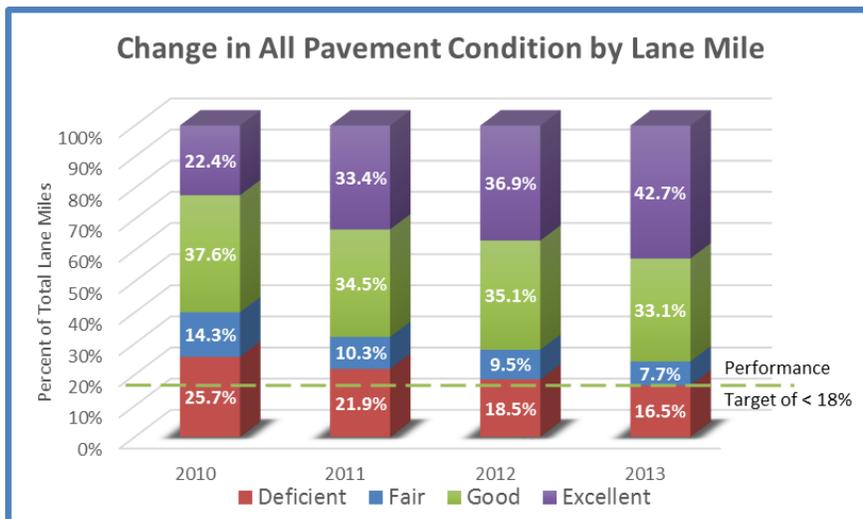
Recommendation: Transportation should continue this positive trend and ensure that they prioritize roads with the most need.

Why we did this review?

This is our fourth review in twelve years over Transportation's asset management processes. The reviews began in 2002 when Governor Warner requested that we perform an operational and performance review of Transportation.

That review found that Transportation did not have a systematic way to identify its maintenance needs and, therefore, could not reasonably determine or quantify its maintenance needs.

We followed up on this issue in 2004 and 2009, monitoring Transportation's progress as they implemented the Asset Management System.



Performance Targets

Roads — to have no more than 18% of all roads in a deficient state.

Bridges and Culverts — to have no more than 8% of all bridges and culverts in a deficient state.



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MAINTENANCE AND INFRASTRUCTURE MANAGEMENT SYSTEM

To have an all-inclusive Asset Management System, Transportation has determined that they need the Maintenance and Infrastructure Management System, that integrates the Pavement, Bridge, and Equipment Management Systems with what Transportation defines as "other assets." Under this new system, the Pavement, Bridge, and Equipment systems, along with other asset records, will work together to more efficiently determine maintenance needs and apply maintenance funding by spatially integrating all aspects of maintenance.

Simply put, MIMS will allow decision makers to look at a section of road needing maintenance and overlay other assets, such as signs, markings, guardrails, and drainage ditches. This will provide a "whole picture" approach to the project.

Observations and Recommendations

Observation: Transportation has good procedures for determining each year's maintenance activity. However, at times over the past four years, districts did not always perform the recommended level of maintenance activity, instead performing a lower level of maintenance.

Recommendation: Transportation is working to ensure roads receive the needed repairs and has shown improvement in performing the prescribed maintenance in the last two years. Transportation should continue to follow this trend.

Observation: The Transportation Maintenance and Operations Committee has minimal support for how they originally established the performance targets for roads and bridges in 2004 and does not have evidence of evaluating the targets over the past 10 years to ensure they are still appropriate.

Recommendation: The Transportation Maintenance and Operations Committee should evaluate the relevancy of performance targets periodically and maintain supporting documentation of the review. Transportation should develop and document their procedure on establishing and reviewing performance targets to meet federal requirements.

Observation: Over 4,600 bridges and culverts in the Commonwealth are on the verge of becoming structurally deficient.

Recommendation: Transportation should prioritize maintenance of these bridges and culverts to avoid increased costs to repair them in the future.

