



ALAMEDA COUNTY TRANSPORTATION COMMISSION
2014 LOS Monitoring Results



A presentation to ACTAC
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July 10, 2014

Presentation Overview

2

- Background
- Alameda County LOS Monitoring Program
- Commercial Travel Time Data
- Highlights of 2014 Monitoring Results
- Summary of Trends Observed
- Conclusions and Next Steps

Background: CMP Legislation

3

- State CMP legislation requires the CMAs to:
 - Designate a CMP roadway network
 - Monitor the level of service
 - If the LOS Standard (LOS E) is not met, develop deficiency plans to improve the deficient segment.
- As Alameda County's CMA, Alameda CTC has been performing the LOS Monitoring on the CMP network since 1991

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Alameda County LOS Monitoring Program

4

- Forward looking program expanding beyond legislative requirements
- Network – Two Tiers (323 miles)
 - Tier 1 (232 miles) – for conformity (freeways, state routes and principal arterials)
 - Tier 2 (90 miles) – for informational purpose (additional Arterials and Major Collectors since 2012)
 - Additional monitoring –HOV and three Bay crossing bridges

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CMP Network

5

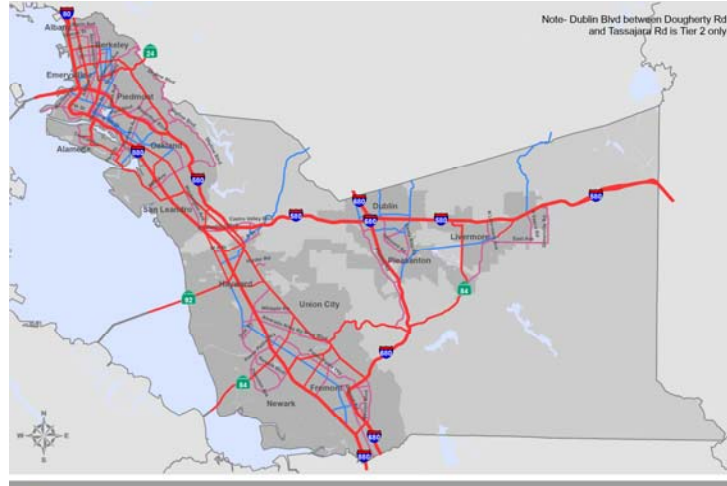


Figure 1: Designated Countywide System Map

Alameda County LOS Monitoring Program

6

- Data Collection Methods
 - Floating Car Surveys
 - Six runs by someone driving through the regular traffic to estimate travel time
 - Typically follows the rules of the road
 - Challenges
 - Resource intensive for a very small amount of data
 - Potential manual error
 - Commercial Travel Time Data (INRIX is used)

Data Collection Methods

7

| CMP Network | Miles/# Number | 2012 Data Collection | 2014 Data Collection |
|------------------------|----------------|--------------------------------|--|
| Tier 1 Freeways | 134 | Floating Car Surveys | Commercial Data* |
| Tier 1 Arterials | 98 | Floating Car Surveys | Floating Car Surveys |
| Tier 1 Ramp Connectors | 23 ramps | Floating Car Surveys | Commercial Data* |
| Tier 2 Arterials | 90 | Floating Car Surveys | 65 miles INRIX/25 miles Floating Car Surveys |
| Bay Crossing Bridges | 3 bridges | From Caltrans/MTC as available | Commercial Data |
| HOV/Express Lanes | 84 (one way) | Not Monitored | Floating Car Surveys |

* - data for one segment collected using floating car surveys

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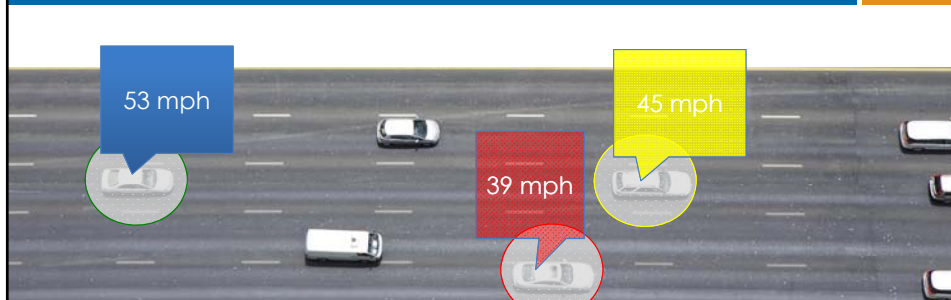
Commercial Travel Time Data: Sources

8



Commercial Data: Turning Probe Data Into Information

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Individual probes are measured and transformed into an average speed over a segment at a given time...

