



Multnomah County, Oregon

Pavement Management History and Model

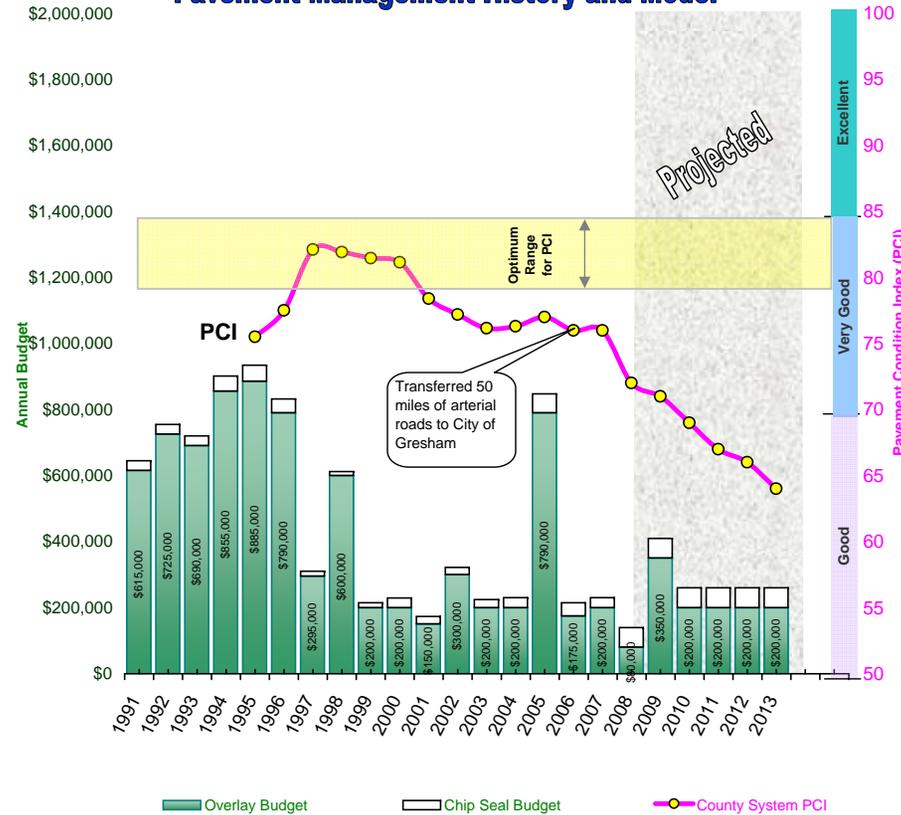
The Pre-implementation Years

Throughout most of the 1990's, Multnomah County had a healthy Road Maintenance surface treatment budget.

Typical annual overlay budgets were between \$600K and \$900K.

These amounts seemed adequate to maintain the existing level of quality prior to the implementation of the MTC system in 1995. (MTC is Metropolitan Transportation Commission, Oakland, California.)

Prior to 1995, the county was utilizing a mainframe non-engineering pavement management system.



The Sustaining Years

During the few years prior to and following the implementation of the MTC system, the county continued to budget similar amounts for overlays and chip seals.

The MTC program calculated that \$1,200,000 per year was required to optimize and maintain condition levels.

Even though the annual budgets fell short of this amount, the county's system sustained levels within the "Optimum Range" with only minor slipping. The budgets were a good portion of the calculated value for optimization.

The Implementation Years

1995 marked the first year that the MTC system was fully implemented on a personal computer at Multnomah County, replacing the previous system that lacked engineering emphasis.

This new evaluation tool assisted in making better decisions in utilizing the existing funds.

During the next two years, the county's system PCI (pavement condition index) rose nearly 7 points, placing it in the middle of the "Optimum Range" of pavement condition. As shown on the chart, "Optimum Range" for PCI is between 80 and 85.

End of FY	Overlay Budget	Chip Seal Budget	County System PCI
1991	\$615,000	\$30,000	Mainframe System
1992	\$725,000	\$30,000	Mainframe System
1993	\$690,000	\$30,400	Mainframe System
1994	\$855,000	\$46,300	Mainframe System
1995	\$885,000	\$49,400	75.5
1996	\$790,000	\$42,200	77.5
1997	\$295,000	\$15,300	82.1
1998	\$600,000	\$11,900	81.9
1999	\$200,000	\$15,100	81.5
2000	\$200,000	\$29,900	81.2
2001	\$150,000	\$23,400	78.4
2002	\$300,000	\$22,300	77.2
2003	\$200,000	\$24,500	76.2
2004	\$200,000	\$30,000	76.3
2005	\$790,000	\$58,000	77
2006	\$175,000	\$40,000	76
2007	\$200,000	\$30,000	76
2008	\$80,000	\$60,000	72
2009	\$350,000	\$60,000	71
2010	\$200,000	\$60,000	69
2011	\$200,000	\$60,000	67
2012	\$200,000	\$60,000	66
2013	\$200,000	\$60,000	64

The Declining Years

The 1999 fiscal year brought extensive budget cuts to the county's maintenance treatment program.

The average budget for the past five years has been 60% of the average budget for the previous thirteen years. These drastic budget decreases have resulted in a noticeable and steady decline of the quality of the county's roads.

The system has since fallen out of the "Optimum Range" and continues to fall. It is worth noting that there appeared to be a one to two year lag time between the budget cuts and this system decline.

Figure 1