

# District 12 Mobility Performance Report

2022 3<sup>rd</sup> Quarter

**DEPARTMENT OF TRANSPORTATION**

October 25, 2022

District 12 Traffic Operations Northwest

**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 April 1, 2020, the total population in Orange County was 3,010,232. 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 Mobility Performance Report 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 3<sup>rd</sup> quarter of 2022, total delay equaled to 1.4 million vehicle hours of delay (VHD) at the 35 MPH speed threshold and 5.0 million VHD at 60 MPH threshold. Compared to the previous quarter, there was a 3.2 percent decrease in 35 MPH VHD and 3.1 percent increase in 60 MPH VHD.

The average weekday VHD experienced in this quarter was approximately 18 thousand VHD at 35 MPH and 67 thousand VHD at 60 MPH. Compared to the previous quarter, there was 0.9 percent decrease in 35 MPH VHD and 4.5 percent increase in 60 mph VHD.

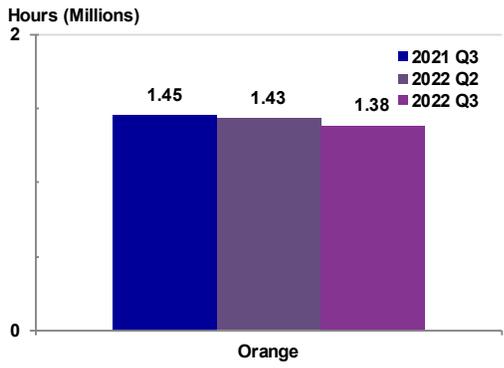
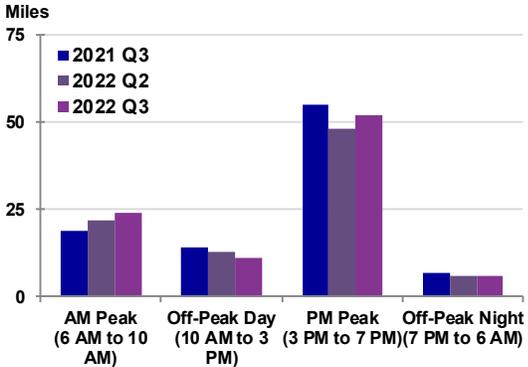
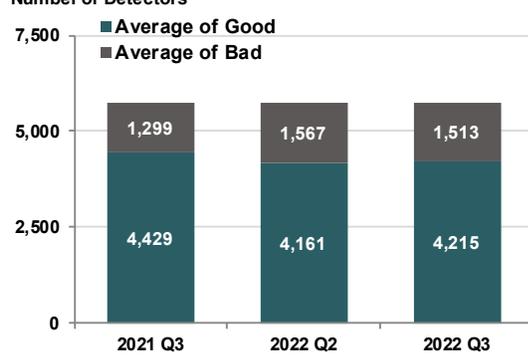
### Top 10 Bottlenecks for the 3<sup>rd</sup> Quarter of 2022

Co	Shift	Fwy	DIR	Name	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
Ora	PM	I405	N	LOCATION 5013 NB	12.89	13.122	33.70	-117.94	62	2.46	63,470	7620
Ora	PM	I405	N	BROOKHUR1	13.51	13.74	33.70	-117.95	50	3.19	51,594	5115
Ora	PM	SR57	N	TONNER	11.27	22	33.94	-117.88	63	1.41	49,929	16170
Ora	AM	I5	S	MAIN 1	105.19	33	33.77	-117.87	63	0.61	25,927	11385
Ora	PM	I5	N	YALE	98.06	R25.8	33.70	-117.77	63	1.95	23,477	13000
Ora	PM	SR91	E	LAKEVIEW1	28.45	R10.08	33.85	-117.81	63	2.69	22,632	9340
Ora	PM	I5	S	RED ROBIN	91.53	19.33	33.62	-117.71	62	1.09	18,475	7485
Ora	PM	SR91	E	West OF GYPSUM	34.14	R15.793	33.87	-117.72	63	1.88	18,182	10805
Ora	AM	I5	S	LA PALMA	113.17	40.98	33.85	-117.96	57	1.46	17,336	4735
Ora	PM	SR57	N	TONNER	11.27	22	33.94	-117.88	53	1.10	16,506	13345

