California Statewide Local Streets and Roads Needs Assessment

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Executive Summary

California's local street and road system is reaching a point of crisis. City streets and county roads are where every trip begins and ends. Whether traveling by bike, bus, rail, truck or family automobile, Californians need the local system.

As the first comprehensive statewide study of California's local street and road system, this report provides critical analysis and information on the local transportation network's condition and funding needs.

The study's objective was to fully assess the condition of the local system and complete the overall transportation-funding picture for California's transportation network. We wanted answers to the following: What are the pavement conditions of local streets and roads? What will it cost to bring pavements to a Best Management Practice (BMP) or most cost-effective condition? How much will it cost to maintain them once we achieve the BMP or optimal pavement condition? What are the needs for the essential components to a functioning system? Is there a funding shortfall? If so, what is it? What are the solutions? This study collected existing road condition information to determine the future funding needs necessary to maintain the system in good condition.

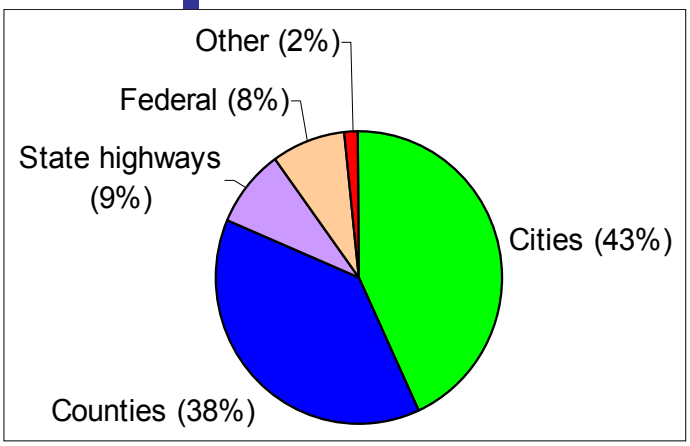

Figure 1. Breakdown of Maintained Centerline Miles

As owners and operators of 81 percent of the state's roads (Figure 1), cities and counties found that this study was of critical importance for several reasons. While federal and state governments' regularly assess their system needs, no such data existed for the local component of the state's transportation network. Historically, statewide transportation funding investment decisions have not been based on local pavement condition data, or adequate recognition for the local system. Further, recent actions to remove city and county discretion over federal and state funding have diminished resources available to the local system.

Our goal is to use the findings of this study to educate policymakers at all levels of government about the infrastructure investments needed to provide California with a seamless transportation system. The findings of this study will provide credible and defensible analysis to support a dedicated, stable funding source for maintaining the local system at an optimum level. It will also provide for the most effective and efficient investment of public funds.

The study surveyed all of California's 58 counties and 478 cities in 2007-08. The response was outstanding. Information collected resulted in capturing data from more than 93% of the state's local streets and roads. Furthermore, since the majority of the data submitted came from recognized pavement management systems, the accuracy of the data is very high. Where no data existed, models were developed, tested, and used to estimate the pavement condition and funding needs.

The results show that California's local streets and roads are on the edge of a cliff. On a scale of zero (failed) to 100 (excellent), the statewide average pavement condition index (PCI) is 68 ("at risk category"). If current funding remains the same, the statewide condition

is projected to deteriorate to a PCI of 58 in 10 years, and further to 48 ("poor" category) by 2033 (see Figure 2). Even more critical, the unfunded backlog will more than double from $37 billion to $79 billion by 2033.

