

District 07 Mobility Performance Report

2017 Second Quarter

DEPARTMENT OF TRANSPORTATION
OFFICE OF SYSTEM MODELING, DATA COLLECTION AND ANALYSIS
DIVISION OF OPERATIONS

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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, with Los Angeles being the most populous county in the United States with almost 10.2 million residents. Ventura County has a population of 856,500. Although these are urban counties, they do contain a large amount of sparsely populated National Forest and National Recreation Area.

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)
- Detection Health

This report is based on daily data collected, 24 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 60 miles per hour (mph), and delay from vehicles traveling below 35 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 on engineering experience and District input.

FINDINGS

In this quarter (April – June 2017), the total delay at the 35 mph speed threshold equaled 16.2 million vehicle hours of delay (VHD), where 22% of this delay is generated by I-405 freeway congestion alone, this total delay is 7% more than the previous Quarter (2017–Q1). Similarly, total delay at the 60 mph speed threshold equaled 34.4 million vehicle hours of delay (VHD), an increase of 6.6% of previous Quarter.

The average weekday daily vehicle hour delay experienced in this quarter was approximately 217 thousand VHD at 35 mph and 450 thousand VHD at 60 mph threshold. In general Delays were Up about 7% from both last Quarter (2017 Q1) and year ago (2016 Q2).

Thursdays and Fridays are the most congested days of the week, with Peak hours extend from 6:00 am to 9:30 am and from 2:30 pm to 7:00 pm. Peak hour in the weekend (Saturday and Sunday) is generally between 1:00 pm and 5:00 pm

Top Ten Bottlenecks for the 2017 Second Quarter:

Rank	Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (hrs)
1	I405-N	Nordhoff	PM	68.642	44.87	63	8.7	312,467	3.6
2	I405-N	Westminster	AM	52.292	28.52	63	7.2	231,104	2.3
3	I405-S	Howard Hughes Pkwy	PM	48.672	24.9	64	5.8	218,766	2.9
4	I110-N	Adams	AM	20.53	20.6	64	4.8	201,372	3.5
5	US101-N	Highland	PM	9.948	8.6	64	4.1	187,340	3.9
6	I405-N	Waterford	PM	55.882	32.11	60	4.2	186,375	3.7
7	I105-E	Long Beach Blvd	PM	11.9	R11.9	64	5.6	184,541	4.7
8	I210-E	Nb 605 To Eb 210 Conn.	PM	36.889	R36.6	64	6.5	173,725	3.2
9	I405-N	Inglewood	AM	42.122	18.35	61	5.5	157,187	3.0
10	I5-S	Lakewood	PM	124.78	8.21	51	7.7	156,717	2.2

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2016</td><td>9.5</td></tr> <tr><td>2017</td><td>9.2</td></tr> <tr><td>2017</td><td>9.6</td></tr> </table>	Year	Q2	2016	9.5	2017	9.2	2017	9.6	Over one year ago	Over last quarter
		Year	Q2								
2016	9.5										
2017	9.2										
2017	9.6										
		1.7%	4.8%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2016</td><td>15</td></tr> <tr><td>2017</td><td>15.2</td></tr> <tr><td>2017</td><td>16.2</td></tr> </table>	Year	Q2	2016	15	2017	15.2	2017	16.2	Over one year ago	Over last quarter
		Year	Q2								
2016	15										
2017	15.2										
2017	16.2										
		7.8%	6.9%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2016</td><td>204</td></tr> <tr><td>2017</td><td>214</td></tr> <tr><td>2017</td><td>217</td></tr> </table>	Year	Q2	2016	204	2017	214	2017	217	Over one year ago	Over last quarter
		Year	Q2								
2016	204										
2017	214										
2017	217										
		6.4%	1.3%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2016</td><td>32.2</td></tr> <tr><td>2017</td><td>32.2</td></tr> <tr><td>2017</td><td>34.4</td></tr> </table>	Year	Q2	2016	32.2	2017	32.2	2017	34.4	Over one year ago	Over last quarter
		Year	Q2								
2016	32.2										
2017	32.2										
2017	34.4										
		6.9%	6.6%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2016</td><td>428</td></tr> <tr><td>2017</td><td>444</td></tr> <tr><td>2017</td><td>450</td></tr> </table>	Year	Q2	2016	428	2017	444	2017	450	Over one year ago	Over last quarter
		Year	Q2								
2016	428										
2017	444										
2017	450										
		5.3%	1.4%								

