District 12 Mobility Performance Report

2019 2nd Quarter

DEPARTMENT OF TRANSPORTATION

July 25, 2019

District 12 TMC

DISTRICT 12 MOBILITY PERFORMANCE REPORT

2019 2nd Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 12 (Orange County) is located in southern California and is neighbors with District 7 (Los Angeles), District 8 (San Bernardino), and District 11 (San Diego). As of July 2017, the total population in Orange County was 3,190,400. The jurisdictional boundaries of Orange County encompass a metropolitan area of 794 square miles, including 34 cities, and 17 state highway routes. The county has 1,059 lane miles of general purpose lanes and 226 lane miles of High-Occupancy Vehicle (HOV) lanes, which is one of California's largest HOV lane networks. Orange County is the third most populous county in California, the sixth-most populous in the United States, and more populous than twenty-one U.S. states. Its county seat is Santa Ana. It is the second most densely populated county in the state.

The Mobility Performance quarterly analysis compares information from the most recent quarter and the previous 4 quarters, involving the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- 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 uses congestion at two speed thresholds: delay from vehicles traveling below 35 MPH and delay from vehicles traveling below 60 mph. The 35 MPH limit

represents severe congestion while the 60 MPH limit represents light and heavy congestion. These thresholds/limits are set by Caltrans and are based upon engineering experience and District input.

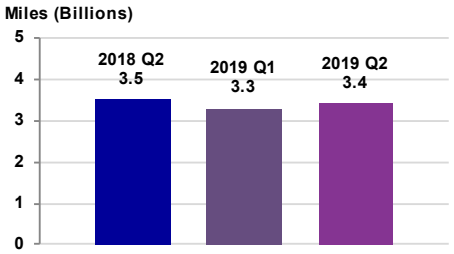
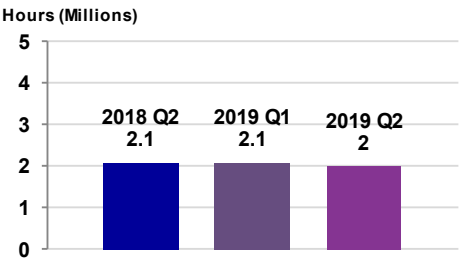
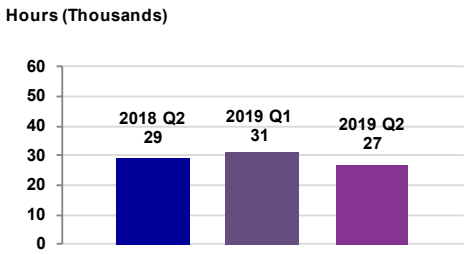
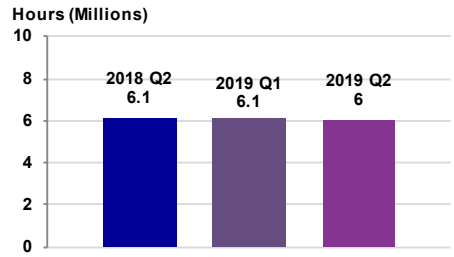
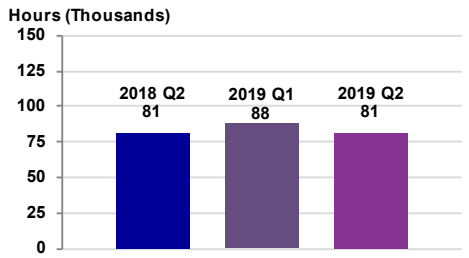
FINDINGS

