

# District 05 Mobility Performance Report

2018 Second Quarter

**DEPARTMENT OF TRANSPORTATION**

September 7, 2018  
: Sam Toh

2018 Second Quarter

## EXECUTIVE SUMMARY

### Overview

Caltrans District 5 contains five counties located in central coast California: Santa Barbara, San Luis Obispo, Monterey, Santa Cruz and San Benito Counties. Detection were implemented along SR25 on Bolsa Rd (PM 59.5) and SR156 from San Juan Bautista to Hollister (PM 1.71-R12.024) respectively. Therefore, there are no comparable data for 2017 for San Benito County. All of the counties are in an urban setting within the cities limit and rural outside city limit. Santa Cruz and Monterey 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 476,700 vehicle hours of delay (VHD) at the 35 mph speed threshold, and 919,000 VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 5,524 VHD at 35 mph, and 11,000 VHD at 60 mph.

### Top Ten Bottlenecks for Quarter 2

County	VDS	Fwy	Location	Shift	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	500013151	SR1-S	STATE PARK DR AT HWY 1 SB VDS ML	PM	362.07	10.772	36.979813	-121.914036	56	5.22321	41498.8	7670
SCR	500014022	SR1-S	PARK AVE AT HWY 1 NB VDS MLSB SB	PM	363.178	11.88	36.983854	-121.933254	63	3.11905	16654.2	5250
MON	500010101	SR1-N	SOUTH OF HWY 68 EAST AT HWY 1 NB	PM	328.558	78.023	36.594593	-121.869761	57	2.05439	13271.8	6240
SCR	500014072	SR1-N	41ST ST EXIT AT HWY 1 SB VDS MLN	AM	365.27	13.929	36.983207	-121.969927	53	4.03962	11757.3	4505
SCR	405575	SR1-S	NB1 to NB 17 conn	PM	368.018	16.72	36.989141	-122.019205	43	8.53256	8475.5	3480
MON	500010142	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	PM	330.075	79.54	36.611936	-121.85503	62	1.2	6844.6	8425
SLO	501016071	US101-S	SPYGLASS DR 101 SB VDS MLSB SB	PM	193.322	19.797	35.163842	-120.686844	46	2.14565	4964.2	3690
SCR	500014082	SR1-S	SOQUEL DR NEXT EXT SIGN HWY 1 N	PM	365.708	14.41	36.985023	-121.978295	49	1.66122	4454	2955
SB	501010062	US101-S	SANTA MONICA RD 101 NB VDS MLSB	PM	86.792	3.896	34.404094	-119.53097	42	2.2	4387.4	4550
SCR	500014052	SR1-S	BAY AVE - PORTER ST AT HWY 1 SB	PM	364.577	13.279	36.983018	-121.95851	56	1.85536	3609.8	2135

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## Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
		Over one year ago	Over last quarter								
Vehicle Miles of Travel (VMT)	<p>Miles (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VMT (Millions)</th></tr> <tr><td>2017 Q2</td><td>854.4</td></tr> <tr><td>2018 Q1</td><td>756.1</td></tr> <tr><td>2018 Q2</td><td>824.4</td></tr> </table>	Quarter	VMT (Millions)	2017 Q2	854.4	2018 Q1	756.1	2018 Q2	824.4	-3.5%	9%
Quarter	VMT (Millions)										
2017 Q2	854.4										
2018 Q1	756.1										
2018 Q2	824.4										
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>2017 Q2</td><td>472.4</td></tr> <tr><td>2018 Q1</td><td>283.7</td></tr> <tr><td>2018 Q2</td><td>476.7</td></tr> </table>	Quarter	VHD (Thousands)	2017 Q2	472.4	2018 Q1	283.7	2018 Q2	476.7	0.9%	68.1%
Quarter	VHD (Thousands)										
2017 Q2	472.4										
2018 Q1	283.7										
2018 Q2	476.7										
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>2017 Q2</td><td>5306</td></tr> <tr><td>2018 Q1</td><td>3793</td></tr> <tr><td>2018 Q2</td><td>5524</td></tr> </table>	Quarter	VHD (Hours)	2017 Q2	5306	2018 Q1	3793	2018 Q2	5524	4.1%	45.6%
Quarter	VHD (Hours)										
2017 Q2	5306										
2018 Q1	3793										
2018 Q2	5524										
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>2017 Q2</td><td>974.1</td></tr> <tr><td>2018 Q1</td><td>599.6</td></tr> <tr><td>2018 Q2</td><td>919</td></tr> </table>	Quarter	VHD (Thousands)	2017 Q2	974.1	2018 Q1	599.6	2018 Q2	919	-5.7%	53.3%
Quarter	VHD (Thousands)										
2017 Q2	974.1										
2018 Q1	599.6										
2018 Q2	919										
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>2017 Q2</td><td>11</td></tr> <tr><td>2018 Q1</td><td>8</td></tr> <tr><td>2018 Q2</td><td>11</td></tr> </table>	Quarter	VHD (Thousands)	2017 Q2	11	2018 Q1	8	2018 Q2	11	-3.3%	33.7%
Quarter	VHD (Thousands)										
2017 Q2	11										
2018 Q1	8										
2018 Q2	11										

