

2017 MP PAVEMENT CONDITION REPORT

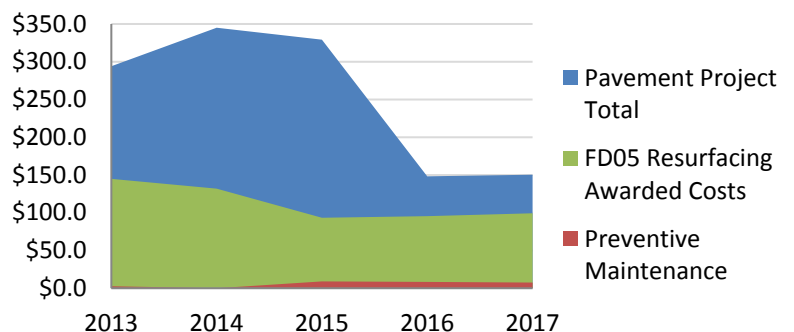
The Kentucky Transportation Cabinet (KYTC) maintains 31,769 lane miles of MP system pavement. The MP system is comprised of non-Interstate and Parkway State Primary pavement, State Secondary pavement and Supplemental pavement. MP pavements are important for the economic wellbeing and safety of Kentucky. These pavements carry vehicular traffic, commercial traffic and are essential to the daily lives of residents.

The annual condition survey quantifies distress and determines when a pavement is due for preventive maintenance, resurfacing, or rehabilitation. This data is combined with project spending to express pavement condition as performance measures.

Investment

The KYTC maintained 2016 funding levels for MP pavements in 2017. During this time, the Cabinet spent \$150 million to provide treatments for roughly 2,000 lane miles of the system. This level of investment requires pavements on the MP network to last 15.9 years on average between treatments.

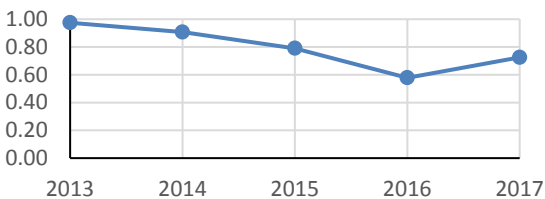
MP Project Spending



Pavement Sustainability Ratio

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Needs to equal one to maintain current system conditions

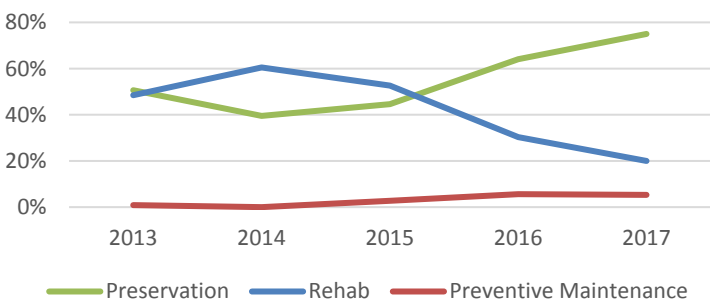


The Pavement Sustainability Ratio (PSR) measures the effectiveness of KYTC pavement investments. The PSR helps the agency determine if pavements are replaced or renewed at the same rate as they are wearing out.

In 2017, 75% of the pavement budget was spent on traditional thin asphalt overlays and concrete repair and grind, 20% went to rehabilitative treatments, capacity or safety improvements, and 5% was used for lower cost

preventive maintenance treatments.