46 mph

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Benefits and Challenges of Commercial Data

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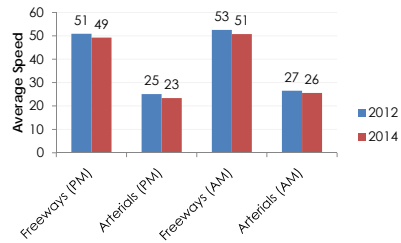
- Benefits
 - Greater accuracy
 - Current approaches not statistically sound
 - More vehicles x more times x more days
 - Improved reasonableness found in 2014 from commercial data
 - Deeper insights
 - Understand reliability
 - Reduced costs
 - Travel time runs are expensive
 - Probe data is cheaper for much greater volume
- Challenges
 - Not adequate coverage on arterials
 - Exclusive HOV data not available

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2014 LOS Results - Highlights

11

- General decline in speed between 2012 and 2014
 - Likely due to a combination of effects of improving economy and construction activities
 - Key points to consider in reviewing results
 - Improving economy
 - Construction underway and completed since 2012
 - Change in data collection methodology
- Completed projects since 2014 showed improved network performance
 - Caldecott Tunnel
 - Hayward Loop

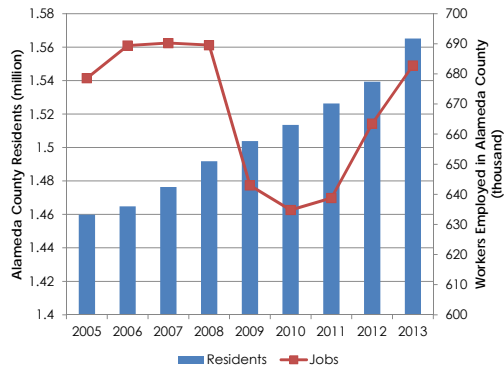
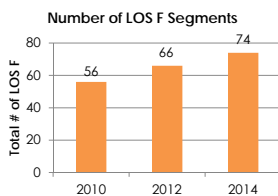


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Observed Trends

12

- Increased population and improving economy – more traffic and more congested roads

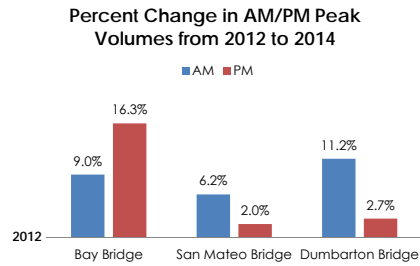
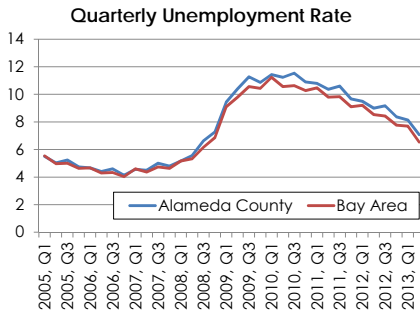


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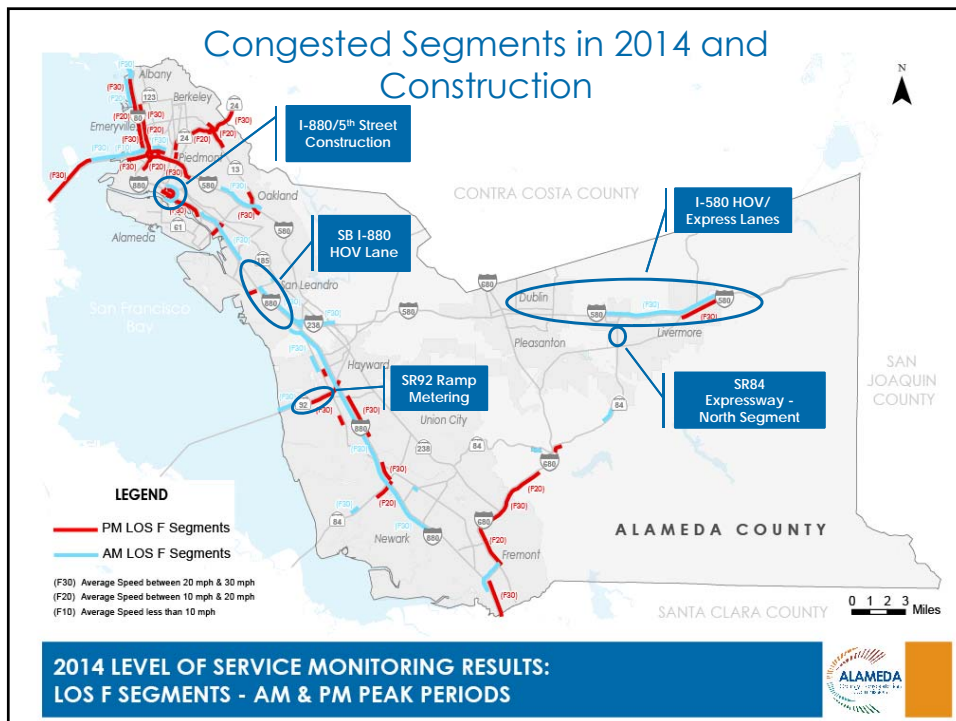
Observed Trends

