

District 05 Mobility Performance Report

2017 First Quarter

DEPARTMENT OF TRANSPORTATION

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: Sam Toh

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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. There is no detection in San Benito County currently. 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 261,900 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold, and 545,600 thousand VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 3,773 thousand VHD at 35 mph, and 7,728 thousand VHD at 60 mph.

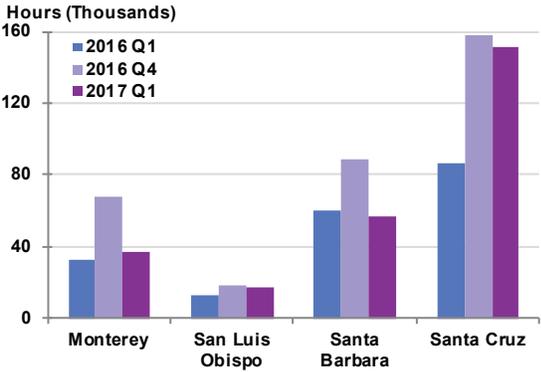
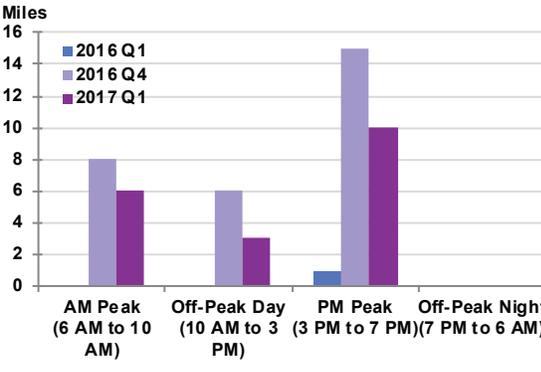
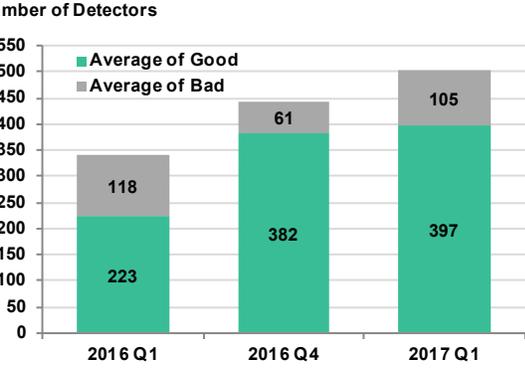
Top Ten Bottlenecks for Quarter 1

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	36	3.89722	21673.2	5825
MON	SR1-N	CASA VERDE WAY HWY 1 SB VDS MLNB	ML	PM	329.082	78.547	40	2.35	11723	4765
SCR	SR1-N	41ST ST EXIT AT HWY 1 SB VDS MLN	ML	AM	365.27	13.929	39	4.54103	10899.8	4145
SB	US101-S	SAN YSIDRO RD 101 NB VDS MLSB SB	ML	PM	92.928	10.04	50	3.186	7696.4	6100
MON	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	ML	PM	330.075	79.54	57	1.17018	5233.4	6810
SCR	SR1-N	SOQUEL AVE AT HWY 1 SB VDS MLNB	ML	PM	366.342	15.001	21	1.82857	5053.8	2895
SCR	SR1-S	SOQUEL DR NEXT EXIT SIGN HWY 1 N	ML	PM	365.708	14.41	33	1.66364	4976.2	3495
SB	US101-S	SANTA CLAUS LANE 101 SB VDS MLSB	ML	PM	87.528	4.632	42	1.7	4299.5	4915
SB	US101-N	EVANS AVE 101 NB VDS MLNB NB	ML	AM	90.984	8.061	36	4.23611	3804.5	2570
SCR	SR1-S	PARK AVE AT HWY 1 NB VDS MLSB SB	ML	PM	363.178	11.88	33	2.39394	3750.8	1900