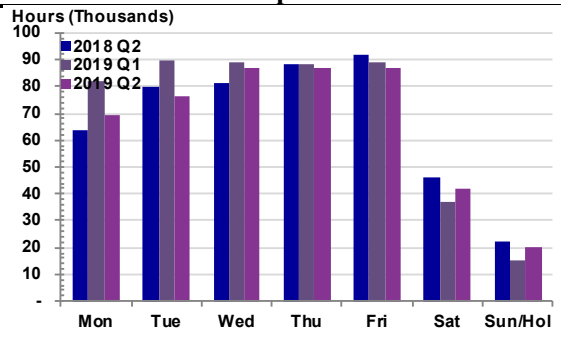
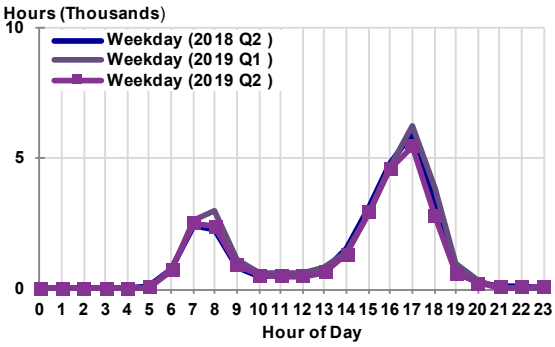
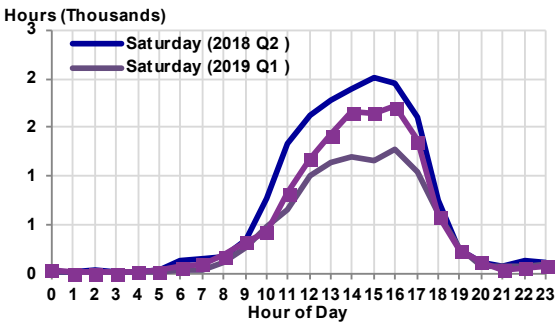
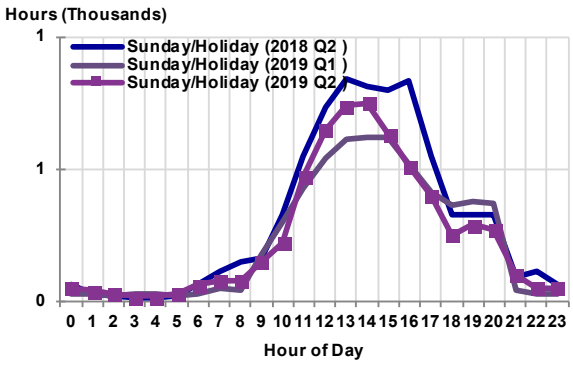
In the 2nd quarter, of 2019, total delay equaled to 2.0 million vehicle hours of delay (VHD) at the 35mph speed threshold and 6.0 million VHD at 60mph threshold. Compared to the 1st quarter, there was a 5.9 percent decrease in 35mph VHD and 2.3 percent decrease in 60mph VHD.

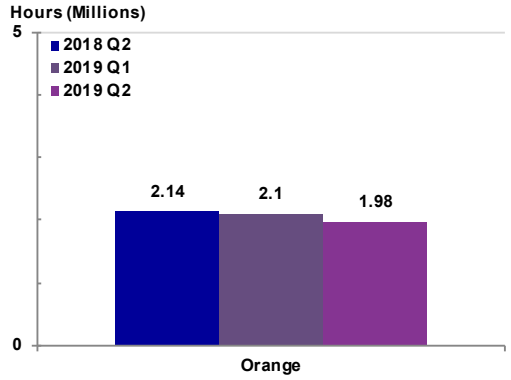
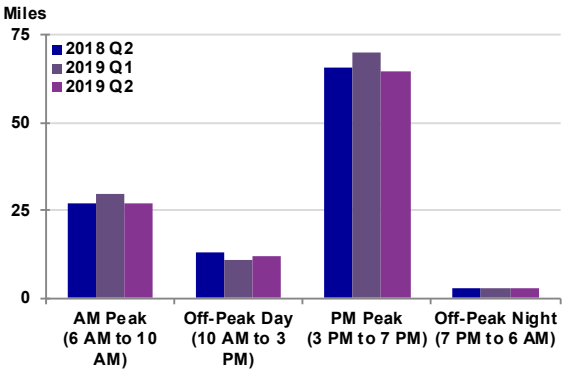
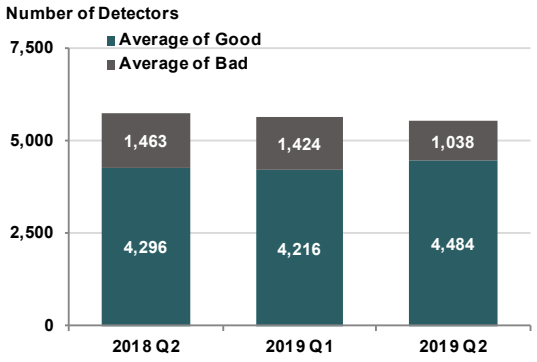
The average weekday VHD experienced in this quarter was approximately 27 thousand VHD at 35mph and 81 thousand VHD at 60mph. Compared to the third quarter, there was 12.2 percent decrease in 35mph VHD and 7.5 percent decrease in 60mph VHD.

