

District 05 Mobility Performance Report

2019 Fourth Quarter

DEPARTMENT OF TRANSPORTATION

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2019 Fourth 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 3rd 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 third quarter, total delay equaled 453,100 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold, and 969,000 thousand VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 6,650 thousand VHD at 35 mph, and 14,000 thousand VHD at 60 mph.

Top Ten Bottlenecks for Quarter 4

County	Fwy	Location	Type	Shift	Abs PM	CA PM	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SCR	SR1-N	PARK AVE AT HWY 1 SB VDS MLNB NB	ML	AM	363.68	12.338	51	3.95	19,608.60	6,500.00
SCR	SR1-S	BAY AVE - PORTER ST AT HWY 1 SB	ML	PM	364.58	13.279	61	0.85	16,552.40	12,830.00
MON	US101-N	CASSITAS PASS RD 101 NB VDS MLNB	ML	AM	85.41	2.485	45	2.37	13,747.50	4,935.00
SB	US101-N	CASSITAS PASS RD 101 NB VDS MLNB	ML	AM	85.41	2.485	45	2.37	13,747.50	4,935.00
SCR	SR1-N	BAY AVE - PORTER ST AT HWY 1 NB	ML	PM	364.37	13.032	61	0.51	8,756.30	13,090.00
SCR	SR1-S	SOQUEL DR NEXT EXIT SIGN HWY 1 N	ML	PM	365.71	14.41	49	1.07	8,170.30	7,150.00
SCR	SR1-S	STATE PARK DR AT HWY 1 SB VDS ML	ML	PM	362.07	10.772	45	2.03	6,802.40	5,740.00
SCR	SR1-N	RIO DEL MAR BLVD AT HWY 1 SB VDS	ML	AM	360.89	9.553	52	3.19	6,229.60	3,015.00
SCR	SR1-S	700' N of 001 NB Overcrossing	ML	AM	368.51	17.21	39	6.05	4,559.50	2,565.00
SLO	US101-S	SPYGLASS DR 101 SB VDS MLSB SB	ML	PM	193.32	19.797	47	1.89	4,324.20	4,720.00

Quarterly Mobility Statistics

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	Miles (Millions) <table><tr><th>Quarter</th><th>VMT (Millions)</th></tr><tr><td>2018 Q4</td><td>857.8</td></tr><tr><td>2019 Q3</td><td>985.9</td></tr><tr><td>2019 Q4</td><td>946.1</td></tr></table>	Quarter	VMT (Millions)	2018 Q4	857.8	2019 Q3	985.9	2019 Q4	946.1	Over one year ago	Over last quarter
		Quarter	VMT (Millions)								
2018 Q4	857.8										
2019 Q3	985.9										
2019 Q4	946.1										
		10.3% ↑	-4% ↓								
Total Vehicle Hours of Delay (VHD) at 35 mph	Hours (Thousands) <table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2018 Q4</td><td>314.1</td></tr><tr><td>2019 Q3</td><td>617.3</td></tr><tr><td>2019 Q4</td><td>453.1</td></tr></table>	Quarter	VHD (Thousands)	2018 Q4	314.1	2019 Q3	617.3	2019 Q4	453.1	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2018 Q4	314.1										
2019 Q3	617.3										
2019 Q4	453.1										
		44.2% ↑	-26.6% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	Hours <table><tr><th>Quarter</th><th>VHD (Hours)</th></tr><tr><td>2018 Q4</td><td>4392</td></tr><tr><td>2019 Q3</td><td>7171</td></tr><tr><td>2019 Q4</td><td>6646</td></tr></table>	Quarter	VHD (Hours)	2018 Q4	4392	2019 Q3	7171	2019 Q4	6646	Over one year ago	Over last quarter
		Quarter	VHD (Hours)								
2018 Q4	4392										
2019 Q3	7171										
2019 Q4	6646										
		51.3% ↑	-7.3% ↓								
Total Vehicle Hours of Delay (VHD) at 60 mph	Hours (Millions) <table><tr><th>Quarter</th><th>VHD (Millions)</th></tr><tr><td>2018 Q4</td><td>0.7</td></tr><tr><td>2019 Q3</td><td>1.3</td></tr><tr><td>2019 Q4</td><td>1.0</td></tr></table>	Quarter	VHD (Millions)	2018 Q4	0.7	2019 Q3	1.3	2019 Q4	1.0	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
2018 Q4	0.7										
2019 Q3	1.3										
2019 Q4	1.0										
		31.6% ↑	-23.2% ↓								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	Hours (Thousands) <table><tr><th>Quarter</th><th>VHD (Thousands)</th></tr><tr><td>2018 Q4</td><td>10</td></tr><tr><td>2019 Q3</td><td>15</td></tr><tr><td>2019 Q4</td><td>14</td></tr></table>	Quarter	VHD (Thousands)	2018 Q4	10	2019 Q3	15	2019 Q4	14	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
2018 Q4	10										
2019 Q3	15										
2019 Q4	14										
		40.2% ↑	-5.4% ↓								

