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Performance-Based Approach to Funding Policy for Local Streets and Roads

Sui Tan, MTC

9th National Conference on TAM, San Diego, April 17, 2012



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Supporting Performance, Accountability, and Transparency at Regional Level

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Business As Usual ???



- New Transportation Bill focuses on performance-driven framework:
 - Performance
 - Accountability
 - Transparency



How We Get into Performance



- Unfair funding policy for local agencies
 - ✓ Population, mileage, and needs
- “Worst first” practice prevalent
- Conditions are facing steep decline
- Gaps in full pavement management cycle

San Francisco Metropolitan Region



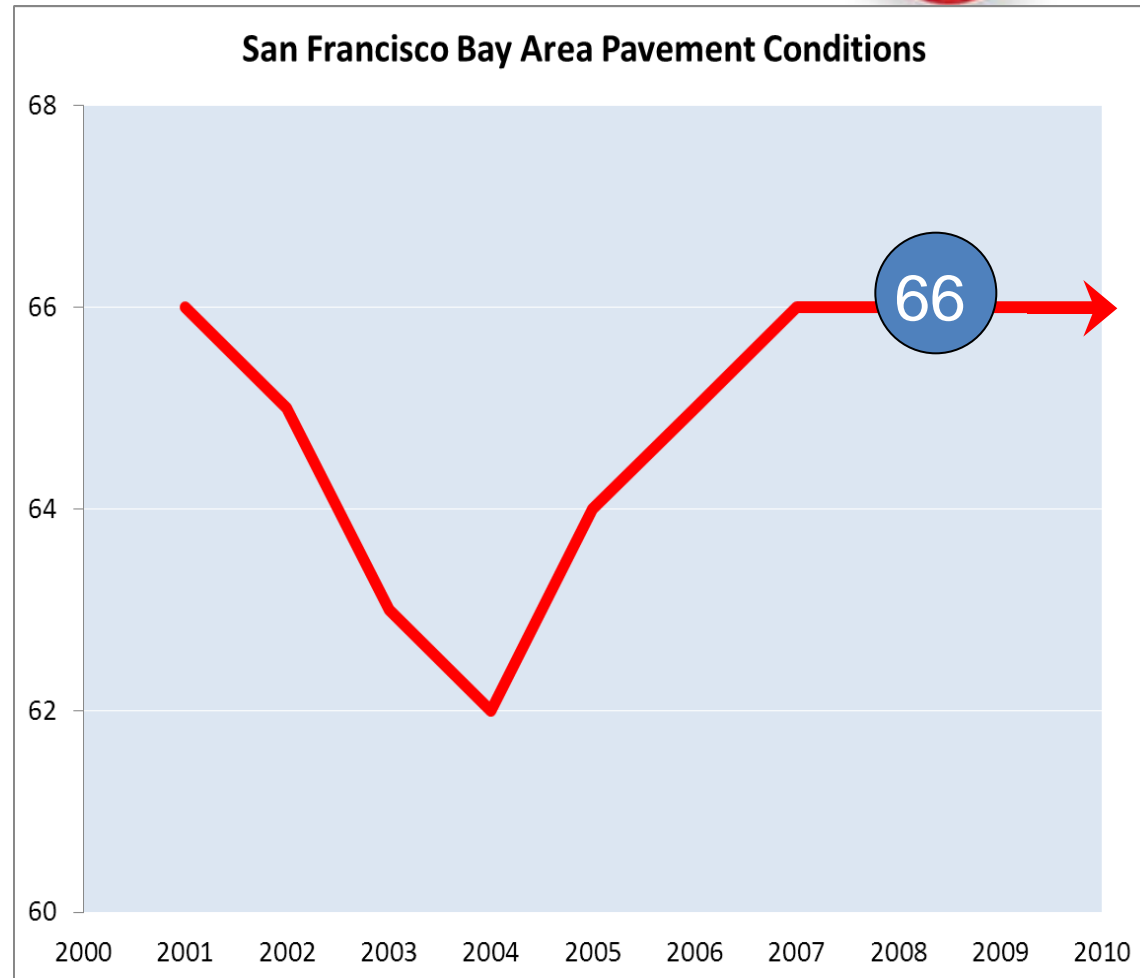
- ❑ Population = 7.3 mil
- ❑ 9 counties
- ❑ 100 cities
- ❑ 42,500 lane-miles
- ❑ 1,500 miles of highway
- ❑ 23 transit agencies
- ❑ 7 toll bridges
- ❑ One MPO: MTC



Bay Area Local Street and Road Conditions



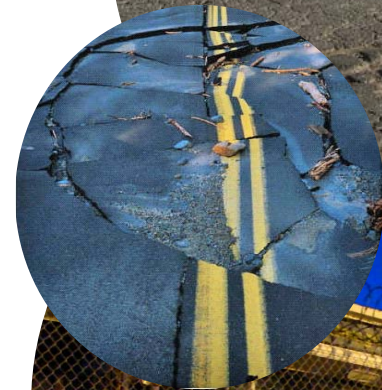
- Average PCI = 66
- Conditions stable since 2007
- Still too close to the “tipping point”



Why are Local Streets and Roads a Regional Concern?



