

Pavement
Condition
Assessment



OCTA – 2005 Pavement Condition Assessment Study

Presented by



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Objectives

- Determine current pavement conditions
- Determine current pavement expenditures
- Determine expenditures
 - to maintain existing conditions
 - **Improve to 1998 levels**
- Determine funding shortfall
- **Impacts of loss of Measure M**





PMS Software Used

PMS software	# of Agencies	
	1998	2005
Cartegraph	1	5
IMS	2	1
InfraManager	1	1
MicroPaver	8	14
MTC	1	5
Orange County PMS		3
Stantec PMA V1.43	3	2
Web Quickbase		1
Others	12	2
Totals	16	34



Analyses

- **3 Scenarios**
 - \$ to maintain current conditions (PCI = 75)
 - \$ to improve to 1998 levels (PCI = 81)
 - What happens when we lose Measure M?
- **Assumptions**
 - Results in 2005 dollars
 - Construction costs escalator
 - 15 year analysis period





Construction costs

Period	Annual Average % Change in Construction Prices
1989 - 2003	2.48%
1990 - 2004	5.07%
1995 - 2004	8.04%
10/04 – 6/05	22.60%



Results

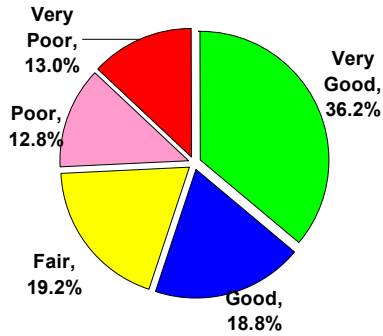


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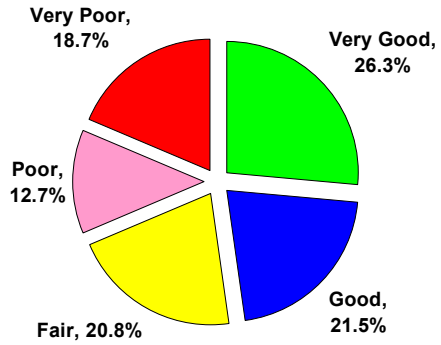


PCI Comparisons - Overall

1998 (PCI = 81)



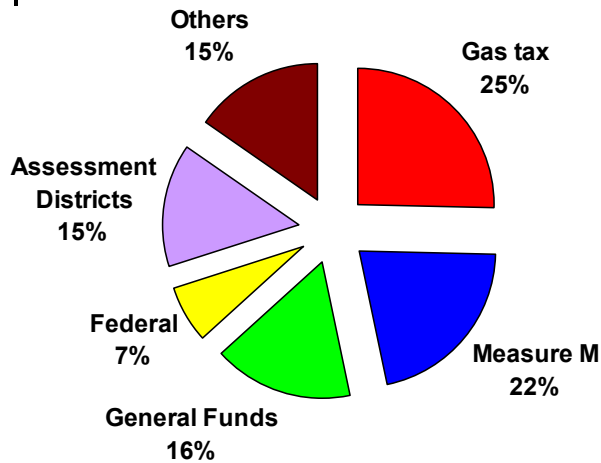
2005 (PCI = 75)



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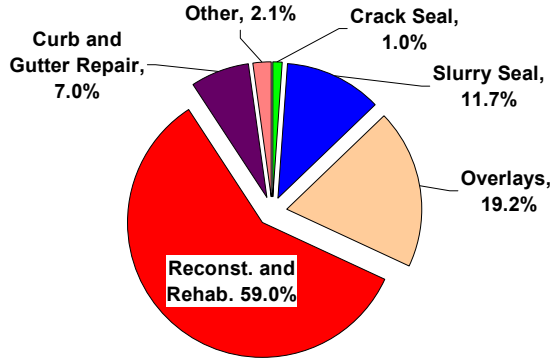
Funding Sources



