

# Street Talk

## Regional Pavement Quality Average Unchanged for Fifth Consecutive Year

By MTC Staff

The quality of the pavement on the Bay Area's nearly 43,000 lane-miles of local streets and roads is stuck in "fair" condition, with the typical stretch of asphalt showing serious wear and likely to require rehabilitation soon. Data released in October 2014 puts the region's 2013 pavement condition index (PCI) score at 66 out of a maximum possible 100 points, as calculated on a three-year moving average basis. This marks the fifth consecutive year the region has registered an average PCI score of 66, a reading that has not varied by more than two points since 2006.

"Restoring the Bay Area's transportation system to a state of good repair has long been one of the Commission's most important priorities, and one of its most elusive," commented MTC Chair Amy Rein Worth, who also serves as a member of the Orinda City Council. "For local streets and roads, the goal is to get every one of our cities and counties to a score of 75 or better. Maintaining a regional average of 66 can be seen as something of a partial victory, since most local governments' pavement maintenance needs have far outstripped available funds for many years. But we've also seen that big improvements are possible if local voters decide streets and roads are an important civic priority. The most complete example is El Cerrito, which passed a half-cent sales tax in 2008 to finance a very successful citywide street improvement program. Voters in Orinda and Moraga approved similar measures in 2012 and that money is now being put to work. The needle is already moving in the right direction in Moraga and I expect next year's report to show the same kind of progress in my city of Orinda."

MTC's Regional Streets and Roads Program later this year will recognize Moraga for having the best overall pavement management strategy of any jurisdiction in the Bay Area. The Contra Costa County city boosted its one-year average PCI score to 58 in 2013 from just 50 the year before. The Regional Streets and Roads Program also will recognize the San Mateo County city of Half Moon Bay for chalking up the biggest improvement in its one-year PCI score, to 68 in 2013 from 56 in 2012; and the Contra Costa

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**User Week Starts November 17, 2014**

See page 4 for details

Bay Area Jurisdictions with "Very Good" Pavement Condition		
Jurisdiction	County	2013 PCI Score
Brentwood	Contra Costa	86
Dublin	Alameda	85
El Cerrito	Contra Costa	84
Atherton	San Mateo	81
Belvedere	Marin	81
Foster City	San Mateo	81

# State Streets and Roads At Risk

By Margot Yapp, Nichols Consulting Engineers (NCE)

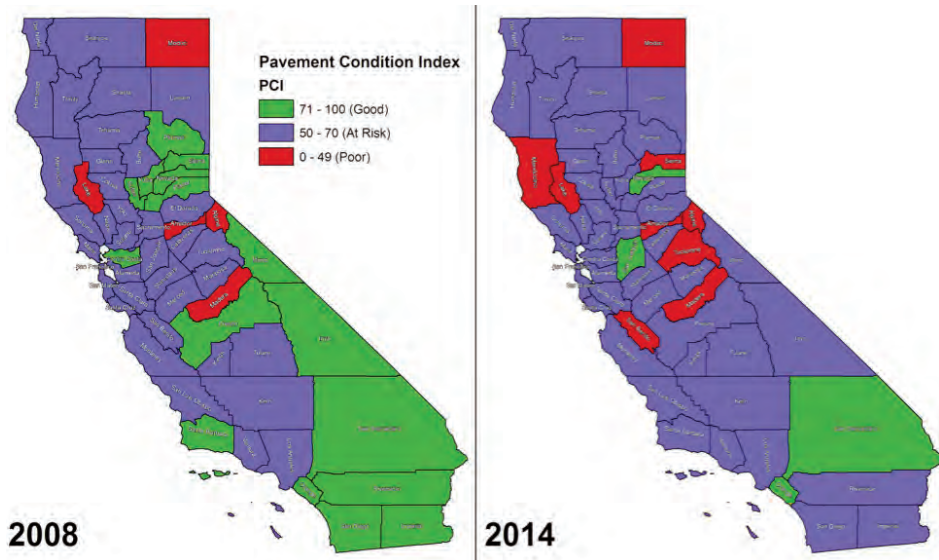
The 2014 California Local Street and Road Needs Assessment results are in: Due to an aging infrastructure, rising construction costs and budget constraints, the state's local road network is falling further into disrepair. With heavier vehicles, increasing traffic and the need to accommodate alternative modes of transportation, the demands on California's streets and roads are growing. At the same time, a growing percentage of streets and roads are in poor condition and in need of repair.

