

District 07 Mobility Performance Report

2016 First Quarter

DEPARTMENT OF TRANSPORTATION

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EXECUTIVE SUMMARY

Overview

Caltrans District 7 contains two counties located in coastal southern California: Los Angeles and Ventura Counties. Both counties are urban counties, with Los Angeles as the most populous county in the United States at almost 10.1 million residents and Ventura County with 848,000 residents. Although these are urban counties, they do contain a large amount of sparsely populated National Forest and National Recreation Area land.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD), Bottleneck Locations
- 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 MPR presents congestion information at 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 input.

FINDINGS

In this quarter, total delay equaled 14.4 million VHD at the 35 mph speed threshold, a decrease of 10.2% of the previous Quarter (2015 Q4), and 30.8 million VHD at the 60 mph threshold, a decrease of 7% of previous Quarter. The average weekday delay experienced in this quarter was approximately 204 thousand VHD at 35 mph a decrease of 11.2% of Previous Quarter, and 426 thousand VHD at 60 mph, a decrease of 7.5% of previous Quarter. In general Delays were down about 9% from last Quarter (2015 Q4) and where up about 5 % from year ago (2015 Q1).

Fridays and Thursdays are the most congested days of the week, with Peak hours extends from 6:00 am to 10:00 am and from 2:30 pm to 7:00 pm, while the Peak hour in the weekend (Saturday and Sunday) traffic is between 3:00 pm and 4:00 pm

Top Ten Bottlenecks for the Quarter 1

Rank	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Avg Duration (hrs)
1	I-405-S	Carson St.	PM	33.802	10.03	61	8.5	313,003	3.8
2	I-405-N	Nordhoff	PM	68.642	44.87	61	6.4	236,854	4.1
3	I-10-E	West Covina Pkwy	PM	32.94	34.44	60	5.4	228,820	3.9
4	I-5-N	Riverside	PM	137.733	21.1	54	5.4	174,081	4.1
5	US-101-N	Universal	PM	11.008	9.66	51	5.1	158,163	4.7
6	I-210-E	Azusa	PM	39.999	R39.71	71	3.7	148,279	3.8
7	SR-170-S	Magnolia	AM	2.346	R15.26	58	4.0	147,821	4.5
8	I-105-E	Long Beach	PM	11.9	R11.9	60	5.0	142,308	4.6
9	I-10-E	La Brea Ave.	PM	8.545	R10.7	44	5.8	140,503	4.3
10	I-405-N	National	AM	52.932	29.16	58	7.2	138,959	5.0

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
		Over one year ago	Over last quarter								
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>8.9</td></tr> <tr><td>2015 Q4</td><td>9.2</td></tr> <tr><td>2016 Q1</td><td>9.1</td></tr> </table>	Quarter	Value	2015 Q1	8.9	2015 Q4	9.2	2016 Q1	9.1	3% ↑	-0.8% ↓
Quarter	Value										
2015 Q1	8.9										
2015 Q4	9.2										
2016 Q1	9.1										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>13.7</td></tr> <tr><td>2015 Q4</td><td>16.1</td></tr> <tr><td>2016 Q1</td><td>14.4</td></tr> </table>	Quarter	Value	2015 Q1	13.7	2015 Q4	16.1	2016 Q1	14.4	5.3% ↑	-10.2% ↓
Quarter	Value										
2015 Q1	13.7										
2015 Q4	16.1										
2016 Q1	14.4										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>195</td></tr> <tr><td>2015 Q4</td><td>230</td></tr> <tr><td>2016 Q1</td><td>204</td></tr> </table>	Quarter	Value	2015 Q1	195	2015 Q4	230	2016 Q1	204	4.8% ↑	-11.2% ↓
Quarter	Value										
2015 Q1	195										
2015 Q4	230										
2016 Q1	204										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>29.3</td></tr> <tr><td>2015 Q4</td><td>33.1</td></tr> <tr><td>2016 Q1</td><td>30.8</td></tr> </table>	Quarter	Value	2015 Q1	29.3	2015 Q4	33.1	2016 Q1	30.8	5% ↑	-6.9% ↓
Quarter	Value										
2015 Q1	29.3										
2015 Q4	33.1										
2016 Q1	30.8										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>Value</th></tr> <tr><td>2015 Q1</td><td>409</td></tr> <tr><td>2015 Q4</td><td>460</td></tr> <tr><td>2016 Q1</td><td>426</td></tr> </table>	Quarter	Value	2015 Q1	409	2015 Q4	460	2016 Q1	426	4% ↑	-7.5% ↓
Quarter	Value										
2015 Q1	409										
2015 Q4	460										
2016 Q1	426										