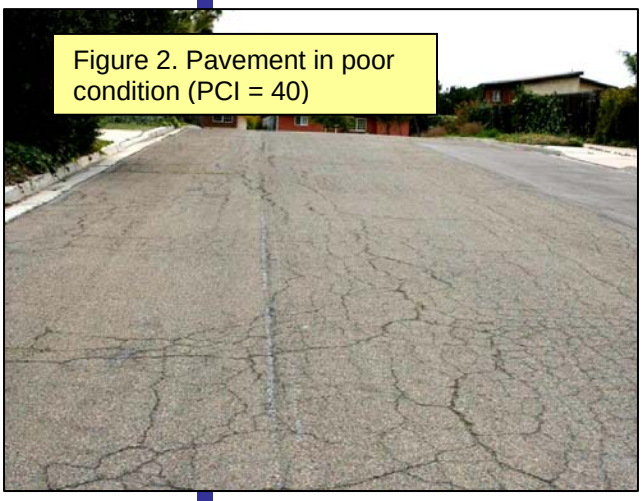

Figure 2. Pavement in poor condition (PCI = 40)

Following is further information and analysis of the pavement condition and critical components necessary for a functioning system, including safety, traffic, and regulatory components.

To bring just the pavement condition of the state's local streets and roads to a level where the taxpayer's money can be spent cost-effectively, we will need approximately $51.7 billion of additional funding.

To spend the taxpayer's money cost-effectively, it makes more sense to preserve and maintain our roads in good condition than to let them deteriorate, which will only make it more costly in the future. Consistent with that 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 roadway condition to a level where roads need preventative maintenance treatments (i.e., slurry seals, chip seals, thin overlays) that have the least impact to the public's mobility and commerce. Further, these treatment types are more environmentally friendly than the next level of construction that would be required (i.e. rehabilitation and reconstruction).

The importance of this approach is significant. As roadway pavement conditions deteriorate, the cost to repair them increases exponentially. For example, it costs twelve times less to maintain a BMP pavement compared to a pavement that is at the end of its service life. Even a modest resurfacing is four times costlier than a pavement in the BMP condition. With counties and cities on fixed budgets, employing maintenance practices consistent with BMPs results in treating four to twelve times more road area. By bringing the roads to BMP conditions, cities and counties will be able to maintain streets and roads at the most cost-effective level. It is a goal that is not only optimal, but also necessary.

This study helps answer the following key questions:

What are the pavement conditions of local streets and roads?

California's local streets and roads are on the edge. Currently at a PCI of 68, the pavement condition will sink to 48 (poor condition) by 2033 based on existing funding levels available to cities and counties.

What will it cost to bring pavements to a BMP or most cost-effective condition?

It will cost $67.6 billion to reach BMP in 10 years.

How much will it cost to maintain them once we achieve the BMP or optimal pavement condition?

Once the BMP condition is reached, it will cost approximately $1.8 billion a year to maintain it at that condition.

What are the needs for the essential components to a functioning system?

The transportation network includes essential safety and traffic components such as curb ramps, sidewalks, storm drains, streetlights and signals. These components require $32.1 billion over the next 10 years.

Is there a funding shortfall? If so, what is it?

Yes. The table below shows the pavement and essential component shortfall of $71.4 billion over the next 10 years.

Summary of 10 Year Needs and Shortfall (2008 $Billion)

Transportation Asset	Needs	Funding	Shortfall
Pavements	$ 67.6	$ 15.9	$ 51.7
Essential Components	$ 32.1	$ 12.4	$ 19.7
Totals	**$ 99.7**	**$ 28.3**	**$ 71.4**

What are the Solutions?

To bring the state's local street and road system to a best management practice level where the taxpayer's money can be spent cost effectively, we will need up to approximately $51.7 billion of additional funding for pavement alone and more than $71 billion, including the essential components, for a functioning system over the next 10 years. The sooner this is accomplished, the less funding will be required in the future.

The conclusions from this study are inescapable. Given existing funding levels available to cities and counties for maintaining the local system, California's local streets and roads will deteriorate rapidly within the next 25 years to a poor condition. Unless this condition is addressed, costs to maintain our local system will only continue to grow, while the quality of California's local transportation network deteriorates.

In order to bring the local system back into a cost-effective condition, thereby preserving the public's $271 billion pavement investment and stopping further costly deterioration, at least $7 billion annually in new money going directly to cities and counties is needed to stop the further decline and deterioration of our streets and roads. This is equivalent to about a 38-cent gas tax increase. It is imperative that cities and counties receive a stable and dedicated revenue stream for cost effective maintenance of the local system to avoid this crisis.