District 03 Mobility Performance Report 2017 First Quarter

DEPARTMENT OF TRANSPORTATION

April 26, 2017 Office of Freeway Operations

District 03 Mobility Performance Report

2017 First Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 3 contains eleven counties that are located in northern California. Most of the congestion and delay takes place in the urbanized Sacramento, Yolo and Placer counties.

The Mobility Performance Report quarterly analysis compares information with the past year and the previous quarter using the following performance measures:

- Bottleneck Locations
- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on data collected every day of the quarter, twenty—four hours a day, by automated vehicle detector stations deployed on urban-area freeways where congestion is regularly experienced. The Mobility Performance Report (MPR) presents congestion information for two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon engineering experience and District 3 Office of Freeway Operations input.

FINDINGS

In the 2017 First Quarter, total delay equaled 1.1 million vehicle hours of delay (VHD) at the 35 mph speed threshold, and 3.2 million VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 15,000 VHD at 35 mph, and 44,000 VHD at 60 mph.

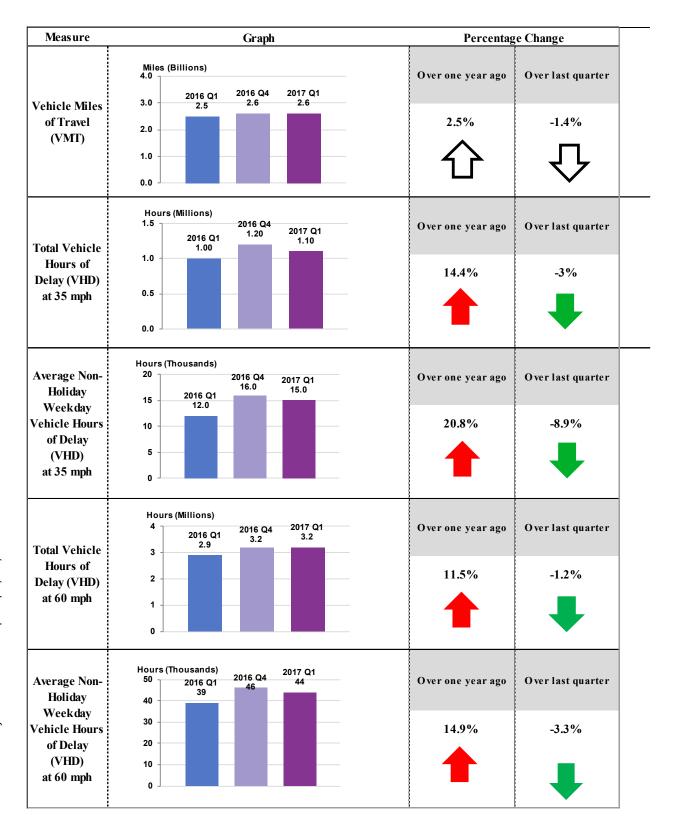
Top Ten Bottlenecks for 2017 First Quarter