## 2022 Q3 Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2021</td><td>3.27</td></tr> <tr><td>2022</td><td>3.28</td></tr> <tr><td>2022</td><td>3.35</td></tr> </table>	Year	Q3	2021	3.27	2022	3.28	2022	3.35	Over one year ago	Over last quarter
		Year	Q3								
		2021	3.27								
2022	3.28										
2022	3.35										
2.4%	2.1%										
↑	↑										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2021</td><td>1.4</td></tr> <tr><td>2022</td><td>1.4</td></tr> <tr><td>2022</td><td>1.4</td></tr> </table>	Year	Q3	2021	1.4	2022	1.4	2022	1.4	Over one year ago	Over last quarter
		Year	Q3								
		2021	1.4								
2022	1.4										
2022	1.4										
-4.5%	-3.2%										
↓	↓										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2021</td><td>18</td></tr> <tr><td>2022</td><td>18</td></tr> <tr><td>2022</td><td>18</td></tr> </table>	Year	Q3	2021	18	2022	18	2022	18	Over one year ago	Over last quarter
		Year	Q3								
		2021	18								
2022	18										
2022	18										
0.2%	-0.9%										
↑	↓										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2021</td><td>5.1</td></tr> <tr><td>2022</td><td>4.9</td></tr> <tr><td>2022</td><td>5</td></tr> </table>	Year	Q3	2021	5.1	2022	4.9	2022	5	Over one year ago	Over last quarter
		Year	Q3								
		2021	5.1								
2022	4.9										
2022	5										
-2.4%	3.1%										
↓	↑										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2021</td><td>66</td></tr> <tr><td>2022</td><td>64</td></tr> <tr><td>2022</td><td>67</td></tr> </table>	Year	Q3	2021	66	2022	64	2022	67	Over one year ago	Over last quarter
		Year	Q3								
		2021	66								
2022	64										
2022	67										
0.9%	4.5%										
↑	↑										

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 -15% ↓	Sun/Hol -18.8% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Wednesday 5.8% ↑	Monday 16.4% ↑
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
		4 PM -4.5% ↓	3 PM -8.4% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		7 AM 20.1% ↑	6 PM 22.8% ↑
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
		12 PM -25.1% ↓	2 PM -9.4% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		9 AM 7.2% ↑	5 PM 7.7% ↑
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
		3 PM -52.3% ↓	3 PM -53.3% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		-	10 PM 143.3% ↑

Measure	Graph	Percentage Change	
<b>Total Vehicle Hours of Delay (VHD) by County at 35 mph</b>	 <p>Hours (Millions)</p> <p>2021 Q3: 1.45 2022 Q2: 1.43 2022 Q3: 1.38</p> <p>Orange</p>	<b>Largest Magnitude Decrease over one year ago</b>	<b>Largest Magnitude Decrease over last quarter</b>
		Orange -4.5% 	Orange -3.2% 
		<b>Largest Magnitude Increase over one year ago</b>	<b>Largest Magnitude Increase over last quarter</b>
<b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b>	 <p>Miles</p> <p>2021 Q3, 2022 Q2, 2022 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>	<b>Largest Magnitude Decrease over one year ago</b>	<b>Largest Magnitude Decrease over last quarter</b>
		PM Peak -5.9% 	Off-Peak Day -13.4% 
		<b>Largest Magnitude Increase over one year ago</b>	<b>Largest Magnitude Increase over last quarter</b>
		AM Peak 21.4% 	PM Peak 6.7% 
<b>Average Number of Good and Bad Detectors</b>	 <p>Number of Detectors</p> <p>Average of Good, Average of Bad</p> <p>2021 Q3: 4,429 (Good), 1,299 (Bad) 2022 Q2: 4,161 (Good), 1,567 (Bad) 2022 Q3: 4,215 (Good), 1,513 (Bad)</p>	<b>Change in Good over one year ago</b>	<b>Change in Good over last quarter</b>
		-5% 	1% 
		<b>Change in Bad over one year ago</b>	<b>Change in Bad over last quarter</b>
		16% 	-3% 

**Congestion by Route**

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2022 Q3-2021 Q3		Difference 2022 Q3-2022 Q2		Rank		
		2021 Q3	2022 Q2	2022 Q3	Absolute	Percentage	Absolute	Percentage	2021 Q3	2022 Q2	2022 Q3
		I5	Orange	502,288	456,073	346,018	-156,270	-31.1%	-110,055	-24.1%	1
SR91	Orange	314,623	292,077	335,081	20,458	6.5%	43,004	14.7%	2	2	2
I405	Orange	246,875	236,682	238,732	-8,143	-3.3%	2,050	0.9%	3	3	3
SR55	Orange	164,171	181,798	204,207	40,036	24.4%	22,409	12.3%	4	4	4
SR57	Orange	111,640	151,408	177,928	66,288	59.4%	26,520	17.5%	5	5	5
SR22	Orange	44,701	70,513	46,605	1,903	4.3%	-23,909	-33.9%	6	6	6
SR241	Orange	18,013	16,936	13,629	-4,384	-24.3%	-3,307	-19.5%	8	7	7
SR73	Orange	34,415	12,807	11,176	-23,239	-67.5%	-1,631	-12.7%	7	8	8
I605	Orange	4,547	5,311	3,645	-903	-19.9%	-1,667	-31.4%	9	9	9
SR133	Orange	1,841	2,163	3,604	1,763	95.8%	1,441	66.6%	11	10	10
SR261	Orange	132	28	162	30	22.6%	134	477.9%	13	13	11
SR142	Orange	803	722	64	-740	-92.1%	-658	-91.2%	12	11	12
SR74	Orange	2,344	298	5	-2,339	-99.8%	-293	-98.3%	10	12	13
SR1	Orange	0	0	0	0		0				
<b>TOTALS</b>		<b>1,446,394</b>	<b>1,426,816</b>	<b>1,380,853</b>	<b>-65,541</b>	<b>-4.5%</b>	<b>-45,962</b>	<b>-3.2%</b>			