## Pavements

On a scale of zero (failed) to 100 (excellent), California's statewide average pavement condition index (PCI) deteriorated to 66 ("at risk" category) in 2014. Furthermore, 54 counties are either at risk or have poor pavements (see maps below). If current funding remains the same, the statewide condition is projected to deteriorate to a PCI of 55 by 2024. The unfunded backlog will increase from \$40 billion to \$61 billion.

It is more cost-effective to preserve and maintain roads in good condition than to let them deteriorate, since deteriorated roads are more expensive to repair in the future. Consistent with this approach, the costs developed in this study are based on achieving a roadway pavement condition of what the industry calls Best Management Practices (BMPs). This condition represents improving the pavement condition to a level where roads are most cost effective to maintain, requiring primarily preventive maintenance treatments.

Three funding scenarios were investigated to determine the impacts that different funding levels would have on the condition of the roads and the level of improvement that could be achieved in ten years. They were as follows:



1. Existing funding levels of \$1.7 billion/year
2. Funding to maintain existing conditions and a PCI of 66 (\$3.2 billion/year)
3. Funding required to achieve BMPs (\$7.3 billion/year)

The optimal scenario is to bring all pavements into a state of good repair so that best management practices can prevail. After this, it will require \$2.4 billion a year to maintain the pavements at that level.

## Safety / Traffic Components and Bridges

The transportation network also includes essential safety and traffic components such as curb ramps, sidewalks, storm drains, streetlights and signals. These components require \$31 billion over the next 10 years, and have an estimated shortfall of \$20.9 billion.

Local bridges are also an integral part of the local streets and roads infrastructure. There are 11,863 local bridges, and approximately \$4.3 billion is needed to replace or rehabilitate them. There is an estimated shortfall of \$1.3 billion.

## Total Funding Shortfall

The table below shows the total funding shortfall of \$78.3 billion over the next 10 years. Results from the previous updates are also included.

Transportation Asset	Needs (\$B)			2014		
	2008	2010	2012	Needs	Funding	Shortfall
Pavement	\$ 67.6	\$ 70.5	\$ 72.4	\$ 72.7	\$ 16.6	\$ 56.1
Essential Components	\$ 32.1	\$ 29.0	\$ 30.5	\$ 31.0	\$ 10.1	\$ 20.9
Bridges	-	\$ 3.3	\$ 4.3	\$ 4.3	\$ 3.0	\$ 1.3
<b>Totals</b>	<b>\$ 99.7</b>	<b>\$102.8</b>	<b>\$107.2</b>	<b>\$108.0</b>	<b>\$ 29.7</b>	<b>\$ 78.3</b>

## What are the Solutions?

To bring the state's local street and road system to a best management practice level, approximately \$56.1 billion of additional funding is needed for pavement alone and a total of \$78.3 billion including essential components and bridges over the next 10 years. The sooner this is accomplished, the less funding will be required in the future.

To bring the local system back into a cost-effective condition, thereby preserving the public's investment and stopping further costly deterioration, \$7.8 billion annually in new funds would be needed.

To download the full report and read more about how local agencies are working to overcome funding challenges, please visit:

[www.savecaliforniastreet.org](http://www.savecaliforniastreet.org)

# Software Updates and News

By Sui Tan, MTC



## StreetSaver Plus Asset Management

StreetSaver Plus, the new asset management module, is scheduled for release by the November User Week.

The “Plus” module includes roadway assets including traffic signs, traffic signals, street lights, pavement marking, curbs and gutters, curb ramps, sidewalks, storm drains and culverts.