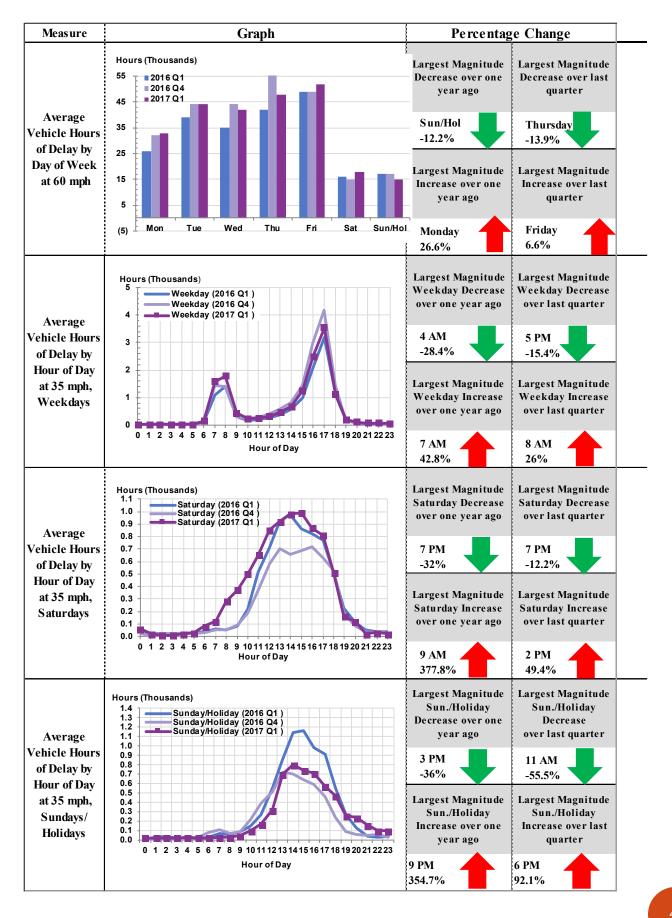
| Fwy | Location | Shift | Abs PM | CA PM | # Days Active | Average Extent (Miles) | Total Delay (veh-hrs) | Total Duration (minutes) |
|--------|--------------------|-------|---------|----------|------------------|------------------------------|-----------------------------|--------------------------|
| SR51-N | Elvas UP | PM | 2.4 | 2.4 | 58 | 2.1 | 40,232 | 6,665 |
| SR99-S | WB Consumnes River | PM | 290.766 | 16.321 | 56 | 2.8 | 33,040 | 7,025 |
| 180-E | E of CR 105d | PM | 76.688 | 4.501 | 36 | 2.8 | 31,221 | 4,925 |
| US50-E | Stockton Blvd. | PM | 6.345 | R.711 | 57 | 1.5 | 30,752 | 7,650 |
| SR70-E | North Beale Road | PM | 20.125 | 13.5 | 43 | 3.8 | 30,248 | 5,395 |
| 15-N | L St. | PM | 518.864 | 23.571 | 62 | 1.1 | 28,631 | 8,175 |
| SR51-S | EB Exposition Bl. | PM | 3.32 | 3.32 | 62 | 0.9 | 24,310 | 12,010 |
| SR51-N | SB Watt Ave. | PM | 7.85 | 7.85 | 44 | 2.6 | 23,031 | 5,655 |
| 15-S | L St. | PM | 518.824 | 23.531 | 56 | 1.6 | 22,165 | 6,200 |
| SR51-N | North of A St. | PM | 2 | 2 | 61 | 1.4 | 18,775 | 5,195 |

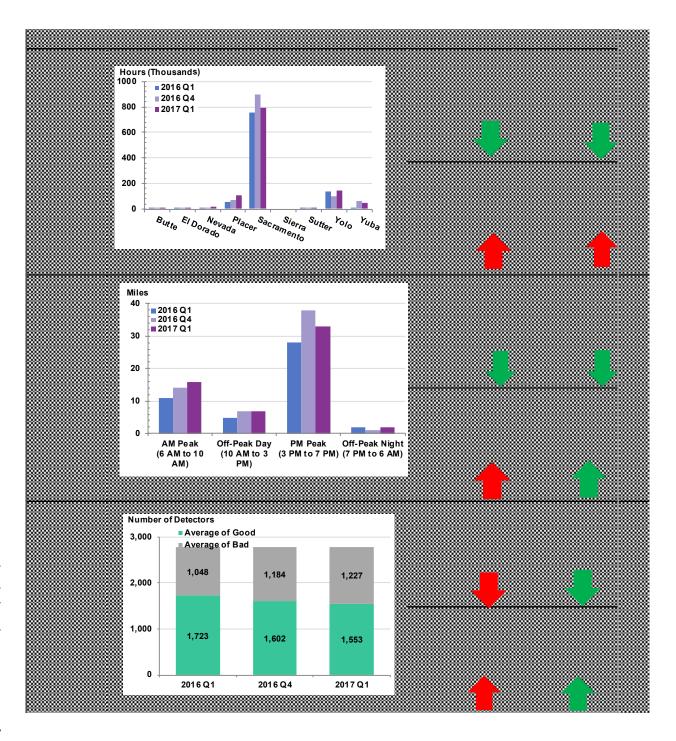
Note:

- 1. For the table above, the quarterly delay calculation was based upon a 60 mph threshold, for the a.m. or p.m. weekday peak period.
- 2. Caltrans District 3, has plans to construct High Occupancy Vehicle (HOV) lanes on I-5, US-50, and SR-51 near downtown Sacramento. These projects are expected to reduce delay at nearby bottlenecks identified above. However, these HOV lane projects are funded for Plans Specifications and Estimate (PS&E) only; construction funds are not available at this time.