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 Wednesday -0.8%
		Largest Magnitude Increase over one year ago Monday 13.3%	Largest Magnitude Increase over last quarter Saturday 16.8%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 7 PM -0.7%	Largest Magnitude Weekday Decrease over last quarter 8 AM -12.2%
		Largest Magnitude Weekday Increase over one year ago 8 AM 9.4%	Largest Magnitude Weekday Increase over last quarter 3 PM 23.1%
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 6 PM -11%
		Largest Magnitude Saturday Increase over one year ago 12 PM 30.9%	Largest Magnitude Saturday Increase over last quarter 2 PM 28.4%
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 6 PM -11.3%
		Largest Magnitude Sun./Holiday Increase over one year ago 1 PM 23.8%	Largest Magnitude Sun./Holiday Increase over last quarter 2 PM 54.8%

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
		-	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Los Angeles 7.5% ↑	Los Angeles 6.7% ↑
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
		-	AM Peak -12.2% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Day 14.3% ↑	Off-Peak Day 21.7% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-6% ↓	2% ↑
		Change in Bad over one year ago	Change in Bad over last quarter
		8% ↑	-3% ↑

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2017 Q2-2016 Q2		Difference 2017 Q2-2017 Q1		Rank		
		2016 Q2	2017 Q1	2017 Q2	Absolute	Percentage	Absolute	Percentage	2016 Q2	2017 Q1	2017 Q2
		I-405	Los Angeles	3,272,479	2,976,061	3,618,602	346,123	10.6%	642,541	21.6%	1
I-5	Los Angeles	1,661,110	1,869,947	1,836,944	175,834	10.6%	-33,003	-1.8%	3	2	2
US-101	Los Angeles	1,276,871	1,756,683	1,680,464	403,593	31.6%	-76,219	-4.3%	4	3	3
I-10	Los Angeles	1,869,641	1,326,618	1,501,562	-368,078	-19.7%	174,944	13.2%	2	4	4
I-110	Los Angeles	1,039,713	1,130,186	1,189,653	149,940	14.4%	59,466	5.3%	6	6	5
I-210	Los Angeles	1,214,554	1,202,282	1,187,526	-27,028	-2.2%	-14,757	-1.2%	5	5	6
I-605	Los Angeles	703,043	873,796	993,291	290,248	41.3%	119,495	13.7%	8	7	7
SR-60	Los Angeles	811,886	814,466	816,500	4,613	0.6%	2,034	0.2%	7	8	8
SR-91	Los Angeles	575,223	506,884	599,213	23,990	4.2%	92,329	18.2%	10	9	9
I-105	Los Angeles	636,042	476,610	577,362	-58,680	-9.2%	100,752	21.1%	9	10	10
I-710	Los Angeles	213,602	449,290	422,524	208,923	97.8%	-26,765	-6.0%	15	11	11
US-101	Ventura	300,666	324,821	400,410	99,744	33.2%	75,589	23.3%	13	14	12
SR-134	Los Angeles	354,710	439,697	384,055	29,345	8.3%	-55,642	-12.7%	11	12	13
SR-170	Los Angeles	279,452	381,957	307,225	27,773	9.9%	-74,732	-19.6%	14	13	14
SR-57	Los Angeles	350,338	163,292	191,113	-159,226	-45.4%	27,821	17.0%	12	16	15
SR-118	Los Angeles	70,201	128,837	152,712	82,511	117.5%	23,875	18.5%	18	17	16
SR-14	Los Angeles	156,775	173,546	136,639	-20,136	-12.8%	-36,908	-21.3%	16	15	17
SR-2	Los Angeles	46,294	95,823	109,393	63,099	136.3%	13,571	14.2%	19	18	18
SR-71	Los Angeles	130,744	2,642	50,407	-80,337	-61.4%	47,765	1808.0%	17	22	19
SR-23	Ventura	35,018	57,242	45,422	10,404	29.7%	-11,820	-20.6%	20	19	20
SR-47	Los Angeles	2,287	3,450	3,024	737	32.2%	-426	-12.3%	22	21	21
SR-90	Los Angeles	1,068	4,436	2,042	974	91.3%	-2,394	-54.0%	23	20	22
SR-118	Ventura	26,545	691	315	-26,231	-98.8%	-377	-54.5%	21	23	23
TOTALS		15,028,261	15,159,257	16,206,395	1,178,134	7.8%	1,047,138	6.9%			