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 -32.8%	Saturday -56.8%
		Largest Magnitude Increase over one year ago Monday 83%	Largest Magnitude Increase over last quarter
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 -22.1%
		Largest Magnitude Weekday Increase over one year ago 7 AM 70.2%	Largest Magnitude Weekday Increase over last quarter 8 AM 32.1%
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
		4 PM -37.2%	1 PM -57.3%
		Largest Magnitude Saturday Increase over one year ago 12 PM 142.7%	Largest Magnitude Saturday Increase over last quarter 11 PM 110.4%
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
		4 PM -76.8%	12 PM -82.7%
		Largest Magnitude Sun./Holiday Increase over one year ago 9 AM 359.5%	Largest Magnitude Sun./Holiday Increase over last quarter 9 AM 118%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	Hours (Thousands)	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		San Benito -61.9% ↓	Santa Cruz -31.2% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Santa Barbara 106.7% ↑	Santa Barbara 38.1% ↑
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	Miles	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		—	PM Peak -19.2% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 38% ↑	AM Peak 28.2% ↑
Average Number of Good and Bad Detectors	Number of Detectors	Change in Good over one year ago	Change in Good over last quarter
		39% ↑	4% ↑
		Change in Bad over one year ago	Change in Bad over last quarter
		5% ↑	-11% ↓

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2019 Q4-2018 Q4		Difference 2019 Q4-2019 Q3		Rank		
		2018 Q4	2019 Q3	2019 Q4	Absolute	Percentage	Absolute	Percentage	2018 Q4	2019 Q3	2019 Q4
SR1	Santa Cruz	178,267	297,377	197,966	19,699	11.1%	-99,410	-33.4%	1	1	1
US101	Santa Barbara	49,044	73,376	101,355	52,311	106.7%	27,978	38.1%	2	3	2
SR1	Monterey	32,881	104,495	50,635	17,754	54.0%	-53,860	-51.5%	3	2	3
US101	San Luis Obispo	19,841	39,693	36,087	16,246	81.9%	-3,606	-9.1%	4	4	4
SR17	Santa Cruz	11,786	36,937	32,082	20,296	172.2%	-4,855	-13.1%	5	5	5
SR68	Monterey	0	22,440	18,090	18,090		-4,350	-19.4%		7	6
US101	Monterey	6,998	18,563	11,022	4,024	57.5%	-7,541	-40.6%	7	8	7
SR156	San Benito	10,010	24,050	5,829	-4,181	-41.8%	-18,222	-75.8%	6	6	8
SR25	San Benito	5,278	377	0	-5,278	-100.0%	-377	-100.0%	8	9	
TOTALS		314,105	617,307	453,065	138,961	44.2%	-164,242	-26.6%			

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.