

# District 12 Mobility Performance Report

2018 3<sup>rd</sup> Quarter

**DEPARTMENT OF TRANSPORTATION**

October 23, 2018  
District 12 TMC

## DISTRICT 12 MOBILITY PERFORMANCE REPORT

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2018 3<sup>rd</sup> 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 2016 the total population in Orange County was 3,172,532. 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 third quarter of 2018, at 35 mph, the total delay equaled to 1.8 million vehicle hours of delay (VHD), which was 15 percent less than the second quarter of 2018 of 2.1 million VHD. At 60mph, the total delay was 5.6 million VHD, which was 7.5 percent less than the second quarter of 6.1 million VHD.

The average weekday VHD, in the third quarter, was 25 thousand hours of delay at 35 MPH, which was 14.3 percent less than the VHD of the second quarter of 29 thousand hours of delay. While the VHD at 60 MPH, during the third quarter, was 76 thousand hours of delay. Which was a decrease of 6.4 percent from 81 thousand hours of delay during the second quarter of 2018.

### Top 10 Bottlenecks for the 3<sup>rd</sup> Quarter of 2018

<b>Abs PM</b>	<b>CA PM</b>	<b># Days Active</b>	<b>Avg Extent (Miles)</b>	<b>Total Delay (veh-hrs)</b>	<b>Total Duration (mins)</b>
12.892	13.122	58	3.22069	69154	8395
14.341	14.571	35	4.508571	20809.7	5670
13.51	13.74	41	3.37561	20786.7	2610
99.811	27.56	63	1.57619	19927	15810
14.93	15.16	44	2.913636	18961.5	8650
14.341	14.571	41	1.926829	17737	3655
28.453	R10.08	56	2.610714	16188.7	10285
14.59	14.82	35	2.762857	15652.9	3185
12.62	12.85	29	2.32069	15155.5	6280
116.151	43.9	63	1.014286	14744.9	14685

## Quarterly Mobility Statistics

### 2018 Q3 Quarterly Mobility Statistics District 12

Measure	Graph	Percentage Change									
		Over one year ago	Over last quarter								
<b>Vehicle Miles of Travel (VMT)</b>	<p>Miles (Billions)</p> <table border="1"> <thead> <tr> <th>Year/Quarter</th> <th>Miles (Billions)</th> </tr> </thead> <tbody> <tr> <td>2017 Q3</td> <td>3.5</td> </tr> <tr> <td>2018 Q2</td> <td>3.5</td> </tr> <tr> <td>2018 Q3</td> <td>3.5</td> </tr> </tbody> </table>	Year/Quarter	Miles (Billions)	2017 Q3	3.5	2018 Q2	3.5	2018 Q3	3.5	2.7%	0.8%
Year/Quarter	Miles (Billions)										
2017 Q3	3.5										
2018 Q2	3.5										
2018 Q3	3.5										
<b>Total Vehicle Hours of Delay (VHD) at 35 mph</b>	<p>Hours (Millions)</p> <table border="1"> <thead> <tr> <th>Year/Quarter</th> <th>Hours (Millions)</th> </tr> </thead> <tbody> <tr> <td>2017 Q3</td> <td>2.6</td> </tr> <tr> <td>2018 Q2</td> <td>2.1</td> </tr> <tr> <td>2018 Q3</td> <td>1.8</td> </tr> </tbody> </table>	Year/Quarter	Hours (Millions)	2017 Q3	2.6	2018 Q2	2.1	2018 Q3	1.8	-30.8%	-15%
Year/Quarter	Hours (Millions)										
2017 Q3	2.6										
2018 Q2	2.1										
2018 Q3	1.8										
<b>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph</b>	<p>Hours (Thousands)</p> <table border="1"> <thead> <tr> <th>Year/Quarter</th> <th>Hours (Thousands)</th> </tr> </thead> <tbody> <tr> <td>2017 Q3</td> <td>37</td> </tr> <tr> <td>2018 Q2</td> <td>29</td> </tr> <tr> <td>2018 Q3</td> <td>25</td> </tr> </tbody> </table>	Year/Quarter	Hours (Thousands)	2017 Q3	37	2018 Q2	29	2018 Q3	25	-33.5%	-14.3%
Year/Quarter	Hours (Thousands)										
2017 Q3	37										
2018 Q2	29										
2018 Q3	25										
<b>Total Vehicle Hours of Delay (VHD) at 60 mph</b>	<p>Hours (Millions)</p> <table border="1"> <thead> <tr> <th>Year/Quarter</th> <th>Hours (Millions)</th> </tr> </thead> <tbody> <tr> <td>2017 Q3</td> <td>7.1</td> </tr> <tr> <td>2018 Q2</td> <td>6.1</td> </tr> <tr> <td>2018 Q3</td> <td>5.6</td> </tr> </tbody> </table>	Year/Quarter	Hours (Millions)	2017 Q3	7.1	2018 Q2	6.1	2018 Q3	5.6	-21%	-7.5%
Year/Quarter	Hours (Millions)										
2017 Q3	7.1										
2018 Q2	6.1										
2018 Q3	5.6										
<b>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph</b>	<p>Hours (Thousands)</p> <table border="1"> <thead> <tr> <th>Year/Quarter</th> <th>Hours (Thousands)</th> </tr> </thead> <tbody> <tr> <td>2017 Q3</td> <td>98</td> </tr> <tr> <td>2018 Q2</td> <td>81</td> </tr> <tr> <td>2018 Q3</td> <td>76</td> </tr> </tbody> </table>	Year/Quarter	Hours (Thousands)	2017 Q3	98	2018 Q2	81	2018 Q3	76	-22.3%	-6.4%
Year/Quarter	Hours (Thousands)										
2017 Q3	98										
2018 Q2	81										
2018 Q3	76										