Top 10 Bottlenecks for the 2nd Quarter of 2019

Fwy	Location	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
I405-N	EUCLID	PM	13.51	13.74	59	3.854237	160408.8	15510
I405-S	HARVARD	PM	14.93	15.16	56	2.773214	29629.7	11240
SR55-S	17TH 1	AM	12.892	13.122	56	2.3375	28419.7	14195
I405-N	WARNER	PM	28.453	R10.08	55	2.794545	20815.2	10400
I405-N	BROOKHUR2	PM	102.251	30	46	3.371739	20335.6	11455
I405-N	HAMPSHIRE	PM	6.57	6.8	57	1.329825	17538.4	6315
I405-N	BEACH 2	PM	105.851	33.6	58	2.236207	16922.1	10600
I5-N	B ST	PM	103.051	30.8	56	0.675	16890.1	10660
I5-N	1ST	PM	15.492	15.722	56	2.442857	16311.7	11230
I5-S	S OF 22	AM	10.67	10.9	51	1.141176	15096.8	10210

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		-4.2%	4.1%
Total Vehicle Hours of Delay (VHD) at 35 mph		-7.4%	-5.9%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		-5.4%	-12.2%
Total Vehicle Hours of Delay (VHD) at 60 mph		-1.5%	-1.1%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		0.1%	-7.5%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Friday -5.6%	Largest Magnitude Decrease over last quarter Tuesday -15.7%
		Largest Magnitude Increase over one year ago Wednesday 8%	Largest Magnitude Increase over last quarter Sun/Hol 30.2%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 6 PM -14.7%	Largest Magnitude Weekday Decrease over last quarter 6 PM -27.2%
		Largest Magnitude Weekday Increase over one year ago 7 AM 5.3%	Largest Magnitude Weekday Increase over last quarter 3 PM 1.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 11 AM -38%	Largest Magnitude Saturday Decrease over last quarter 10 AM -9.4%
		Largest Magnitude Saturday Increase over one year ago 12 AM 71.2%	Largest Magnitude Saturday Increase over last quarter 3 PM 42.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 4 PM -38.5%	Largest Magnitude Sun./Holiday Decrease over last quarter 6 PM -28.8%
		Largest Magnitude Sun./Holiday Increase over one year ago 1 AM 54%	Largest Magnitude Sun./Holiday Increase over last quarter 1 PM 21.4%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago Orange -7.4%	Largest Magnitude Decrease over last quarter Orange -5.9%
		Largest Magnitude Increase over one year ago –	Largest Magnitude Increase over last quarter –
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago Off-Peak Day -8.1%	Largest Magnitude Decrease over last quarter PM Peak -6.2%
		Largest Magnitude Increase over one year ago –	Largest Magnitude Increase over last quarter Off-Peak Day 2.4%
Average Number of Good and Bad Detectors		Change in Good over one year ago 4%	Change in Good over last quarter 6%
		Change in Bad over one year ago -29%	Change in Bad over last quarter -27%

Quarterly Mobility Statistics
District 12

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2019 Q2-2018 Q2		Difference 2019 Q2-2019 Q1		Rank		
		2018 Q2	2019 Q1	2019 Q2	Absolute	Percentage	Absolute	Percentage	2018 Q2	2019 Q1	2019 Q2
I405	Orange	586,949	586,241	552,910	-34,038	-5.8%	-33,331	-5.7%	1	1	1
I5	Orange	521,179	516,905	552,548	31,369	6.0%	35,643	6.9%	2	2	2
SR91	Orange	275,875	347,765	293,981	18,106	6.6%	-53,785	-15.5%	3	3	3
SR55	Orange	274,121	233,619	206,833	-67,287	-24.5%	-26,786	-11.5%	4	4	4
SR57	Orange	197,535	109,188	137,414	-60,121	-30.4%	28,227	25.9%	5	6	5
SR22	Orange	103,966	129,748	90,582	-13,384	-12.9%	-39,166	-30.2%	6	5	6
SR73	Orange	86,189	107,251	77,867	-8,323	-9.7%	-29,385	-27.4%	7	7	7
SR241	Orange	42,679	26,855	33,931	-8,748	-20.5%	7,076	26.3%	8	8	8
I605	Orange	17,500	20,801	18,875	1,375	7.9%	-1,925	-9.3%	9	9	9
SR133	Orange	16,289	20,537	7,105	-9,184	-56.4%	-13,432	-65.4%	10	10	10
SR74	Orange	684	998	3,717	3,033	443.3%	2,720	272.6%	12	12	11
SR142	Orange	12,796	1,338	2,240	-10,555	-82.5%	903	67.5%	11	11	12
SR261	Orange	313	219	194	-119	-38.0%	-25	-11.4%	13	13	13
SR1	Orange	0	48	24	24		-24	-50.4%		14	14
SR39	Orange	0	0	0	0		0				