Climate Initiative Program
Cold In Place Recycling

Understanding the Local Needs

Metropolitan Transportation Commission

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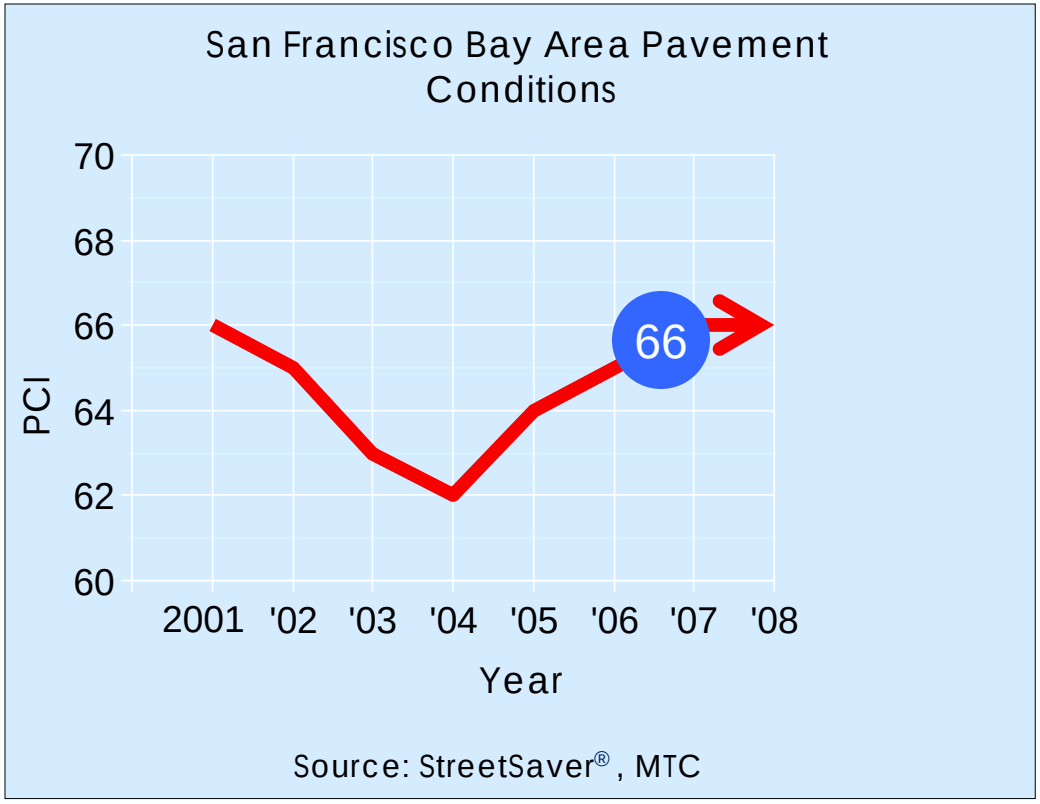
October 13, 2011

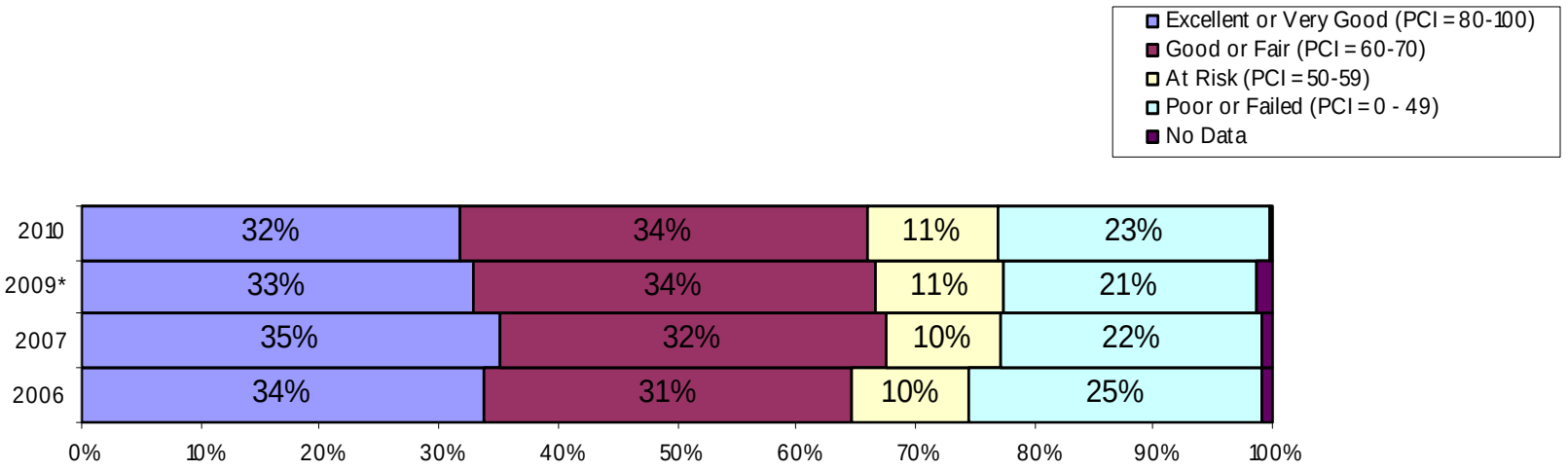
Bay Area Local Street and Road Conditions