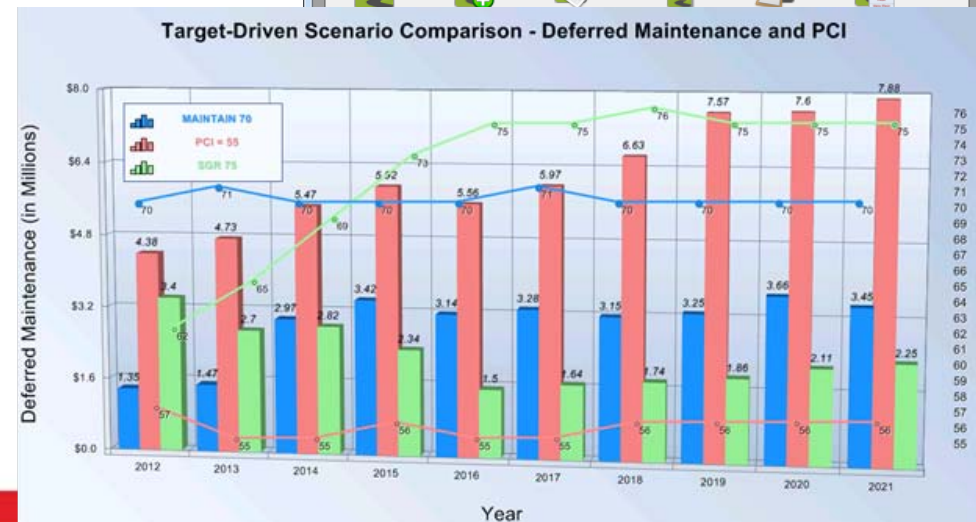
- ❑ Supports *All* modes of transportation
- ❑ \$50 billion replacement value
- ❑ Conditions are facing steep decline
- ❑ Escalating deferred maintenance jeopardizes funding for *All* transportation priorities



MTC's StreetSaver®



- ❑ Used by all 109 Bay Area jurisdictions; 300 nationwide
- ❑ Developed 25 years ago
- ❑ Designed specifically for local agencies
- ❑ Minimize costs - maximize benefits
- ❑ Purpose:
 - ❑ Document conditions & needs
 - ❑ Promote pavement preservation



Better Pavement Management in Bay Area



U.S. Department of Transportation
Federal Highway Administration

MTC is recognized by the FHWA as “one of the first regions in the country to implement a pavement management system— FHWA Office of Asset Management

Pavement Condition Index (PCI) for Bay Area Jurisdictions, 2006–2010

Jurisdiction	County	Total Lane Miles	3-Year Moving Average			
			2006	2007	2009 ¹	2010 ²
Very Good (PCI= 80–89)						
Brentwood	Contra Costa	416	85	84	85	86
Belvedere	Marin	24	81	79	82	84
Dublin	Alameda	240	80	80	81	82
Los Altos	Santa Clara	226	85	84	83	82
Foster City	San Mateo	121	82			
Santa Clara	Santa Clara	597	83			
San Pablo	Contra Costa	104	67			
Good (PCI= 70–79)						
Livermore	Alameda	655	79			
Union City	Alameda	331	76			
Contra Costa County	Contra Costa	1327	83			
Redwood City	San Mateo	353	74			
Atherton	San Mateo	106	68			
Brisbane	San Mateo	57	70			



The Pothole Report: Can the Bay Area Have Better Roads?

June 2011



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Pothole Report:
<http://tinyurl.com/6t6y5lm>

Local Streets & Roads Needs Assessment



25-Year Local Street & Road Shortfalls

Jurisdiction	Total Need	Revenue	Shortfalls
Alameda	\$ 3,211,497,606	\$ 1,837,608,171	\$ 1,373,889,435
Contra Costa	\$ 2,575,509,231	\$ 1,285,503,979	\$ 1,290,005,252
Marin	\$ 1,169,630,529	\$ 486,827,532	\$ 682,802,997
Napa	\$ 866,252,240	\$ 317,247,354	\$ 549,004,886
San Francisco	\$ 2,268,882,679	\$ 1,065,156,075	\$ 1,203,726,604
San Mateo	\$ 2,325,103,049	\$ 1,081,589,012	\$ 1,243,514,038
Santa Clara	\$ 4,372,399,438	\$ 2,391,317,434	\$ 1,981,082,004
Solano	\$ 1,387,724,521	\$ 369,740,349	\$ 1,017,984,172
Sonoma	\$ 2,214,831,687	\$ 642,751,396	\$ 1,572,080,291
Total	\$ 20,391,830,980	\$ 9,477,741,301	\$ 10,914,089,680