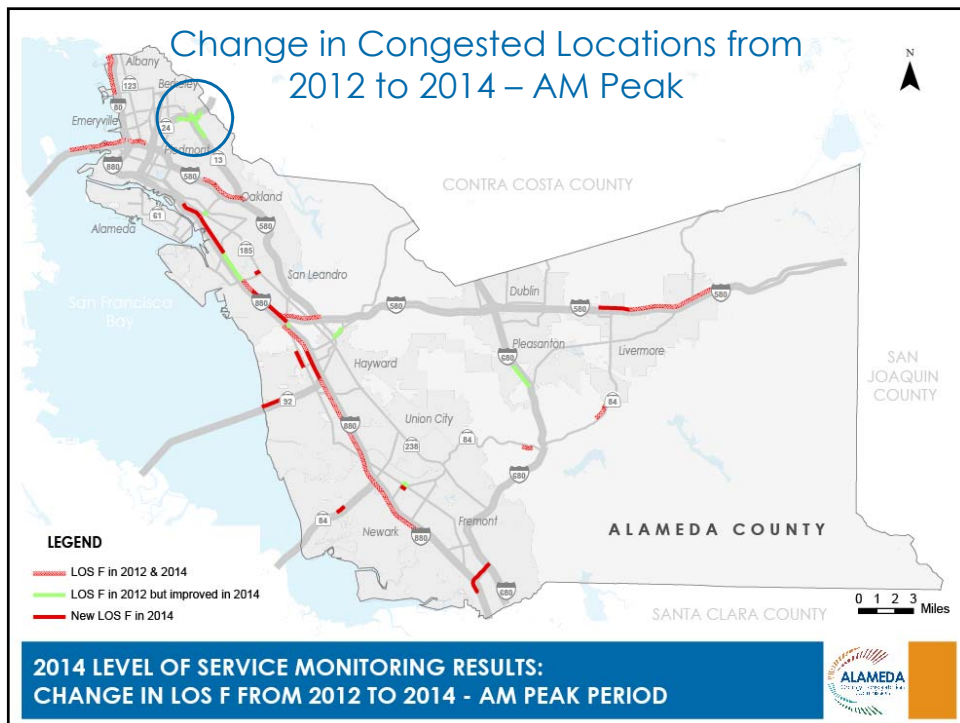
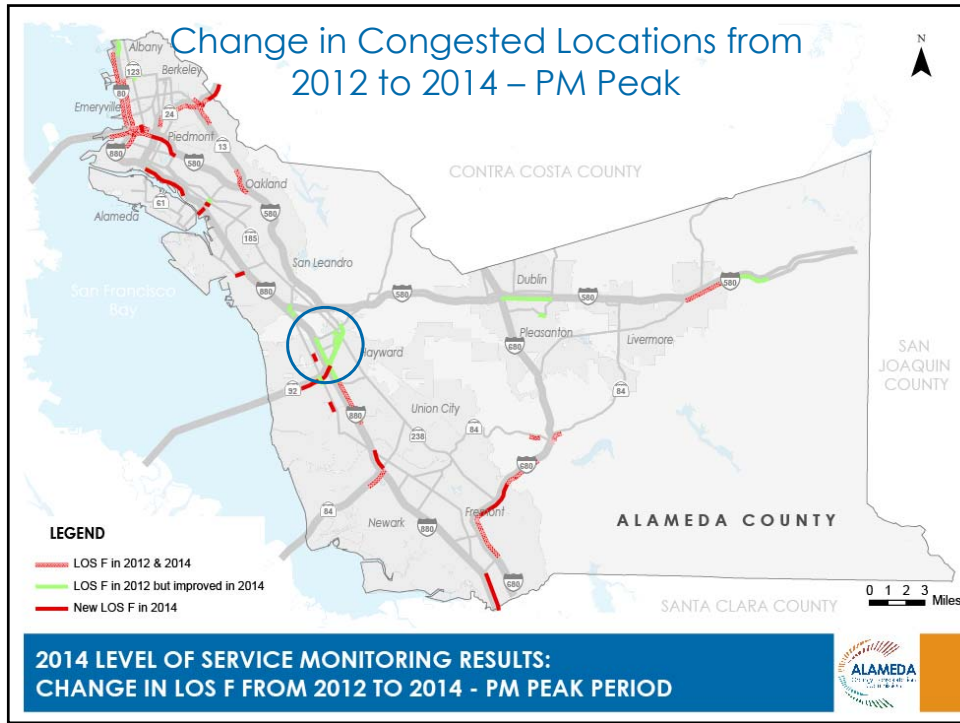
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- Economic recovery slow in Alameda County compared to the region
 - increased commute trips to other counties – more congestion on county regional connectors