Quarterly Mobility Statistics







Note: As is identified by the detector health graph above, the District's detector health is generally deteriorating. Caltrans has a Traffic Monitoring Station project (EA: 3F840) under construction to help improve detector health. Two other projects, in the programing phase, will cover locations that were missed by previous projects.

| Congestion by Route | | | | | | | | | | | | |
|---------------------|------------|-------------------------------------|-----------|-----------|-------------------------------|------------|-------------------------------|------------|---------|---------|---------|--|
| | | Vehicle Hours of Delay at 35 mph | | | Difference 2017 Q1-2016 Q1 | | Difference 2017 Q1-2016 Q4 | | Rank | | | |
| Route | County | 2016 Q1 | 2016 Q4 | 2017 Q1 | Absolute | Percentage | Absolute | Percentage | 2016 Q1 | 2016 Q4 | 2017 Q1 | |
| SR51 | Sacramento | 282,809 | 314,222 | 238,531 | -44,278 | -15.7% | -75,691 | -24.1% | 1 | 1 | 1 | |
| I5 | Sacramento | 105,505 | 161,580 | 184,111 | 78,606 | 74.5% | 22,531 | 13.9% | 4 | 4 | 2 | |
| SR99 | Sacramento | 142,885 | 184,219 | 180,424 | 37,539 | 26.3% | -3,794 | -2.1% | 3 | 2 | 3 | |
| US50 | Sacramento | 163,194 | 174,240 | 144,049 | -19,145 | -11.7% | -30,191 | -17.3% | 2 | 3 | 4 | |
| I80 | Yolo | 81,245 | 60,346 | 110,575 | 29,330 | 36.1% | 50,229 | 83.2% | 5 | 6 | 5 | |
| I80 | Placer | 42,070 | 45,241 | 73,020 | 30,950 | 73.6% | 27,779 | 61.4% | 6 | 7 | 6 | |
| SR70 | Yuba | 11,606 | 66,610 | 46,560 | 34,954 | 301.2% | -20,050 | -30.1% | 13 | 5 | 7 | |
| SR65 | Placer | 15,667 | 25,869 | 32,692 | 17,025 | 108.7% | 6,823 | 26.4% | 10 | 10 | 8 | |
| US50 | Yolo | 35,655 | 37,206 | 30,713 | -4,942 | -13.9% | -6,493 | -17.5% | 7 | 9 | 9 | |
| I80 | Sacramento | 34,736 | 42,610 | 30,623 | -4,113 | -11.8% | -11,987 | -28.1% | 8 | 8 | 10 | |
| I80 | Nevada | 13,518 | 9,492 | 20,567 | 7,049 | 52.1% | 11,075 | 116.7% | 12 | 12 | 11 | |
| SR160 | Sacramento | 28,942 | 22,821 | 15,401 | -13,541 | -46.8% | -7,420 | -32.5% | 9 | 11 | 12 | |
| I5 | Yolo | 3,670 | 1,409 | 4,267 | 597 | 16.3% | 2,858 | 202.8% | 14 | 15 | 13 | |
| SR113 | Yolo | 14,514 | 219 | 2,891 | -11,623 | -80.1% | 2,672 | 1220.6% | 11 | 17 | 14 | |
| SR99 | Butte | 553 | 2,259 | 2,082 | 1,529 | 276.8% | -177 | -7.8% | 15 | 13 | 15 | |
| US50 | El Dorado | 86 | 2,212 | 327 | 241 | 281.4% | -1,885 | -85.2% | 16 | 14 | 16 | |
| SR99 | Sutter | 59 | 353 | 98 | 39 | 67.0% | -255 | -72.2% | 17 | 16 | 17 | |
| I80 | Sierra | 0 | 0 | 0 | 0 | | 0 | | | | | |
| SR12 | Sacramento | 0 | 0 | 0 | 0 | | 0 | | | | | |
| SR275 | Yolo | 0 | 2 | 0 | 0 | | -2 | -100.0% | | 18 | | |
| TOTALS | | 976,712 | 1,150,908 | 1,116,929 | 140,218 | 14.4% | -33,979 | -3.0% | | | | |

SR-113 in Yolo County had the highest rate of increase in delay at 1220.6%, when compared with the previous quarter. The increase in delay was caused by a repair of the detection system, which was brought back into operation after it was out of service for months. The repaired detection system recorded a significant increase in delay when compared with previous quarters.

As identified by the congestion table above, there was a 14.42% increase in overall delay in comparison to the same quarter of the previous year although the VMT was only 0.1% higher. The majority of this increased delay was on I-5, SR-99 and I-80. The highest increase in congestion occurred on weekends. Some of this increase is attributed to more recreational travel as a result of the opening of the Golden One Arena and the better than average ski season.

Based upon total delay by route, SR-51 has been continually the worst performing freeway in District 3 although congestion has improved by 15.7% over Q1 2016 and 24.1% over Q4 2016. This improvement is attributed to decreased diversion now that the SAC-80 HOV lane construction project has been completed. The District continues to explore best possible ways to reduce the delay in the impacted areas.