Regional Asset Management Efforts for Sustaining Local Streets and Roads

Metropolitan Transportation Commission

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San Francisco Metropolitan Region

- Population = 7.3 Mil
- Nine Counties
- 109 Jurisdictions
- 42,500 Lane-Miles
- 1,500 Miles of Highway
- 23 Transit Agencies
- Seven Toll Bridges
- One MPO: MTC

Metropolitan Transportation Commission

- MTC is the Transportation Planning, Financing and Coordinating Agency for the 9-County Region
- Both an RTPA and an MPO
- Parent Agency of the Bay Area Toll Authority (BATA)
- Required to Update the Long-Range Regional Transportation Plan (RTP) Every Four Years
- Currently Working on *Plan Bay Area*, which is both an RTP and a Sustainable Communities Strategy (SCS)

Why are Local Streets and Roads a Regional Concern?

- Largest & Most Expensive Piece of Transportation Infrastructure
  - **$50 billion replacement value**
- Supports *All* Modes of Transportation
- Roadway Conditions are Facing Steep Decline
- Escalating Deferred Maintenance Costs Jeopardize Funding for *All* Transportation Priorities

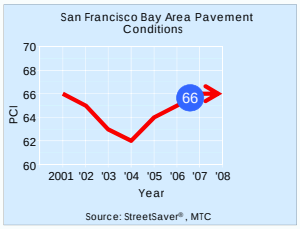
Bay Area Local Streets & Roads

Pavement:
- 42,000 Lane Miles
- Maintenance Backlog = $9B
- Current PCI = 66 "Fair"
- Projected 2040 PCI = 45 "Poor"
- Projected 2040 Backlog = $35B

Non-Pavement:
- Storm Drains, Sidewalks, Street Lights, Signals, Curb & Gutter, Other LSR Essential Assets
- Accounts for 45% of Total LSR Capital Needs
- Conditions are Assumed to Correlate to Pavement Condition

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"



Assessing Local Streets & Roads Needs

- How Much Do We Need to Spend as a Region?
  - Pavement
  - Non-Pavement
  - Bridges
- Regional "What-If?" Scenarios
- Exclusive Use of StreetSaver® Makes This Easy

What Does The Assessment Include?

- Projection of Pavement & Non-Pavement Maintenance Need for the Existing System
  - Pavement – Reconstruction, rehabilitation and preventive maintenance of the street surface and/or sub-grade.
  - Non-Pavement –I.E., storm drains, traffic lights and safety, sidewalks, retaining walls, ADA, etc…all of the items in addition to pavement that are necessary for a functioning street & road network
- Projection of Revenue Available to Meet the Need
  - Gas Tax, Local Transportation Sales Taxes, Local Funds, VRF
- Determination of Shortfall (Needs – Revenue)

Local Streets & Roads Needs Assessment

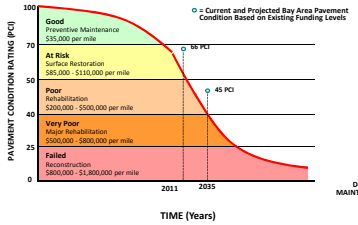
28-Year LSR Capital Needs (In Billions)

County	Available Revenues	Pavement Needs	Non- Pavement Needs	Total Capital Needs	Total Remaining Capital Needs
Alameda	$ 2,148	$ 3,715	$ 4,082	$ 7,798	$ 5,650
Contra Costa	$ 2,915	$ 3,111	$ 2,674	$ 5,786	$ 2,871
Marin	$ 655	$ 865	$ 641	$ 1,506	$ 852
Napa	$ 219	$ 1,087	$ 429	$ 1,516	$ 1,297
San Francisco	$ 2,299	$ 2,416	$ 2,363	$ 4,778	$ 2,480
San Mateo	$ 1,440	$ 1,929	$ 1,984	$ 3,913	$ 2,473
Santa Clara	$ 3,374	$ 5,776	$ 5,118	$ 10,894	$ 7,520
Solano	$ 488	$ 1,906	$ 1,289	$ 3,195	$ 2,707
Sonoma	$ 994	$ 3,699	$ 1,319	$ 5,018	$ 4,023
REGION	**$ 14,531**	**$ 24,504**	**$ 19,899**	**$ 44,404**	**$ 29,872**

The Cost of Deferring Maintenance

Maintaining Current Expenditure Levels Will Result in Disrepair and Higher Long-Term Costs

Pavement Deterioration Curve*



Condition by Total Lane Miles

	Current (2011)	*Projected (2035)*
	49%	*39%*
	27%	*21%*
	10%	*2%*
	8%	*0%*
	6%	*38%*
TOTAL DEFERRED MAINTENANCE	*$6.0 B*	*$32.3 B*

* Please note that these data relate to only pavement, i.e., the area from curb to curb.

