

# District 05 Mobility Performance Report

2023 Fourth Quarter

**DEPARTMENT OF TRANSPORTATION**

January 16, 2024  
David Gallego

2023 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 Monterey were the top two most congested counties in the 4th 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 fourth, total delay equaled 374,900 vehicle hours of delay (VHD) at the 35 mph speed threshold, and 866,600 VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 5,409 VHD at 35 mph, and 12,126 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-S	BAY AVE - PORTER ST AT HWY 1 SB	ML	PM	364.577	13.279	62	1.84516	31,516.5	12,680
MON	SR1-N	CANYON DEL REY BLVD AT HWY 1 NB	ML	PM	330.075	R79.54	60	2.85167	30,800.3	8,255
SB	US101-S	OLIVE MILL RD 101 NB VDS MLSB SB	ML	PM	93.295	10.407	62	1.97903	28,646.5	8,710
SCR	SR1-N	PARK AVE AT HWY 1 SB VDS MLNB NB	ML	AM	363.679	12.338	55	2.84182	25,400.2	6,640
MON	SR1-S	SOUTH OF FREMONT BLVD AT HWY 1 N	ML	AM	330.929	R80.46	51	4.2902	22,856.4	4,200
SCR	SR1-S	STATE PARK DR AT HWY 1 NB VDS ML	ML	PM	361.617	10.319	56	2.08214	12,771.3	5,880
MON	SR68-E	LAGUNA SECA MAIN ENTRANCE HWY 68	ML	PM	11.238	11.034	63	2.5	10,113.2	10,760
SLO	US101-S	SPYGLASS DR 101 SB VDS MLSB SB	ML	PM	193.322	R19.797	54	1.75926	9,888.6	5,140
SCR	SR1-N	STATE PARK DR AT HWY 1 NB VDS ML	ML	AM	361.659	10.318	43	3.26512	9,543.9	2,305
SCR	SR1-S	RIO DEL MAR BLVD AT HWY 1 NB VDS	ML	PM	360.312	9.0141	40	2.5925	9,107.3	3,450

## SPECIAL CIRCUMSTANCE

The performance factor titled Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Saturday had a special circumstance in Quarter 4 of 2023 that warrants discussion. The largest absolute increase for Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Saturday when comparing Quarter 4 of 2023 to Quarter 3 of 2023 occurred in the 12:00 AM hour. Quarter 3 of 2023 had zero hours of vehicle delay in the 12:00 AM hour while Quarter 4 of 2023 had 1.58 hours of vehicle delay in the 12:00 AM hour. Because Quarter 3 of 2023 had zero hours of vehicle delay, the calculation for magnitude increase experienced the error of dividing by zero. The 4:00 AM hour experienced the same error of dividing by zero. Saturdays in Quarter 4 of 2023 had 18 separate hours where the average hours of vehicle delay decreased between Quarter 3 and Quarter 4 of 2023 and 3 separate hours that experienced zero hours of average

hours of vehicle delay in Quarter 4 of 2023. The only hour which had an increase for Average Vehicle Hours of Delay by Hour of Day at 35 mph on a Saturday when comparing Quarter 4 to Quarter 3 of 2023 that did not have the error of dividing by zero was the 6:00 AM hour and which had an absolute increase of 0.25 hours which is a 183.4% increase over Quarter 3 of 2023.

## Quarterly Mobility Statistics

Measure	Graph	Percentage Change							
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2022</td><td>0.97</td></tr> <tr><td>2023</td><td>0.99</td></tr> </table>	Year	Q4	2022	0.97	2023	0.99	Over one year ago	Over last quarter
		Year	Q4						
2022	0.97								
2023	0.99								
		2.3%	-6.8%						
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2022</td><td>276.5</td></tr> <tr><td>2023</td><td>374.9</td></tr> </table>	Year	Q4	2022	276.5	2023	374.9	Over one year ago	Over last quarter
		Year	Q4						
2022	276.5								
2023	374.9								
		35.6%	-34.8%						
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2022</td><td>4,022</td></tr> <tr><td>2023</td><td>5,409</td></tr> </table>	Year	Q4	2022	4,022	2023	5,409	Over one year ago	Over last quarter
		Year	Q4						
2022	4,022								
2023	5,409								
		34.5%	-27.1%						
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2022</td><td>0.7</td></tr> <tr><td>2023</td><td>0.9</td></tr> </table>	Year	Q4	2022	0.7	2023	0.9	Over one year ago	Over last quarter
		Year	Q4						
2022	0.7								
2023	0.9								
		29.5%	-29.9%						
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2022</td><td>9</td></tr> <tr><td>2023</td><td>12</td></tr> </table>	Year	Q4	2022	9	2023	12	Over one year ago	Over last quarter
		Year	Q4						
2022	9								
2023	12								
		29.2%	-21.8%						

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
		-	Saturday -57.3%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Thursday 30%	-
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
		-	4 PM -25.7%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		8 AM 80.3%	8 PM 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
		7 PM -90.6%	2 PM -72.8%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		4 PM 160.3%	12 AM #DIV/0
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
		8 AM -43%	2 PM -61.9%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		10 AM 530.7%	10 AM 202.2%

