

District 05 Mobility Performance Report

2019 First Quarter

DEPARTMENT OF TRANSPORTATION

April 25, 2019
: Sam Toh

District 05 Mobility Performance Report

2019 First 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. All of the counties are in an urban setting within the cities limit and rural outside city limit. Santa Cruz and Santa Barbara are the top two most congested counties in the 1st 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 first quarter, total delay equaled 288,700 thousand vehicle hours of delay (VHD) at the 35mph speed threshold, and 654,200 thousand VHD at the 60mph threshold. The average weekday delay experienced in this quarter was approximately 4,051 thousand VHD at 35 mph, and 9,146 thousand VHD at 60 mph.

Top Ten Bottlenecks for Quarter 1

County	Fwy	Location	Type	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	SR1-S	STATE PARK DR AT HWY 1 SB VDS ML	ML	PM	362.07	10.772	51	3.80784	22311.1	6215
SB	US101-S	CABRILLO BLVD SB 101 PM 94.57 VD	ML	PM	94.55	11.662	61	0.9	11661.6	13395
SCR	SR1-N	41ST ST EXIT AT HWY 1 SB VDS MLN	ML	AM	365.27	13.929	53	4.07736	11284.6	4655
MON	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	ML	PM	330.075	79.54	56	1.31607	8569.7	6610
SCR	SR1-S	PARK AVE AT HWY 1 NB VDS MLSB SB	ML	PM	363.178	11.88	53	2.37547	5919.1	3015
SBT	SR25-N	2300' S OF SANTA CLARA COUNTY	ML	AM	71.488	59.5	8	3.1	5477.7	1635
SCR	SR1-N	SOQUEL DR NEXT EXIT SIGN HWY 1 N	ML	AM	365.75	14.409	18	5.11111	4731.9	1285
MON	SR1-N	SOUTH OF HWY 68 EAST AT HWY 1 NB	ML	PM	328.558	78.023	34	1.77353	4555.3	2010
SCR	SR1-S	STATE PARK DR AT HWY 1 NB VDS ML	ML	PM	361.617	10.319	16	5.025	4359.2	800
SB	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	ML	PM	87.528	4.63200	46	1.7	2924	3485

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Millions)</p> <table border="1"> <tr><th>Period</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>786.8</td></tr> <tr><td>2018 Q4</td><td>857.8</td></tr> <tr><td>2019 Q1</td><td>844.8</td></tr> </table>	Period	Value	2018 Q1	786.8	2018 Q4	857.8	2019 Q1	844.8	Over one year ago	Over last quarter
		Period	Value								
2018 Q1	786.8										
2018 Q4	857.8										
2019 Q1	844.8										
		7.4% ↑	-1.5% ↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Period</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>283.7</td></tr> <tr><td>2018 Q4</td><td>314.1</td></tr> <tr><td>2019 Q1</td><td>288.7</td></tr> </table>	Period	Value	2018 Q1	283.7	2018 Q4	314.1	2019 Q1	288.7	Over one year ago	Over last quarter
		Period	Value								
2018 Q1	283.7										
2018 Q4	314.1										
2019 Q1	288.7										
		1.8% ↑	-8.1% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Period</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>3793</td></tr> <tr><td>2018 Q4</td><td>4392</td></tr> <tr><td>2019 Q1</td><td>4051</td></tr> </table>	Period	Value	2018 Q1	3793	2018 Q4	4392	2019 Q1	4051	Over one year ago	Over last quarter
		Period	Value								
2018 Q1	3793										
2018 Q4	4392										
2019 Q1	4051										
		6.8% ↑	-7.8% ↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Period</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>599.6</td></tr> <tr><td>2018 Q4</td><td>736.4</td></tr> <tr><td>2019 Q1</td><td>654.2</td></tr> </table>	Period	Value	2018 Q1	599.6	2018 Q4	736.4	2019 Q1	654.2	Over one year ago	Over last quarter
		Period	Value								
2018 Q1	599.6										
2018 Q4	736.4										
2019 Q1	654.2										
		9.1% ↑	-11.2% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours</p> <table border="1"> <tr><th>Period</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>7987</td></tr> <tr><td>2018 Q4</td><td>9923</td></tr> <tr><td>2019 Q1</td><td>9146</td></tr> </table>	Period	Value	2018 Q1	7987	2018 Q4	9923	2019 Q1	9146	Over one year ago	Over last quarter
		Period	Value								
2018 Q1	7987										
2018 Q4	9923										
2019 Q1	9146										
		14.5% ↑	-7.8% ↓								

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
		Sun/Hol -22% ↓	Friday -21.2% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Monday 47% ↑	Monday 36.7% ↑
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
		8 AM -12.3% ↓	5 PM -15.1% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		7 AM 25.5% ↑	10 AM 37.8% ↑
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 -38.9% ↓	5 PM -39.8% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		9 AM 227.5% ↑	12 PM 35% ↑
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 -52.9% ↓	4 PM -68.3% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		11 AM 105.5% ↑	7 PM 129.4% ↑

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	<p>Hours (Thousands)</p> <p>■ 2018 Q1 ■ 2018 Q4 ■ 2019 Q1</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Santa Cruz -12.8% ↓	Santa Cruz -21.8% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		San Benito 623% ↑	San Luis Obispo 40.4% ↑
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	<p>Miles</p> <p>■ 2018 Q1 ■ 2018 Q4 ■ 2019 Q1</p>	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Off-Peak Day -12.5% ↓	PM Peak -19.3% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Off-Peak Night 113.4% ↑	Off-Peak Night 431% ↑
Average Number of Good and Bad Detectors	<p>Number of Detectors</p> <p>■ Average of Good ■ Average of Bad</p>	Change in Good over one year ago	Change in Good over last quarter
		3% ↑	-6% ↓
		Change in Bad over one year ago	Change in Bad over last quarter
		157% ↑	14% ↑

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2019 Q1-2018 Q1		Difference 2019 Q1-2018 Q4		Rank		
		2018 Q1	2018 Q4	2019 Q1	Absolute	Percentage	Absolute	Percentage	2018 Q1	2018 Q4	2019 Q1
SR1	Santa Cruz	161,009	178,267	125,771	-35,238	-21.9%	-52,496	-29.4%	1	1	1
US101	Santa Barbara	60,947	49,044	56,039	-4,908	-8.1%	6,996	14.3%	2	2	2
SR1	Monterey	32,822	32,881	32,143	-679	-2.1%	-738	-2.2%	3	3	3
US101	San Luis Obispo	13,561	19,841	27,847	14,287	105.4%	8,007	40.4%	4	4	4
SR17	Santa Cruz	9,274	11,786	22,797	13,522	145.8%	11,010	93.4%	5	5	5
SR25	San Benito	359	5,278	20,501	20,142	5604.3%	15,223	288.4%	8	8	6
US101	Monterey	3,181	6,998	3,243	62	1.9%	-3,755	-53.7%	6	7	7
SR156	San Benito	2,519	10,010	311	-2,209	-87.7%	-9,699	-96.9%	7	6	8
TOTALS		283,672	314,105	288,651	4,979	1.8%	-25,453	-8.1%			