This section summarizes observations related to Conformity based on the 2012 LOS Monitoring results. It also takes the next step in reviewing the congested segments on the CMP network in both p.m. and a.m. peak periods, and identifies potential improvements for these segments in terms of improvement projects or studies either underway or planned; if not, whether the segment needs to be further investigated.

As presented in the prior sections of this report, congestion on the CMP network has increased in 2012 compared to 2010. It is shown in the increased number of LOS F segments from 2010 and decreased average speed on freeways and arterials. Some areas that showed improvements appear to be related to the improvement projects completed since 2010 after the LOS monitoring was completed. It is concluded that the congestion increase could be likely due to the economy that is beginning to show improvement combined with many construction activities occurring across the county.

Analysis of trend in performance since 1991 shows that congestion on the Alameda County CMP network is stable while VMT has increased. Further, as employment increases, freeway speed decreases resulting in a corresponding increase in congestion. The relationship between arterial congestion, speed and employment does not appear to be as clear, where speeds over time have not changed compared to the fluctuations in the economy (i.e., employment) over time, indicates a need for further study of arterials for a better understanding of countywide arterial performance.

## **CMP CONFORMITY**

In order to meet the CMP legislative requirements, the Alameda County LOS Monitoring Study uses the results from the weekday p.m. peak period for Tier 1 roadways for CMP Conformity purposes. There were 39 CMP segments operating at LOS F conditions in 2012 during the p.m. peak period. Of these 39 segments, 20 were exempt from deficiency plan requirements because they were either grandfathered in the 1991 LOS surveys or impacted by construction, which is one of the applicable exemptions under the CMP legislation. Of the remaining 19 segments, four were functioning at LOS F for the first time and 15 were found at LOS F in previous surveys. Based on the select link analysis performed on these 19 LOS segments using the Alameda Countywide Travel Demand Model, no segments were identified as deficient in 2012 after applying the statutorily applicable exemptions.

## POTENTIAL IMPROVEMENTS RELATED TO THE CONGESTED ROADWAYS

To improve the overall CMP network performance, the congested segments need to be analyzed and options for improvements need to be identified. There are many projects that are currently underway or planned would potentially improve the congested segments. For the congested segments that appear to be new bottlenecks, potential causes for them will be investigated further.

Projects that are in progress or planned that would potentially improve the congested segments including their status are summarized below:

- LOS F conditions on I-80 segments in the vicinity of the Bay Bridge are probably due to construction on the Bay Bridge, which is anticipated to be completed by end of 2013. In addition to this regionally significant project, the I-80 ICM project implementation that is currently underway is also expected to improve the performance of the corridor upon completion.
- There are many projects under construction on or near I-880 including the I-880/5<sup>th</sup> Avenue Retrofit Project and I-880/High Street Retrofit Project in North County, and SR 238/Foothill Operational improvements in Central County. While the two projects on I-880 are scheduled to be completed by summer of 2014, SR 238/Foothill Operational Improvements is anticipated to be completed by summer 2013. It is expected that the general performance of the freeway will be improved once construction is completed.
- Congestion along I-680 northbound will likely be improved with the implementation of the HOV/HOT project that is currently in environmental phase.
- Conversion of the existing HOV lanes to HOT lanes along I-580 in East County is

currently in environmental phase. Congestion experienced along eastbound I-580 in East County will likely be improved upon completion of this project.

- SR 84 eastbound from Pleasanton-Sunol Road to Vallecitos Nuclear Center entrance could be improved by projects identified in the SR 84 corridor including Tri-Valley Triangle Study. The proposed improvements include Caltrans SHOPP projects, which are safety related, and the addition of truck climbing lanes on Pigeon Pass.
- Performance of SR 24 is expected to be improved with the completion of Caldecott Tunnel 4<sup>th</sup> Bore Project, which is scheduled to be in late 2013.

Regarding new bottlenecks identified, they will be either investigated as part of an ongoing study or future new study. Congestion along southbound I-680 between I-580 and Sunol Boulevard is being studied as part of the Express Lane Evaluation Study. Potential causes of other two bottlenecks, northbound I-880 between Alvarado Niles and A Street and eastbound I-580 between 1<sup>st</sup> Street and N. Flynn Road, will be investigated further.

Table 17 lists specific congested roadways and potential improvements either underway, planned, or being studied on those roadways. Also identified are the segments that are currently operating at LOS F where additional study is needed to determine the cause. For projects under construction, the level of improvement will be monitored in the next LOS monitoring cycle.

## Table 17: Impacted Segments Showing LOS F in 2012 and Options for Potential Improvements

Name of Congested Roadway	Name of the Project or Study
Construction Underway or Completed Recently	
I-80 Segments	Bay Bridge construction and recently begun I- 80 ICM project
SR 24 Segments	Caldecott Tunnel 4 <sup>th</sup> Bore project
I-880 in the North and Central County	I-880/5 <sup>th</sup> Avenue Retrofit
	I-880/High Street Improvements
	SR 238 (Foothill) Improvements
In Project Development Phase/Programmed/Planned/Being Studied	
I-880 Segments	I-880 Integrated Corridor Management
Northbound I-680	HOV/HOT lane implementation
Eastbound and Westbound I-580 in East	HOV to HOT lane conversion
County	Eastbound truck climbing lane
Southbound I-680 north of Sunol	I-680 Express Lane Evaluation (After) Study
Eastbound SR 84 near Sunol	
Eastbound SR 84 near Vallecitos Nuclear	Safety Improvements by Caltrans (SHOPP)
Center	Truck Climbing Lanes on Pigeon Pass
	Improvements identified in the Triangle Study
	Route 84 Express Way
To be Investigated	
Northbound I-880 congestion between	Central and South County LATIP projects
Alvarado-Niles and A Street	
Eastbound I-580 congestion between 1st Street and N. Flynn Road	Eastbound truck climbing lane

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