- **SF Bay Area's Average PCI = 66**
- **Conditions have improved slightly over the last few years**
- **Still too close to the "tipping point"**



San Francisco Bay Area Local Street and Road Conditions

Pavement Conditions for Local Roadways, 2006-2010 (Lane Miles)



* Increased utilization of online reporting options by many jurisdictions in 2009 allowed MTC to collect and tabulate 2009 pavement condition data, even as 2008 data was still being compiled. To simplify reporting, MTC has decided not to separately report 2008 data, electing instead to bring all PCI data up to date as of 2009.

Potential Impact of CIR on GHG Emissions Region-Wide

Estimated GHG Savings Per Lane Mile with CIR

GHG Emissions Savings:

	GHG Savings		
	CO_2e lbs. / ton pavement	Tons pavement / Lane Mile	CO_2e lbs. / lane mile pavement
CIR	88	1,485	130,704
Passenger Car Equivalent			10.8

*On average, for **every lane mile** of roadway that CIR is used instead of traditional HMA, approximately **130,704 lbs of GHG** emissions are saved, which is equivalent to taking **11 cars off the road for one year.***

Mileage Suitable for CIR Based on PCI & Estimated GHG Savings

Roadway Condition Range*	% of Total BA LSR Mileage	Lane Mileage	Depth	Length	Width	Tons Asphalt	CO2e Savings / Ton**	Total CO2e Savings
PCI: 60-69	12%	5042	0.167	5280	15	4,991,857	88	439,283,434
PCI: 50-59	10%	4202	0.250	5280	15	6,239,822	88	549,104,292
PCI: 25-49	8%	3362	0.333	5280	15	6,655,810	88	585,711,245
Total:		**12,606**				**17,887,488**		**1,574,098,970**
Annual Passenger Car Reduction Equivalent:								**129,819**

*Source: MTC's 2009 Local Streets and Roads Regional Condition Summary

*The GHG emissions savings potential if **all candidate streets** in the region were paved using CIR instead of traditional HMA is **1.6 billion lbs** of CO2e, which would be equivalent to taking **129,843** cars off the road for one year.*

5-Year Estimated Potential GHG Savings

5-Year Potential GHG Emission Savings:	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total LSR Capital Funding Available (1,000s)*	$ 453,268	$ 466,934	$ 482,029	$ 459,041	$ 475,590
Available for CIR Treatable Roadways (30%)	$ 135,980	$ 140,080	$ 144,609	$ 137,712	$ 142,677
Avg. CIR Cost per Lane Mile*	248	248	248	248	248
Lane Mileage Funding Capacity	549	566	584	556	576
PCI: 60-69	*220*	*226*	*234*	*223*	*231*
PCI: 50-59	*183*	*189*	*195*	*185*	*192*
PCI: 25-49	*146*	*151*	*156*	*148*	*154*
Tons of Asphalt Recycled with CIR	779,515	803,017	828,977	789,443	817,903
GHG Emissions Savings (lbs.CO2e)	**68,609,730**	**70,678,325**	**72,963,207**	**69,483,554**	**71,988,520**
Annual Passenger Car Reduction Equivalent:	**5,658**	**5,829**	**6,017**	**5,730**	**5,937**

