

District 05 Mobility Performance Report

2024 First Quarter

DEPARTMENT OF TRANSPORTATION

June 4, 2024
David Gallego

2024 First 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 Monterey were 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 295,000 vehicle hours of delay (VHD) at the 35 mph speed threshold, and 711,600 VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 4,458 VHD at 35 mph, and 10,338 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	BAY AVE - PORTER ST AT HWY 1 SB	ML	PM	364.577	13.279	61	2.25246	40,474.8	12,090
MON	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	ML	PM	330.075	R79.54	60	2.86333	31,147.5	7,710
SCR	SR1-N	PARK AVE AT HWY 1 SB VDS MLNB NB	ML	AM	363.679	12.338	50	3.638	24,379.5	5,275
MON	SR1-S	SOUTH OF FREMONT BLVD AT HWY 1 N	ML	AM	330.929	R80.46	60	3.64167	23,169.9	4,975
SB	US101-S	OLIVE MILL RD 101 NB VDS MLSB SB	ML	PM	93.295	10.407	54	1.95	17,460.4	5,775
SCR	SR1-S	STATE PARK DR AT HWY 1 NB VDS ML	ML	PM	361.617	10.319	50	2.514	13,814.2	5,150
MON	SR68-E	LAGUNA SECA MAIN ENTRANCE HWY 68	ML	PM	11.238	11.034	61	2.5	9,796.2	10,710
SB	US101-S	HERMOSILLO RD 101 NB VDS MLSB SB	ML	PM	93.968	11.08	50	1.552	8,459.5	2,840
SCR	SR1-N	BAY AVE - PORTER ST AT HWY 1 NB	ML	PM	364.373	13.032	61	0.5	8,409.9	12,210
SCR	SR1-S	RIO DEL MAR BLVD AT HWY 1 NB VDS	ML	PM	360.312	9.0141	29	2.35862	7,973.1	2,550

SPECIAL CIRCUMSTANCE

The performance factor titled Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Sunday/Holiday had a special circumstance in Quarter 1 of 2024 that warrants discussion. The largest absolute increase for Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Sunday/Holiday when comparing Quarter 1 of 2024 to Quarter 4 of 2023 occurred in the 2:00 AM hour. Quarter 4 of 2023 had zero hours of vehicle delay in the 2:00 AM hour while Quarter 1 of 2024 had 0.026667 hours of vehicle delay in the 2:00 AM hour. Because Quarter 4 of 2023 had zero hours of vehicle delay, the calculation for magnitude increase experienced the error of dividing by zero. The only other hour which had an increase for Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Sunday/Holiday when comparing Quarter 1 of 2024 to Quarter 4 of 2023 also had the same error of dividing by zero which was the 0:00 AM hour that had an

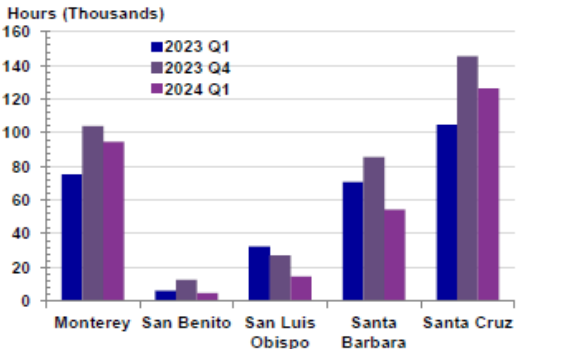


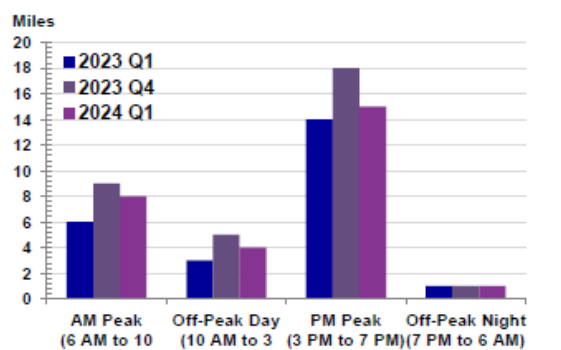


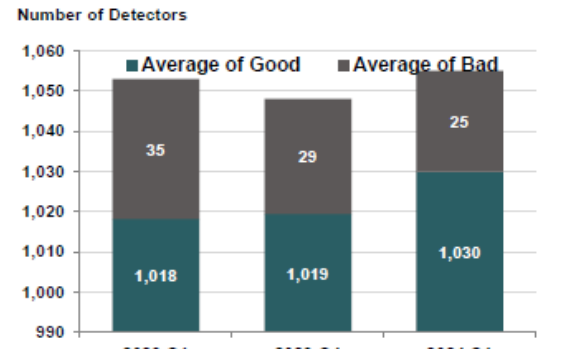




absolute increase of 0.00625 hours over Quarter 4 of 2023. Sundays/Holidays in Quarter 1 of 2024 had 18 separate hours where the average hours of vehicle delay decreased between Quarter 4 of 2023 and Quarter 1 of 2024 and 3 separate hours that experienced zero hours of average hours of vehicle delay in Quarter 4 of 2023.