The first asset to be released is **StreetSaver Plus – Sign**, which will assist local agencies in meeting a new Federal Highway Administration (FHWA) mandate. According to FHWA, local agencies have until June 14, 2014 to implement and continue to use an assessment or management method that is designed to maintain regulatory and warning sign retro-reflectivity at or above the minimum levels in Table 2A-3 of the 2009 Manual on Uniform Traffic Control Devices (MUTCD).

**StreetSaver Plus – Sign** will incorporate both assessment and manage-

ment methods. Users will be able to inventory, track condition, and assess maintenance needs. Similar to the PCI concept, signs and other roadway assets will use Expected Service Life (ESL) and Remaining Service Life (RSL) to trigger replacement and maintenance work.

For example, as shown in Figure 1, a high RSL trigger percentage – for instance, when an engineering grade sign reaches 70 percent of RSL – will generate a “Clean” work type, as shown in Figure 2.

Pricing for the StreetSaver Plus will be effective on November 1, 2014, and will be based on centerline miles, categorized into four tiers. It is anticipated that the annual subscription fees will vary by agency based on mileage. This pricing includes all assets that we will be rolling out throughout the years. During the first year introductory period, a 30-percent-off discount will be offered to existing and new users.

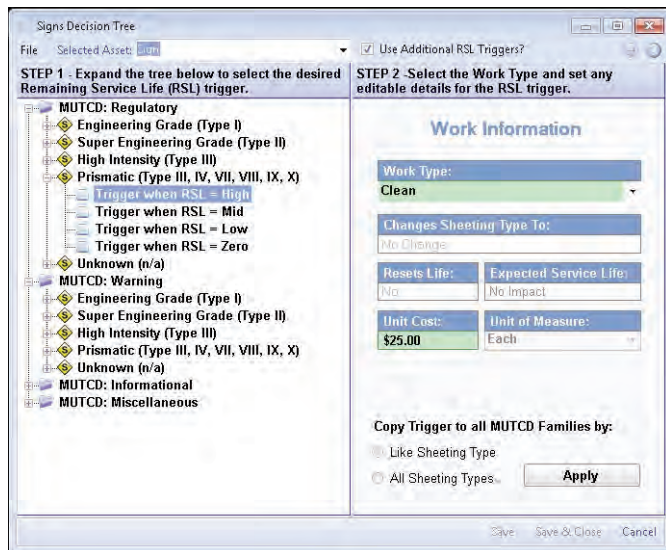


Figure 2. Sign-decision tree based on various RSL trigger values.



## StreetSaver/ MobileRater Enhancements

While the majority of the effort has been focused on StreetSaver Plus, our developers are also busy developing and enhancing StreetSaver. A few of the improvements are new enhancements on the Target-Driven scenario by functional class, PCI breakpoints, and GIS Toolbox. We are also working on splitting weathering distress from raveling

to comply with ASTM D6433 standards. This will allow better identification of distress due to loss of fine aggregate, coarse aggregate and asphalt binder. Other software progress includes PCI increase due to surface treatment.

MobileRater is being enhanced to track GPS location of inspection units and generate a “hot spot” map using GIS Toolbox in StreetSaver.

MUTCD Family	Sign Sheeting Type	ESL	High Trigger	Mid Trigger	Low Trigger	Last Modified	
			By %	By Year	By %	By Year	
Regulatory	Engineering Grade (Type I)	7	70	4.9	50	3.0	8/13/2014 3:34 PM
Regulatory	Super Engineering Grade (Type II)	10	70	7.0	5.0	3.0	8/13/2014 3:34 PM
Regulatory	High Intensity (Type III)	12	70	8.4	6.0	3.6	8/13/2014 3:34 PM
Regulatory	Prismatic (Type III, IV, VII, VIII, IX, X)	12	70	8.4	6.0	3.6	8/13/2014 3:34 PM
Regulatory	Unknown (n/a)	7	70	4.9	3.5	2.1	8/13/2014 3:34 PM
Warning	Engineering Grade (Type I)	7	70	4.9	5.0	3.5	8/13/2014 3:34 PM
Warning	Super Engineering Grade (Type II)	10	70	7.0	5.0	3.0	8/13/2014 3:34 PM
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Figure 1. Maintenance needs are triggered by setting high, mid, low RSL values.