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Saturday -3.7%	Monday -19%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		4 PM -0.3%	5 PM -16.4%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		5 PM -12.4%	5 PM -21.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		5 PM -8.3%	7 AM -68.7%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		Friday 8.7%	Friday 1.5%
		10 AM 21.2%	9 AM 5.3%
		7 PM 11.4%	12 PM 31.9%
		1 PM 16.7%	1 PM 38%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Ventura -19% ↓	Los Angeles -10.5% ↓
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -0.5% ↓	PM Peak -13.9% ↓
Average Number of Good and Bad Detectors		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Day 20.6% ↑	-
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-8% ↓	-8% ↓
Average Number of Good and Bad Detectors		Change in Bad over one year ago	Change in Bad over last quarter
		14% ↑	13% ↑

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2016 Q1-2015 Q1		Difference 2016 Q1-2015 Q4		Rank		
		2015 Q1	2015 Q4	2016 Q1	Absolute	Percentage	Absolute	Percentage	2015 Q1	2015 Q4	2016 Q1
I-405	Los Angeles	1,921,938	3,082,649	2,763,862	841,925	43.8%	-318,787	-10.3%	2	1	1
I-10	Los Angeles	1,991,006	2,087,114	2,069,768	78,762	4.0%	-17,345	-0.8%	1	2	2
US-101	Los Angeles	1,887,195	1,598,497	1,275,118	-612,077	-32.4%	-323,379	-20.2%	3	4	3
I-110	Los Angeles	1,121,357	1,294,886	1,251,608	130,251	11.6%	-43,278	-3.3%	5	6	4
I-5	Los Angeles	1,215,572	1,685,486	1,236,285	20,713	1.7%	-449,202	-26.7%	4	3	5
I-210	Los Angeles	1,071,990	1,306,516	1,130,701	58,711	5.5%	-175,815	-13.5%	6	5	6
SR-60	Los Angeles	924,007	966,358	860,125	-63,882	-6.9%	-106,233	-11.0%	7	7	7
I-605	Los Angeles	691,791	853,020	708,659	16,868	2.4%	-144,361	-16.9%	8	8	8
I-105	Los Angeles	537,316	539,477	547,427	10,111	1.9%	7,950	1.5%	9	10	9
SR-91	Los Angeles	419,270	620,357	511,521	92,252	22.0%	-108,836	-17.5%	10	9	10
SR-134	Los Angeles	257,428	321,128	357,447	100,019	38.9%	36,320	11.3%	14	12	11
SR-170	Los Angeles	220,015	314,203	344,457	124,442	56.6%	30,254	9.6%	15	13	12
SR-57	Los Angeles	386,974	380,351	326,920	-60,055	-15.5%	-53,431	-14.0%	11	11	13
I-710	Los Angeles	305,667	285,029	296,042	-9,626	-3.1%	11,013	3.9%	13	14	14
US-101	Ventura	348,703	260,366	258,849	-89,854	-25.8%	-1,517	-0.6%	12	15	15
SR-14	Los Angeles	140,563	144,098	152,355	11,792	8.4%	8,257	5.7%	16	16	16
SR-71	Los Angeles	78,562	144,003	152,321	73,759	93.9%	8,319	5.8%	18	17	17
SR-118	Los Angeles	86,938	101,645	88,277	1,338	1.5%	-13,369	-13.2%	17	18	18
SR-2	Los Angeles	71,377	55,595	55,979	-15,398	-21.6%	384	0.7%	19	19	19
SR-23	Ventura	27,100	44,021	36,883	9,783	36.1%	-7,138	-16.2%	20	20	20
SR-118	Ventura	13,985	3,161	19,818	5,833	41.7%	16,657	527.0%	21	22	21
SR-90	Los Angeles	841	992	2,097	1,257	149.5%	1,106	111.5%	23	23	22
SR-47	Los Angeles	3,507	4,162	412	-3,096	-88.3%	-3,751	-90.1%	22	21	23
TOTALS		13,723,103	16,093,112	14,446,930	723,828	5.3%	-1,646,181	-10.2%			

SR-118 Ventura in 2016-Q1 compared to 2015-Q4, delays are effected due to the detectors health (2015-Q4 almost 1% data observed)

SR-90 Los Angeles 2015-Q4 difference from previous Quarter is relative to the small number of delay.

SR-47 Los Angeles 2015-Q3 change in delay is due to detectors health