**2018 Q3**  
**Quarterly Mobility Statistics**  
**District 12**

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
		Tuesday -27.7%	Friday -9.7%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Monday 0.4%
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
		5 PM -32.2%	5 PM -13.5%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		12 AM 23.4%	7 PM 8.3%
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 -35.5%	2 PM -26.4%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		10 PM 86.5%	6 PM 19.9%
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
		10 PM -38.6%	4 PM -29.3%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		2 PM 39%	11 PM 83.9%

2018 Q3  
Quarterly Mobility Statistics  
District 12

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Millions)</p> <p>■ 2017 Q3 ■ 2018 Q2 ■ 2018 Q3</p> <p>Orange</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Orange -30.8% ↓	Orange -15% ↓
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>■ 2017 Q3 ■ 2018 Q2 ■ 2018 Q3</p> <p>AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		PM Peak -22.7% ↓	AM Peak -7.4% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Night 6% ↑	
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>■ Average of Good ■ Average of Bad</p> <p>2017 Q3 2018 Q2 2018 Q3</p>	Change in Good over one year ago	Change in Good over last quarter
		-8% ↓	-3% ↓
		Change in Bad over one year ago	Change in Bad over last quarter
		45% ↑	9% ↑

**2018 Q3  
Quarterly Mobility Statistics  
District 12**

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2018 Q3-2017 Q3		Difference 2018 Q3-2018 Q2		Rank		
		2017 Q3	2018 Q2	2018 Q3	Absolute	Percentage	Absolute	Percentage	2017 Q3	2018 Q2	2018 Q3
I405	Orange	780,970	586,949	596,244	-184,726	-23.7%	9,295	1.6%	1	1	1
I5	Orange	522,741	521,179	497,969	-24,773	-4.7%	-23,211	-4.5%	2	2	2
SR91	Orange	372,390	275,875	253,372	-119,018	-32.0%	-22,503	-8.2%	4	3	3
SR55	Orange	418,170	274,121	157,785	-260,386	-62.3%	-116,336	-42.4%	3	4	4
SR22	Orange	148,581	103,966	107,555	-41,026	-27.6%	3,589	3.5%	6	6	5
SR73	Orange	108,567	86,189	77,723	-30,844	-28.4%	-8,466	-9.8%	7	7	6
SR57	Orange	217,560	197,535	49,302	-168,258	-77.3%	-148,233	-75.0%	5	5	7
SR241	Orange	29,597	42,679	36,706	7,109	24.0%	-5,973	-14.0%	8	8	8
SR133	Orange	4,678	16,289	17,598	12,920	276.2%	1,308	8.0%	10	10	9
I605	Orange	21,261	17,500	17,349	-3,912	-18.4%	-152	-0.9%	9	9	10
SR142	Orange	0	12,796	3,186	3,186		-9,610	-75.1%		11	11
SR74	Orange	0	684	1,498	1,498		814	119.0%		12	12
SR261	Orange	113	313	290	177	156.4%	-23	-7.4%	12	13	13
SR1	Orange	0	0	0	0		0				
SR39	Orange	274	0	0	-274	-100.0%	0		11		