Quarterly Mobility Statistics

2024 Q-1 Quarterly Mobility Statistics District 5

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>Period</th><th>Value</th></tr> <tr><td>2023 Q1</td><td>952.98</td></tr> <tr><td>2023 Q4</td><td>994.31</td></tr> <tr><td>2024 Q1</td><td>956.07</td></tr> </table>	Period	Value	2023 Q1	952.98	2023 Q4	994.31	2024 Q1	956.07	0.3%	-3.8%
Period	Value										
2023 Q1	952.98										
2023 Q4	994.31										
2024 Q1	956.07										
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>2023 Q1</td><td>289.9</td></tr> <tr><td>2023 Q4</td><td>374.9</td></tr> <tr><td>2024 Q1</td><td>295</td></tr> </table>	Period	Value	2023 Q1	289.9	2023 Q4	374.9	2024 Q1	295	1.8%	-21.3%
Period	Value										
2023 Q1	289.9										
2023 Q4	374.9										
2024 Q1	295										
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>2023 Q1</td><td>3,990</td></tr> <tr><td>2023 Q4</td><td>5,409</td></tr> <tr><td>2024 Q1</td><td>4,458</td></tr> </table>	Period	Value	2023 Q1	3,990	2023 Q4	5,409	2024 Q1	4,458	11.7%	-17.6%
Period	Value										
2023 Q1	3,990										
2023 Q4	5,409										
2024 Q1	4,458										
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>2023 Q1</td><td>665.7</td></tr> <tr><td>2023 Q4</td><td>866.6</td></tr> <tr><td>2024 Q1</td><td>711.6</td></tr> </table>	Period	Value	2023 Q1	665.7	2023 Q4	866.6	2024 Q1	711.6	6.9%	-17.9%
Period	Value										
2023 Q1	665.7										
2023 Q4	866.6										
2024 Q1	711.6										
Average Non-Holiday Weekday 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>2023 Q1</td><td>9</td></tr> <tr><td>2023 Q4</td><td>12</td></tr> <tr><td>2024 Q1</td><td>10</td></tr> </table>	Period	Value	2023 Q1	9	2023 Q4	12	2024 Q1	10	13%	-14.7%
Period	Value										
2023 Q1	9										
2023 Q4	12										
2024 Q1	10										

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 -45.6%	Thursday -16.5%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
Tuesday 38.2%	-		
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
		7 PM -72.9%	3 PM -23.6%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
4 PM 10.9%	12 AM 12.2%		
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
		2 PM -66.7%	4 PM -66.2%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
7 PM 120.5%	10 AM 117.2%		
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
		3 PM -79.9%	2 PM -78.5%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
10 AM 22.6%	#DIV/0!		

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
	San Luis Obispo -55.1%	Santa Barbara -36.2% 	
	Largest Magnitude Increase over one year ago	Santa Cruz 20.7% 	Largest Magnitude Increase over last quarter
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
	Off-Peak Night -6.9%	PM Peak -18.8% 	
	Largest Magnitude Increase over one year ago	AM Peak 29.8% 	Largest Magnitude Increase over last quarter
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
	1% 	1% 	
	Change in Bad over one year ago	-28% 	Change in Bad over last quarter
		-12% 	

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2024 Q1-2023 Q1		Difference 2024 Q1-2023 Q4		Rank		
		2023 Q1	2023 Q4	2024 Q1	Absolute	Percentage	Absolute	Percentage	2023 Q1	2023 Q4	2024 Q1
SR1	Santa Cruz	101,243	131,980	111,604	10,361	10.2%	-20,376	-15.4%	1	1	1
SR1	Monterey	47,564	64,891	60,035	12,471	26.2%	-4,856	-7.5%	3	3	2
US101	Santa Barbara	70,731	85,577	54,597	-16,134	-22.8%	-30,981	-36.2%	2	2	3
SR68	Monterey	16,991	24,254	22,869	5,878	34.6%	-1,385	-5.7%	5	5	4
SR17	Santa Cruz	3,435	13,341	14,723	11,288	328.6%	1,382	10.4%	8	7	5
US101	San Luis Obis	32,676	27,264	14,425	-18,251	-55.9%	-12,839	-47.1%	4	4	6
US101	Monterey	10,790	14,920	11,721	931	8.6%	-3,200	-21.4%	6	6	7
SR156	San Benito	6,437	12,678	4,833	-1,604	-24.9%	-7,845	-61.9%	7	8	8
SR46	San Luis Obis	0	0	232	232		232				9
TOTALS		289,867	374,905	295,039	5,172	1.8%	-79,866	-21.3%			