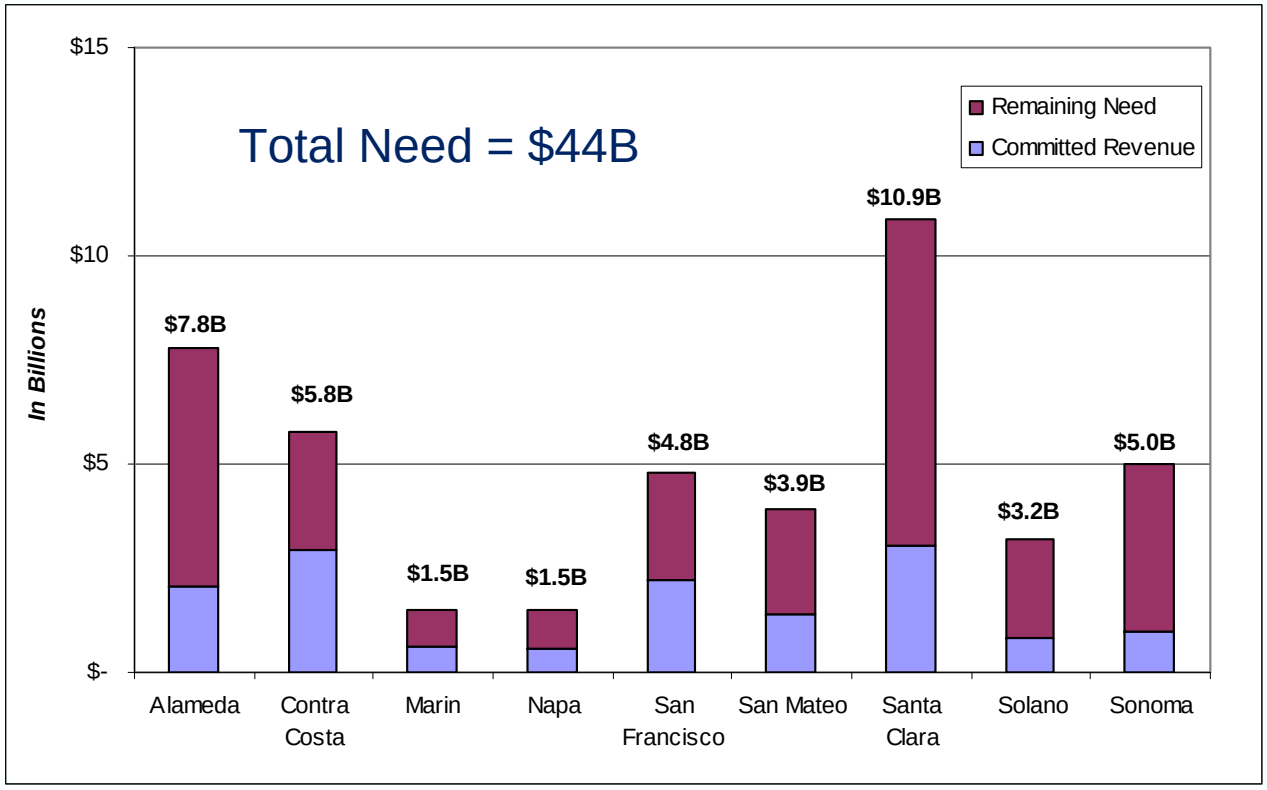
*Source: 2009 Local Street and Road Needs, Revenue and Performance Survey

*The GHG emissions savings potential over the **next five years** if **available funding** was spent on treating appropriate roadways with CIR instead of HMA is **354 million lbs** of CO2e, which would be equivalent to taking **29,172 cars off the road for one year.***

Local Street and Road 28-Year Maintenance Needs

- **Target State of Good Repair = PCI of 75**
- **Corresponding Non-Pavement Target**
- **Total Needs = $44.4B**
- **Available Revenue = $14.6B**
- **Remaining Need = $29.7B**

Local Street & Road 28-Year Maintenance Needs by County



Potential Cost Savings with CIR

- **Estimates of cost savings with CIR are approximately 40%**
- **28-Year Estimated LSR Maintenance Need = $44 Billion**
- **Potential Cost Savings to Taxpayers are Significant**
- **GHG Savings are a Bonus**

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THANK YOU!