## Regional Pavement

(Continued from page 1)

County city of Brentwood, whose one-year average PCI score of 86 is the highest of any Bay Area jurisdiction.

PCI scores of 90 or higher are considered “excellent.” These are newly built or resurfaced streets that show little or no distress. Pavement with a PCI score in the 80 to 89 range is considered “very good,” and shows only slight or moderate distress, requiring primarily preventive maintenance. The “good” category ranges from 70 to 79, while streets with PCI scores in the “fair” (60-69) range are becoming worn to the point where rehabilitation may be needed to prevent rapid deterioration. Because major repairs cost five to 10 times more than routine maintenance, these streets are at an especially critical stage. Roadways with PCI scores of 50 to 59 are deemed “at-risk,” while those with PCI scores of 25 to 49 are considered “poor.” These roads require major rehabilitation or reconstruction. Pavement with a PCI score below 25 is considered “failed.” These roads are difficult to drive on and need reconstruction.

The lowest-ranked pavement in the Bay Area was found in the Marin County city of Larkspur and the Napa County city of St. Helena, each of which recorded a PCI score of 40 for 2011-13, down two points from 42 during the 2010-12 period.

In addition to Larkspur and St. Helena, other jurisdictions with three-year average PCI scores below the 60-point threshold include Albany, Belmont, Benicia, Berkeley, Calistoga, Cotati, East Palo Alto, Millbrae, Moraga, Orinda, Pacifica, Petaluma, Rio Vista, San Anselmo, San Leandro, Vallejo, and unincorporated Marin, Napa and Sonoma counties.

The complete 2013 Bay Area Pavement Conditions Summary — including

percentages of local roadways in “excellent” or “very good” and “poor” or “failed” condition, and a listing of average PCI scores for the arterials, collector roadways and residential streets — in all Bay Area counties and cities is available at:

[mtc.ca.gov/news/street\\_fight](http://mtc.ca.gov/news/street_fight)



*El Cerrito maintained a PCI of 84 over the past two years.*

## Street Talk



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## Upcoming Events

### StreetSaver User Week November 17 – 20, 2014

*Technology Transfer Workshop:  
Maintenance & Safety Training and  
Technical Assistance to Meet MAP-21 Goals*

Monday, November 17  
8:30 a.m. to 12 noon  
MetroCenter, 1st Floor, Auditorium  
101 Eighth Street, Oakland 94607

*General Users Meeting*  
Monday, November 17  
1 to 4 p.m.  
MetroCenter, 1st Floor, Auditorium  
101 Eighth Street, Oakland 94607

*Workshop I: Maintaining Traffic Sign  
Retroreflectivity at Required Levels*  
Tuesday, November 18  
8:30 a.m. to 4 p.m.  
Alameda County Conference Center  
Oakland Room (4th Floor)  
125 12th Street, Oakland, CA 94607

*Workshop II: Pavement Distress Survey:*  
Tuesday, November 18  
8:30 a.m. to 4 p.m.  
MetroCenter, 1st Floor, Auditorium  
101 Eighth Street, Oakland 94607

*Workshop III: Computer Training -  
StreetSaver® Online v9.0 - Essential Skills*  
Wednesday, November 19  
8:30 a.m. to 4 p.m.  
Alameda Conference Center, 4th Floor  
Fremont Room  
125 12th Street, Suite 400  
Oakland 94607

*Workshop IV: Computer Training -  
StreetSaver® Online v9.0 - Budget Analysis*  
Thursday, November 20  
1 to 4 p.m..  
Alameda Conference Center, 4th Floor  
Fremont Room  
125 12th Street, Suite 400  
Oakland 94607

### Next User Week: Spring 2015

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for more information on User Week.