"What If" Scenarios for State of Repair

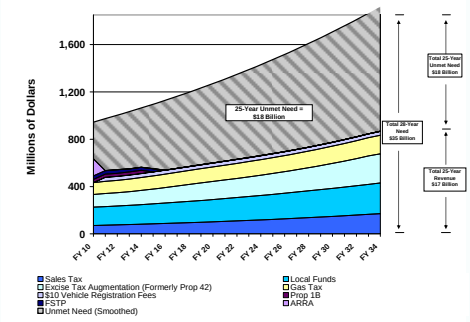
	Existing Funding	Maintain Current Pavement Condition	Desirable Funding
Average Regional PCI* in 2035	45	66	75
Pavement Condition	Poor	At Risk	Good
Average Annual Expenditure Level**	$351 million	$740 million	$975 million
Annual Expenditure/Lane Mile	$8,000	$17,000	$23,000
Increase over Existing Funding (%)	0%	110%	177%

**PCI is the Pavement Condition Index (Scale of 0 to 100, with 100 being the highest PCI).*

***Average Expenditures assume a three percent inflation rate.*

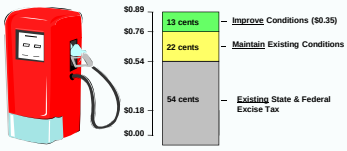
Where Will the $$$ Come From?

Bay Area Pavement and Non-Pavement Capital Revenue by Fund Sources by Year Fiscal Years 2010 - 2035



What Would It Take?

How Much Would We Need to Raise Taxes?



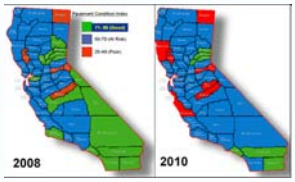
To improve the Bay Area's local streets and roads to a modest pavement condition index of 75, with a corresponding condition level for non-pavement assets, additional revenues roughly equal to a 35 cent increase in the gas tax—dedicated for local street and road maintenance – is needed. Even though there are many sources that could generate the revenue needed for roadway maintenance, this figure is meant to provide a perspective for the level of additional taxpayer investment that is needed.

Communicating the Need

- The 2010 *Pothole Report*
  - Distributed to Public & Stakeholders
  - Summary of Pavement Conditions & Trends
  - Examines Funding Challenges
  - Identifies New Approaches
  - Spotlights Trends in Technology
- Annual Press Releases
- Statewide Needs Assessment

Statewide LSR Needs Assessment

- Mirrors MTC Assessment only on a larger scale
- Conducted every two years
  - 2012 Assessment underway
- Cities, counties and RTPAs contribute financially to the effort
- Goal = inform legislature and public of the need to preserve and augment funding for LSR maintenance
- www.savecaliforniastreets.org



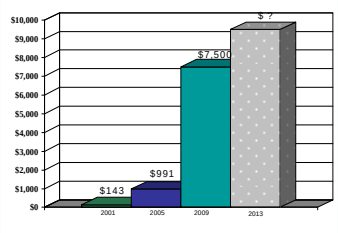
Statewide LSR Needs Assessment

- 2010 Results
  - Statewide Average PCI = 66 and declining
  - $79 B in Additional funding needed over the next 10 years for state of good repair
  - Equivalent to an additional 35 cent gas tax
- Statewide Assessment was credited with saving the HUTA (gas tax subvention) from budget cuts that would have had a devastating impact on local street & road conditions

Regional Investment Trade Offs

- $266 Billion in Transportation Revenue Estimated for the Next 30 Years
- Only $30 Billion is Flexible / Regional Discretionary
- MTC must distribute among many transportation interests – LS&R , Transit, Regional Programs, Expansion
- Trade Offs are based on Benefit Costs and Affordable State of Repair Standards
- Sustainable Communities Strategy – Requires funding investments to support areas of population growth, i.e., urban core

Impact of Asset Management on Regional Policy

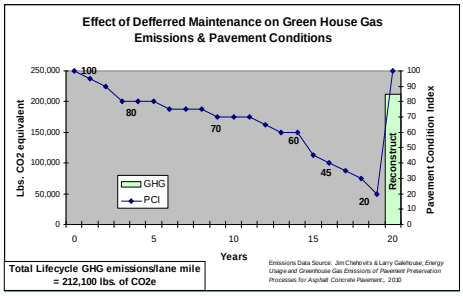


- Significant increases in regional investment in LS&R over consecutive RTPs

Environmental Sustainability

- Recent focus has also been on environmental sustainability, not just economic / financial
- Need to demonstrate how regular maintenance meets goal of environmental sustainability
- Asset management principles and techniques can help

Sustainable Maintenance Practices



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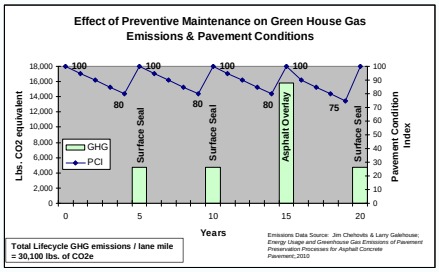

•Savings per Lane Mile by not Deferring Maintenance = 182, 000 lbs. GHG

•Equivalent to taking 15 cars off the road for a year

Sustainable Maintenance Practices Cold In Place Recycling

- MTC Set-Aside $400 Million for a Climate Initiatives Program
- The City of Napa and the County of Sonoma Received a $2M Dollar Grant for a CIR Demo Project
- Estimated Cost Savings = 40% Compared to Conventional Rehab
- Estimated GHG CO2 Emissions Savings from Project = 2,2 million lbs
  - Equivalent to taking 184 cars off the road for one year

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.

Summary

- Asset management practices are key to both economic and environmental sustainability
- Ability to inform decision-makers and the public of the benefits and costs of investment decisions will yield positive results
- LSR can compete for “Green” funds and can demonstrate the positive environmental impacts of maintaining the existing system