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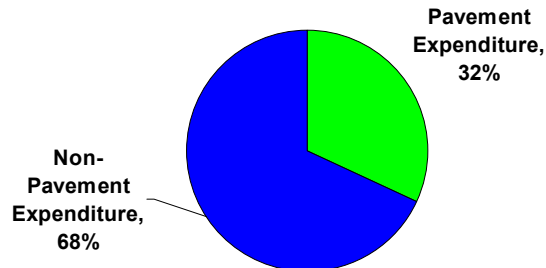
Pavement Expenditures Survey (5-Year Average: \$76.3m/yr)



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Pavement Expenditures as % of Revenues





Projected 15-year expenditures

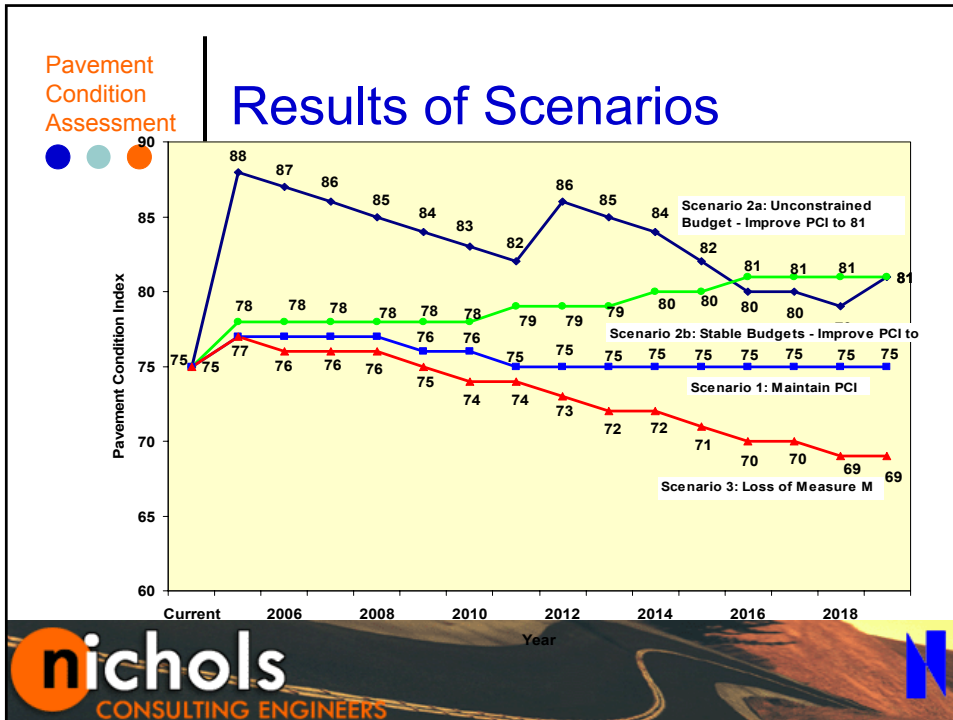
- **\$1.326 billion in pavement expenditures**
- **Assumptions**
 - **Baseline is from surveys**
 - **Measure M ends in 2011**
 - **No loss of MOE funds (\$70m/year)**
 - **Prop. 42 funds included – 32% for pavements (\$194 m/15 years)**



Results of Scenarios

Scenario	15 year Needs (\$m)	Expend (\$m)	PCI	15 year Shortfall (\$m)
Maintain PCI = 75	\$1,640	\$1,326	75	\$ (314)
Improve to 1998 levels				
"Front load" expenditures	\$ 1,831	\$1,326	81	\$ (505)
"Stable" budget	\$2,090	\$1,326	81	\$ (764)
Loss of Measure M	\$1,326	\$1,326	69	\$ -





- ## Recommendations
- Pavement Condition Assessment
- Policy decision – determine pavement condition goals countywide
 - Support stable source for streets & roads funding
 - Alternative funds still needed for shortfalls
 - Explore use of longer life pavement alternatives
- nichols CONSULTING ENGINEERS



Recommendations

- **Future regional projections**
 - All streets should be in PMS
 - Use standard 0-100 scale
 - Employ standard procedures for unit cost determinations
- **Consider using standard PMS**