Performance Measures



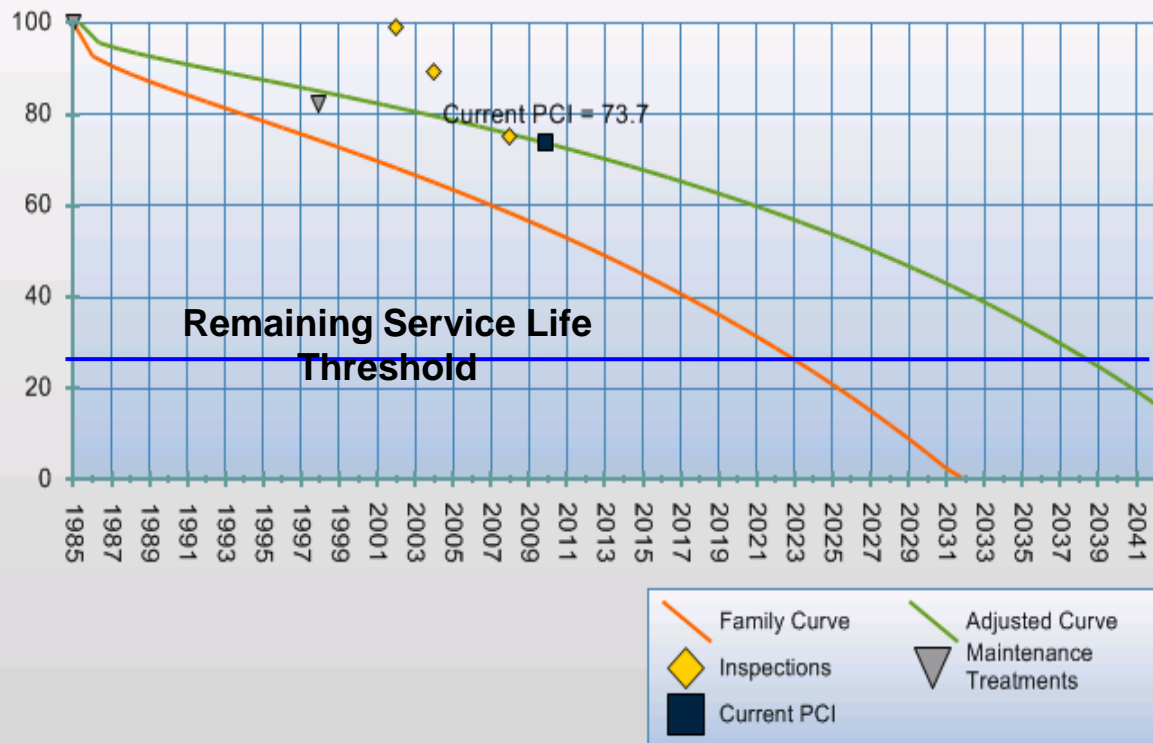
- Deferred Maintenance
- Pavement Condition Index (PCI)



Performance Measures



Deterioration Curve for Pavement Section (000007 - 000003)



- Remaining Service Life
- Min % in Very Good Condition
- Max % in Poor Condition
- **Pavement Preservation Index**

Performance-Based Funding Allocation Formula



Outcome-Driven Performance Measure



- ❑ Pavement Preservation Index
- ❑ Shifts practice from “worst first” to preventive maintenance
- ❑ Replaces “Maintenance of Effort”
- ❑ No advantage or disadvantage due to existing network features or budget
- ❑ Promotes pavement preservation principles
- ❑ Data from StreetSaver

Performance Measure Criteria



- ❑ Difficult to find a “One Size Fits All” performance measure
- ❑ Guiding principles:
 - ✓ Measurable
 - ✓ Objective as possible
 - ✓ Can be fairly applied
 - ✓ Utilizes data widely available
 - ✓ Meaningful (promotes pavement preservation)

Your Tax Dollars At Work



- ❑ Performance
 - ✓ Use of Asset Management
 - ✓ Promote sound pavement preservation
 - ✓ Outcome driven – “worst first” to preventive maintenance
- ❑ Accountability
 - ✓ Taxpayers know where the money is spent
 - ✓ Establish “maintenance of effort” for local agencies
- ❑ Transparency
 - ✓ Report card on pavement conditions

Contact



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