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Millions)</p> <table border="1"> <tr><th>Period</th><th>VMT (Millions)</th></tr> <tr><td>2016 Q1</td><td>408.4</td></tr> <tr><td>2016 Q4</td><td>709.8</td></tr> <tr><td>2017 Q1</td><td>716.3</td></tr> </table>	Period	VMT (Millions)	2016 Q1	408.4	2016 Q4	709.8	2017 Q1	716.3	Over one year ago	Over last quarter
		Period	VMT (Millions)								
2016 Q1	408.4										
2016 Q4	709.8										
2017 Q1	716.3										
		75.4%	0.9%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Period</th><th>VHD (Thousands)</th></tr> <tr><td>2016 Q1</td><td>193.9</td></tr> <tr><td>2016 Q4</td><td>333.9</td></tr> <tr><td>2017 Q1</td><td>261.9</td></tr> </table>	Period	VHD (Thousands)	2016 Q1	193.9	2016 Q4	333.9	2017 Q1	261.9	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2016 Q1	193.9										
2016 Q4	333.9										
2017 Q1	261.9										
		35.1%	-21.6%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Period</th><th>VHD (Hours)</th></tr> <tr><td>2016 Q1</td><td>2471</td></tr> <tr><td>2016 Q4</td><td>4839</td></tr> <tr><td>2017 Q1</td><td>3773</td></tr> </table>	Period	VHD (Hours)	2016 Q1	2471	2016 Q4	4839	2017 Q1	3773	Over one year ago	Over last quarter
		Period	VHD (Hours)								
2016 Q1	2471										
2016 Q4	4839										
2017 Q1	3773										
		52.7%	-22%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Period</th><th>VHD (Thousands)</th></tr> <tr><td>2016 Q1</td><td>394.6</td></tr> <tr><td>2016 Q4</td><td>652.7</td></tr> <tr><td>2017 Q1</td><td>545.6</td></tr> </table>	Period	VHD (Thousands)	2016 Q1	394.6	2016 Q4	652.7	2017 Q1	545.6	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
2016 Q1	394.6										
2016 Q4	652.7										
2017 Q1	545.6										
		38.3%	-16.4%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours</p> <table border="1"> <tr><th>Period</th><th>VHD (Hours)</th></tr> <tr><td>2016 Q1</td><td>5,070</td></tr> <tr><td>2016 Q4</td><td>9,160</td></tr> <tr><td>2017 Q1</td><td>7,728</td></tr> </table>	Period	VHD (Hours)	2016 Q1	5,070	2016 Q4	9,160	2017 Q1	7,728	Over one year ago	Over last quarter
		Period	VHD (Hours)								
2016 Q1	5,070										
2016 Q4	9,160										
2017 Q1	7,728										
		52.4%	-15.6%								

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 -26.8%	Friday -21.1%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Tuesday 71.8%	-
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
		11 PM -42.6%	5 PM -27.7%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		8 AM 137.9%	9 AM 78.6%
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
		1 PM -43.1%	12 PM -66.6%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		10 AM 111.1%	7 PM 921.1%
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
		12 PM -43.5%	11 AM -84.1%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		8 PM 245.7%	7 PM 2334.2%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Santa Barbara -6.7% 	Santa Barbara -36.4% 
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Santa Cruz 73.8% 	-
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		-	PM Peak -32.8% 
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 644.7% 	Off-Peak Night 9.8% 
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		78% 	4% 
		Change in Bad over one year ago	Change in Bad over last quarter
		-11% 	73% 

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2017 Q1-2016 Q1		Difference 2017 Q1-2016 Q4		Rank		
		2016 Q1	2016 Q4	2017 Q1	Absolute	Percentage	Absolute	Percentage	2016 Q1	2016 Q4	2017 Q1
		SR1	Santa Cruz	80,342	135,488	93,365	13,023	16.2%	-42,123	-31.1%	1
SR17	Santa Cruz	6,547	22,722	57,639	51,092	780.4%	34,917	153.7%	5	4	2
US101	Santa Barbara	60,479	88,726	56,443	-4,035	-6.7%	-32,283	-36.4%	2	2	3
SR1	Monterey	33,138	61,105	31,737	-1,401	-4.2%	-29,369	-48.1%	3	3	4
US101	San Luis Obispo	13,422	18,939	17,436	4,015	29.9%	-1,502	-7.9%	4	5	5
US101	Monterey	0	6,929	5,331	5,331		-1,598	-23.1%		6	6
TOTALS		193,927	333,909	261,951	68,024	35.1%	-71,958	-21.6%			

New detections were installed in quarter 2, 2016 on US 101 between City of Salinas south to Prunedale area (PM 91.888-98.360, Monterey County). Therefore, there are no comparable data for 2016 Q1 for this Route.