

# District 05 Mobility Performance Report

2020 Second Quarter

**DEPARTMENT OF TRANSPORTATION**

July 8, 2020  
: Nicholas Zangl

2020 Second Quarter

## EXECUTIVE SUMMARY

### Overview

Caltrans District 5 contains five counties located along the central coast of California: Santa Barbara, San Luis Obispo, Monterey, Santa Cruz and San Benito Counties. All counties are in urban settings within city limits and rural settings outside city limits. Santa Cruz and Santa Barbara are the top two most congested counties in the 2<sup>nd</sup> quarter.

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 the second quarter, total delay equaled 119,400 vehicle hours of delay (VHD) at the 35 mph speed threshold, and 247,300 VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 1,482 VHD at 35 mph, and 3,000 VHD at 60 mph.

### Top Ten Bottlenecks for Quarter 2

County	Fwy	Location	Type	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	US101-S	CABRILLO BLVD SB 101 PM 94.57 VD	ML	PM	94.55	11.662	64	0.38438	5135.7	14025
SBT	SR156-E	WEST OF MITCHELL RD ON HWY 156 W	ML	PM	13.287	6.918	57	3.00351	4228.6	6555
SB	US101-S	CABRILLO BLVD SB 101 PM 94.57 VD	ML	PM	94.55	11.662	64	0.3	4048.9	14025
SCR	US101-N	BAILARD AVE 101 NB VDS MLNB NB	ML	AM	84.742	1.819	36	1.96389	3843.8	2125
SB	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	ML	PM	87.528	4.63200	25	0.936	1852.7	1880
SCR	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	ML	PM	87.528	4.63200	53	1.53019	1768.1	4410
SCR	US101-N	CARILLO ST UC 101 SB VDS MLNB NB	ML	PM	97.706	14.791	51	0.78431	1128.9	5065
MON	SR1-N	CARPENTER RD HWY 1 NB VDS MLNB N	ML	PM	324.954	74.419	23	1.03043	1068.4	2340
MON	SR1-S	STRUVE RD HWY 1 SB VDS MLSB SB	ML	PM	347.255	98.193	21	2.05714	903.8	1500
MON	US101-N	CRAZY HORSE CYN RD HWY 101 NB VD	ML	AM	338.925	98.36	1	6.5	827.7	280

## Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VMT (Millions)</th></tr> <tr><td>2019 Q2</td><td>951</td></tr> <tr><td>2020 Q1</td><td>829.2</td></tr> <tr><td>2020 Q2</td><td>694.9</td></tr> </table>	Quarter	VMT (Millions)	2019 Q2	951	2020 Q1	829.2	2020 Q2	694.9	Over one year ago	Over last quarter
Quarter	VMT (Millions)										
2019 Q2	951										
2020 Q1	829.2										
2020 Q2	694.9										
		-26.9%	-16.2%								
		↓	↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2019 Q2</td><td>428.5</td></tr> <tr><td>2020 Q1</td><td>260.2</td></tr> <tr><td>2020 Q2</td><td>119.4</td></tr> </table>	Quarter	VHD (Thousands)	2019 Q2	428.5	2020 Q1	260.2	2020 Q2	119.4	Over one year ago	Over last quarter
Quarter	VHD (Thousands)										
2019 Q2	428.5										
2020 Q1	260.2										
2020 Q2	119.4										
		-72.1%	-54.1%								
		↓	↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Hours)</th></tr> <tr><td>2019 Q2</td><td>5148</td></tr> <tr><td>2020 Q1</td><td>3517</td></tr> <tr><td>2020 Q2</td><td>1482</td></tr> </table>	Quarter	VHD (Hours)	2019 Q2	5148	2020 Q1	3517	2020 Q2	1482	Over one year ago	Over last quarter
Quarter	VHD (Hours)										
2019 Q2	5148										
2020 Q1	3517										
2020 Q2	1482										
		-71.2%	-57.9%								
		↓	↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2019 Q2</td><td>931.3</td></tr> <tr><td>2020 Q1</td><td>587.7</td></tr> <tr><td>2020 Q2</td><td>247.3</td></tr> </table>	Quarter	VHD (Thousands)	2019 Q2	931.3	2020 Q1	587.7	2020 Q2	247.3	Over one year ago	Over last quarter
Quarter	VHD (Thousands)										
2019 Q2	931.3										
2020 Q1	587.7										
2020 Q2	247.3										
		-73.4%	-57.9%								
		↓	↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2019 Q2</td><td>11</td></tr> <tr><td>2020 Q1</td><td>8</td></tr> <tr><td>2020 Q2</td><td>3</td></tr> </table>	Quarter	VHD (Thousands)	2019 Q2	11	2020 Q1	8	2020 Q2	3	Over one year ago	Over last quarter
Quarter	VHD (Thousands)										
2019 Q2	11										
2020 Q1	8										
2020 Q2	3										
		-72.7%	-62.2%								
		↓	↓								

