

## What is PMS, and how does it Guide Me?

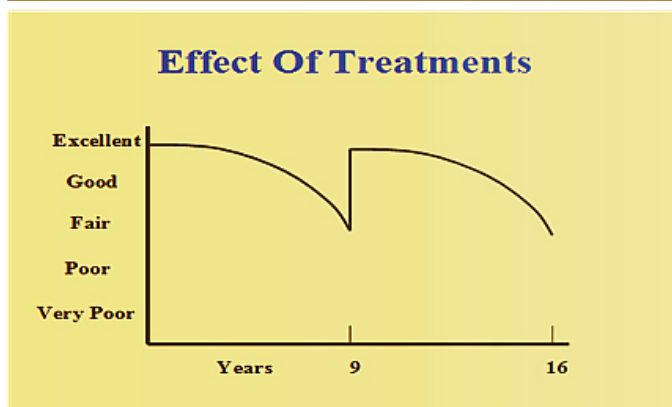
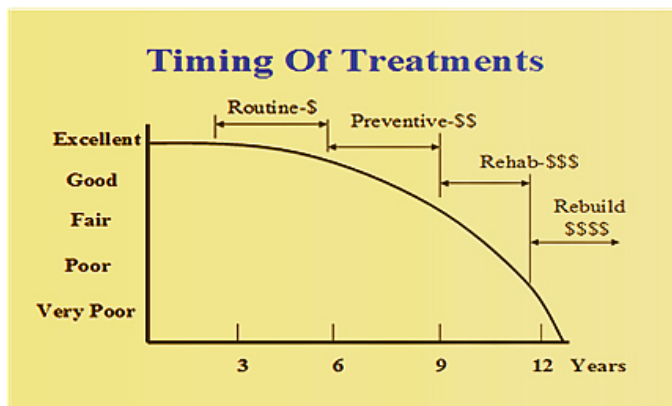
A PMS is a methodology for maintaining road surfaces by systematically analyzing pavement life cycles and pavement ratings to determine timing of a pavement preservation; as well as what the most cost effective pavement rehabilitation type. Also to develop pavement rehabilitation budgets that will prevent major road deterioration.

There are three levels of work to be done on pavements:

- Routine maintenance (pothole repair, patching, crack sealing, etc), done on an as-needed basis
- Preservation or rehabilitation (installing a new wearing surface, a seal coat or overlay), done on a cyclic basis
- Reconstruction (remove and replace the pavement and base structure), done when the road has failed or needs widening or realigning.

There are three phases in the life of a pavement:

- when the pavement is in good or better condition and does not need a preservation (PSC above 60)
- when a pavement preservation is cost effective (PSC between 60 and 40)
- when the pavement is in such a poor condition that a pavement preservation is no longer cost effective (PSC less than 40), reconstruction is needed.



## Cost

By knowing when pavement preservation is cost effective, the county can spend their limited pavement preservation funds on the most cost-effective rehabilitations. By properly preserving their pavements, they reduce the need for and cost of routine pavement maintenance.

As of 2011 the typical estimated cost of work on a two-lane road is:

Chip Seal	\$35,000 per mile	PSC = 60	6 year life
Overlay	\$200,000 per mile	PSC = 40	12 year life
Reconstruction	\$200,000 per mile	PSC < 40	design life

(The reconstruction cost is to reconstruct the pavement structure, and does not include major changes in width, alignment, drainage, or environmental concerns)

The results of the PMS program are not the final answer. The PMS results are but one of the items that must be considered during the engineering analysis of the proposed pavement preservation program. Each proposed project needs to be reviewed to make sure it is the right thing to do.

## Benefits

A benefit of a Pavement Management System is the determination that a preservation activity will not be cost effective. One of the reports (Below Must) provided by the PMS is a list of all roads in such a poor condition that a preservation activity will not be cost effective, and that these roads need to be reconstructed. These roads need an in-depth engineering analysis to determine what can be done to improve the road. If reconstruction is needed, funds must be located, such as RAP funds for rural arterials, TIB funds for urban arterials, state and federal funds.

The use of a PMS to determine if a preservation project is cost effective does not prevent the county from doing non-cost effective preservation projects. If it is determined that a preservation activity will be done, for whatever reason, that project will be done. The PMS provides an engineering reason for not doing the project, that the pavement is in such poor condition that a pavement preservation will not last and is not cost effectively.