Measure	Graph	Percentage Change																									
<b>Total Vehicle Hours of Delay (VHD) by County at 35 mph</b>	<p>Hours (Thousands)</p> <table border="1"> <caption>Total Vehicle Hours of Delay (VHD) by County at 35 mph</caption> <thead> <tr> <th>County</th> <th>2022 Q4</th> <th>2023 Q3</th> <th>2023 Q4</th> </tr> </thead> <tbody> <tr> <td>Monterey</td> <td>~75</td> <td>~200</td> <td>~100</td> </tr> <tr> <td>San Benito</td> <td>~10</td> <td>~30</td> <td>~15</td> </tr> <tr> <td>San Luis Obispo</td> <td>~15</td> <td>~40</td> <td>~25</td> </tr> <tr> <td>Santa Barbara</td> <td>~75</td> <td>~115</td> <td>~85</td> </tr> <tr> <td>Santa Cruz</td> <td>~100</td> <td>~180</td> <td>~145</td> </tr> </tbody> </table>	County	2022 Q4	2023 Q3	2023 Q4	Monterey	~75	~200	~100	San Benito	~10	~30	~15	San Luis Obispo	~15	~40	~25	Santa Barbara	~75	~115	~85	Santa Cruz	~100	~180	~145	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
County	2022 Q4	2023 Q3	2023 Q4																								
Monterey	~75	~200	~100																								
San Benito	~10	~30	~15																								
San Luis Obispo	~15	~40	~25																								
Santa Barbara	~75	~115	~85																								
Santa Cruz	~100	~180	~145																								
		Monterey -49.1%																									
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter																								
		Santa Cruz 46.1%																									
<b>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</b>	<p>Miles</p> <table border="1"> <caption>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</caption> <thead> <tr> <th>Time Period</th> <th>2022 Q4</th> <th>2023 Q3</th> <th>2023 Q4</th> </tr> </thead> <tbody> <tr> <td>AM Peak (6 AM to 10 AM)</td> <td>~5</td> <td>~10</td> <td>~9</td> </tr> <tr> <td>Off-Peak Day (10 AM to 3 PM)</td> <td>~4</td> <td>~9</td> <td>~5</td> </tr> <tr> <td>PM Peak (3 PM to 7 PM)</td> <td>~14</td> <td>~24</td> <td>~18</td> </tr> <tr> <td>Off-Peak Night (7 PM to 6 AM)</td> <td>~1</td> <td>~2</td> <td>~1</td> </tr> </tbody> </table>	Time Period	2022 Q4	2023 Q3	2023 Q4	AM Peak (6 AM to 10 AM)	~5	~10	~9	Off-Peak Day (10 AM to 3 PM)	~4	~9	~5	PM Peak (3 PM to 7 PM)	~14	~24	~18	Off-Peak Night (7 PM to 6 AM)	~1	~2	~1	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter				
Time Period	2022 Q4	2023 Q3	2023 Q4																								
AM Peak (6 AM to 10 AM)	~5	~10	~9																								
Off-Peak Day (10 AM to 3 PM)	~4	~9	~5																								
PM Peak (3 PM to 7 PM)	~14	~24	~18																								
Off-Peak Night (7 PM to 6 AM)	~1	~2	~1																								
		PM Peak -26.3%																									
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter																								
		PM Peak 26.1%																									
<b>Average Number of Good and Bad Detectors</b>	<p>Number of Detectors</p> <table border="1"> <caption>Average Number of Good and Bad Detectors</caption> <thead> <tr> <th>Quarter</th> <th>Average of Good</th> <th>Average of Bad</th> </tr> </thead> <tbody> <tr> <td>2022 Q4</td> <td>1,028</td> <td>20</td> </tr> <tr> <td>2023 Q3</td> <td>1,019</td> <td>31</td> </tr> <tr> <td>2023 Q4</td> <td>1,019</td> <td>29</td> </tr> </tbody> </table>	Quarter	Average of Good	Average of Bad	2022 Q4	1,028	20	2023 Q3	1,019	31	2023 Q4	1,019	29	Change in Good over one year ago	Change in Good over last quarter												
Quarter	Average of Good	Average of Bad																									
2022 Q4	1,028	20																									
2023 Q3	1,019	31																									
2023 Q4	1,019	29																									
		-1%	0%																								
		Change in Bad over one year ago	Change in Bad over last quarter																								
		40%	-9%																								

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2023 Q4-2022 Q4		Difference 2023 Q4-2023 Q3		Rank		
		2022 Q4	2023 Q3	2023 Q4	Absolute	Percentage	Absolute	Percentage	2022 Q4	2023 Q3	2023 Q4
SR1	Santa Cruz	95,259	158,480	131,980	36,721	38.5%	-26,500	-16.7%	1	1	1
US101	Santa Barbara	77,813	117,528	85,577	7,764	10.0%	-31,951	-27.2%	2	3	2
SR1	Monterey	44,087	135,525	64,891	20,804	47.2%	-70,635	-52.1%	3	2	3
US101	San Luis Obis	14,466	41,228	27,264	12,798	88.5%	-13,965	-33.9%	6	4	4
SR68	Monterey	15,874	36,479	24,254	8,380	52.8%	-12,225	-33.5%	4	5	5
US101	Monterey	14,563	32,425	14,920	358	2.5%	-17,505	-54.0%	5	6	6
SR17	Santa Cruz	4,192	23,295	13,341	9,149	218.2%	-9,954	-42.7%	8	8	7
SR156	San Benito	10,295	29,884	12,678	2,383	23.1%	-17,206	-57.6%	7	7	8
<b>TOTALS</b>		<b>276,549</b>	<b>574,844</b>	<b>374,905</b>	<b>98,356</b>	<b>35.6%</b>	<b>-199,939</b>	<b>-34.8%</b>			