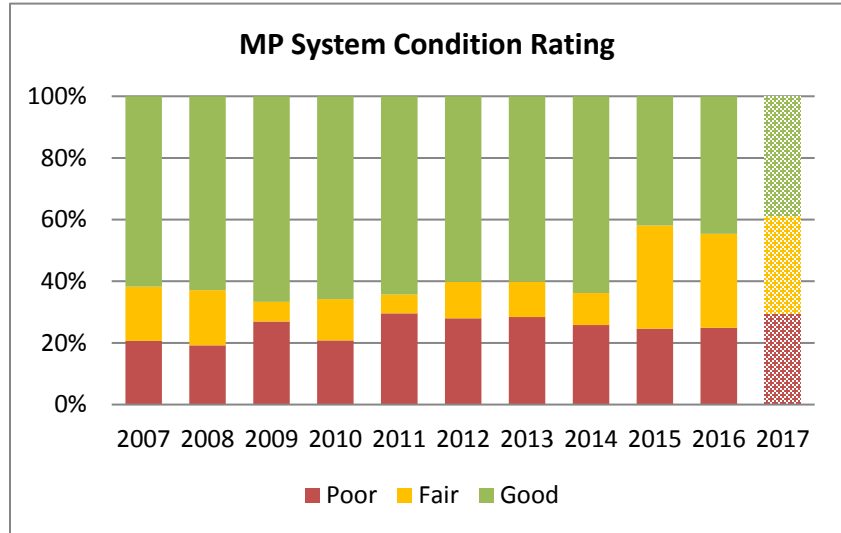
MP Pavement Budget Percentages



The result of the current investment proportions is a PSR increase nearing the 2015 rating despite spending less than half of 2015 expenditures. This is possible because of a decline in asphalt resurfacing prices and a shift in pavement spending priorities away from investments in costly rehab projects and toward preservation of the existing system.

Pavement Condition

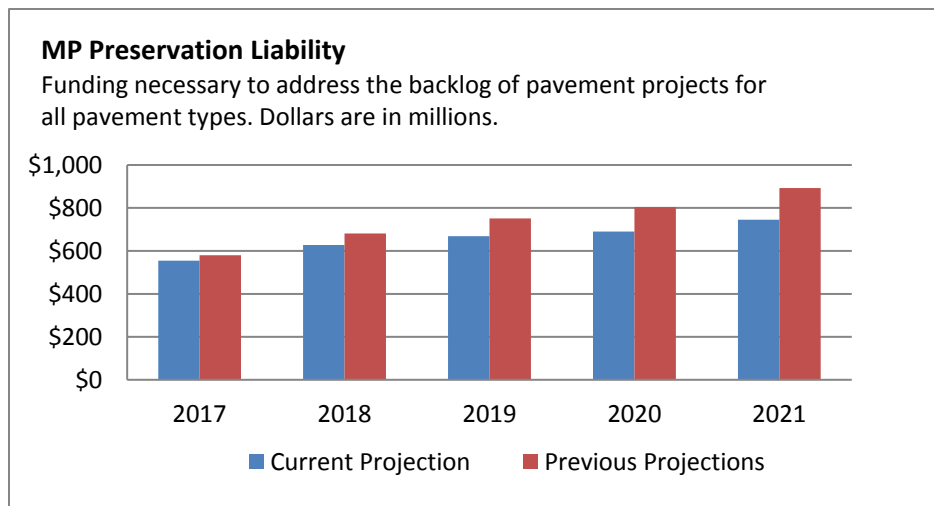
KYTC utilizes a sliding scale that holds high-traffic roadways to a higher standard of performance, rating the roadways as **good**, **fair** or **poor** depending upon the overall level of distress and the total traffic volume. A good pavement is smooth with few defects while a poor condition pavement is characterized by a rough ride and moderate to severe distresses.



The project reductions in 2015 and 2016 reversed the slight improvements achieved from previous investments. Continuously constrained pavement budgets will make it difficult to improve network conditions however the increased focus on preservation and preventive maintenance will help to lessen negative impacts.

Preservation Liability

If funding is inadequate, some pavement preservation is deferred, incurring a future financial liability. The consequence of deferring pavement preservation becomes more severe as pavements age and require costlier interventions than if addressed earlier.



Assuming a sustained current budget level

focused largely on preservation and preventive maintenance, the preservation liability will continue to grow but at a slower pace than previously projected. Projections indicate the MP network pavement liability will be nearly \$800 million by 2021. Additional investments in the pavement network are required to reduce the backlog and improve system conditions.