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
		Thursday -79.5% ↓	Thursday -72.5% ↓
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 -75.6% ↓	8 AM -95.4% ↓
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
		12 PM -76.7% ↓	12 PM -53.8% ↓
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
		1 PM -83.7% ↓	12 PM -77.3% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	1 PM 16.1% ↑
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	7 PM 105.5% ↑
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		-	9 PM 1768.3% ↑

Measure	Graph	Percentage Change	
<b>Total Vehicle Hours of Delay (VHD) by County at 35 mph</b>		<b>Largest Magnitude Decrease over one year ago</b> Santa Cruz -71.7% ↓	<b>Largest Magnitude Decrease over last quarter</b> Santa Cruz -51.6% ↓
		<b>Largest Magnitude Increase over one year ago</b> -	<b>Largest Magnitude Increase over last quarter</b> San Benito 99.6% ↑
		-	
<b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b>		<b>Largest Magnitude Decrease over one year ago</b> PM Peak -69.6% ↓	<b>Largest Magnitude Decrease over last quarter</b> AM Peak -89% ↓
		<b>Largest Magnitude Increase over one year ago</b> -	<b>Largest Magnitude Increase over last quarter</b> Off-Peak Night 149.5% ↑
		-	
<b>Average Number of Good and Bad Detectors</b>		<b>Change in Good over one year ago</b> 45% ↑	<b>Change in Good over last quarter</b> 4% ↑
		<b>Change in Bad over one year ago</b> -54% ↓	<b>Change in Bad over last quarter</b> -16% ↓
		-	

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2020 Q2-2019 Q2		Difference 2020 Q2-2020 Q1		Rank		
		2019 Q2	2020 Q1	2020 Q2	Absolute	Percentage	Absolute	Percentage	2019 Q2	2020 Q1	2020 Q2
SR17	Santa Cruz	27,144	17,006	38,799	11,655	42.9%	21,793	128.1%	5	4	1
SR1	Santa Cruz	223,870	129,394	32,095	-191,775	-85.7%	-97,299	-75.2%	1	1	2
US101	Santa Barbara	55,344	44,473	16,168	-39,176	-70.8%	-28,305	-63.6%	2	2	3
SR1	Monterey	54,498	36,858	11,034	-43,465	-79.8%	-25,824	-70.1%	3	3	4
SR156	San Benito	13,707	4,385	8,750	-4,958	-36.2%	4,365	99.6%	6	8	5
US101	Monterey	10,375	6,270	5,770	-4,605	-44.4%	-499	-8.0%	7	7	6
US101	San Luis Obispo	27,326	9,011	4,167	-23,159	-84.8%	-4,844	-53.8%	4	6	7
SR68	Monterey	7,683	12,808	2,622	-5,062	-65.9%	-10,186	-79.5%	9	5	8
SR25	San Benito	9,332	0	0	-9,332	-100.0%	0		8		
<b>TOTALS</b>		<b>429,280</b>	<b>260,204</b>	<b>119,405</b>	<b>-309,875</b>	<b>-72.2%</b>	<b>-140,800</b>	<b>-54.1%</b>			

In previous quarters, the two detectors on SR25 were included in District 5 data but located in Santa Clara County in District 4. As of 2019 Q4, detection on SR25 was transferred from District 5 to District 4 in PeMS, eliminating the need for reconciliation of those two detectors moving forward. SR25 congestion will be part of the table above for the remainder of 2020 until the one year prior data is equal to the current quarter showing 0 congestion due to the detectors no longer existing in District 5.