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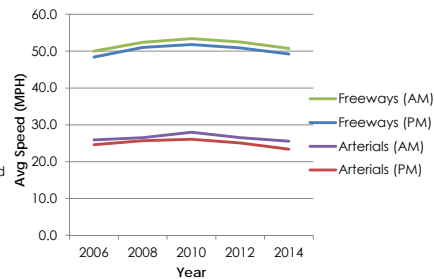
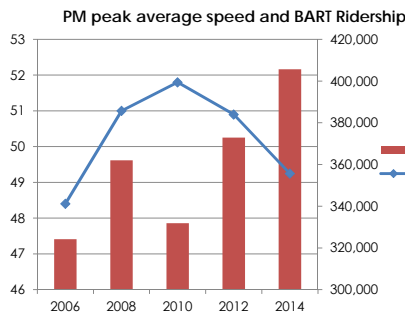


Observed Trends

17

- Increased BART ridership is seen when roadway congestion increases

Average Speeds on CMP Network



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Planned Improvements

18

Impacted Segments Showing LOS F in 2014 and Options for Potential Improvements

Construction Underway

| | |
|--|--|
| I-80 segments | I-80 ICM project |
| I-880 segments in the North and Central County | I-880/5 th Avenue Retrofit SB I-880 HOV lane from Hegenberger to Marina Blvd |
| I-580 in East County | I-580 HOV/Express Lanes |

In Project Development Phase/Programmed/Planned/Being Studied

| | |
|--------------------------------|--|
| I-880 Segments | I-880 Integrated Corridor Management I-880 Express Lanes |
| Northbound I-680 | HOV/HOT lane implementation |
| Eastbound I-580 in East County | Eastbound truck climbing lane |
| Eastbound SR 84 | Route 84 Expressway Safety Improvements by Caltrans (SHOPP) Truck Climbing Lanes on Pigeon Pass Improvements identified in the Triangle Study |

2014 Transportation Expenditure Plan

Supports many projects and programs across the county

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Modal Plans: Multipronged Comprehensive Solutions

19

- Countywide Modal Plans will study the county's multimodal transportation issues comprehensively to effectively address them
- Goods Movement Plan
 - Will also study and address the key congested goods movement corridors – I-880 and I-580



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Modal Plans: Multipronged Comprehensive Solutions

20

- Transit Plan
 - Will study all transit operators in the county comprehensively and develop strategies
 - Improving transit trips is key to addressing congestion issues for sustainable transportation
- Multimodal Arterial Plan
 - Arterials support all modes.
 - This plan will study the county major arterials to identify strategies and solutions for improving multimodal connectivity, access and mobility

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Next Steps

21

- July 11, 2014- Deficiency Determination
- July 2014 – PPLC and Commission presentation
- September 2014 - Final Report
- 2014 CMP Update will explore -
 - Expanding CMP network including major rural corridors for informational monitoring
 - Enhanced Use of Commercial Data

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22

Questions?

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