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Sun/Hol -27% ↓	Largest Magnitude Decrease over last quarter -
		Largest Magnitude Increase over one year ago Tuesday 14% ↑	Largest Magnitude Increase over last quarter Sun/Hol 189.8% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 10 AM -49% ↓	Largest Magnitude Weekday Decrease over last quarter 8 AM -24.3% ↓
		Largest Magnitude Weekday Increase over one year ago 3 PM 20% ↑	Largest Magnitude Weekday Increase over last quarter 4 PM 60.9% ↑
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 5 PM -30.6% ↓	Largest Magnitude Saturday Decrease over last quarter 6 AM -74.2% ↓
		Largest Magnitude Saturday Increase over one year ago 11 AM 102.1% ↑	Largest Magnitude Saturday Increase over last quarter 11 AM 202.5% ↑
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 -54.4% ↓	Largest Magnitude Sun./Holiday Decrease over last quarter 6 AM -72.3% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago 11 AM 83.2% ↑	Largest Magnitude Sun./Holiday Increase over last quarter 12 PM 187.1% ↑

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>	<b>Largest Magnitude Decrease over last quarter</b>
	Santa Barbara -41.5%	Santa Barbara -11.8%	
	<b>Largest Magnitude Increase over one year ago</b>	<b>Largest Magnitude Increase over last quarter</b>	
Santa Cruz 13.2%	Santa Cruz 78.6%		
<b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b>		<b>Largest Magnitude Decrease over one year ago</b>	<b>Largest Magnitude Decrease over last quarter</b>
	PM Peak -14.4%	AM Peak -6.4%	
	<b>Largest Magnitude Increase over one year ago</b>	<b>Largest Magnitude Increase over last quarter</b>	
Off-Peak Night 18.8%	PM Peak 52.8%		
<b>Average Number of Good and Bad Detectors</b>		<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>		
22%	2%		

### Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2018 Q2-2017 Q2		Difference 2018 Q2-2018 Q1		Rank		
		2017 Q2	2018 Q1	2018 Q2	Absolute	Percentage	Absolute	Percentage	2017 Q2	2018 Q1	2018 Q2
		SR1	Santa Cruz	210,840	161,009	274,310	63,471	30.1%	113,301	70.4%	1
SR1	Monterey	64,783	32,822	65,372	589	0.9%	32,550	99.2%	3	3	2
US101	Santa Barbara	91,929	60,947	53,740	-38,189	-41.5%	-7,207	-11.8%	2	2	3
SR17	Santa Cruz	57,816	9,274	29,734	-28,082	-48.6%	20,460	220.6%	4	5	4
SR156	San Benito	0	2,519	28,693	28,693		26,173	1039.0%		7	5
US101	San Luis Obispo	32,822	13,561	18,571	-14,251	-43.4%	5,010	36.9%	5	4	6
US101	Monterey	14,204	3,181	5,006	-9,198	-64.8%	1,825	57.4%	6	6	7
SR25	San Benito	0	359	1,288	1,288		929	258.4%		8	8
<b>TOTALS</b>		<b>472,392</b>	<b>283,672</b>	<b>476,713</b>	<b>4,320</b>	<b>0.9%</b>	<b>193,041</b>	<b>68.1%</b>			

Aggregation of new detection data for San Benito County started in quarter 1, 2018. Detection were implemented along SR25 on Bolsa Rd (PM 59.5) and SR156 from San Juan Bautista to Hollister (PM 1.71-R12.024) respectively. Therefore, there are no comparable data for 2017 Q2 for this two Routes.