

District 10 Mobility Performance Report

2025 Q2

DEPARTMENT OF TRANSPORTATION

Definitions

- **Vehicle Miles of Travel (VMT):** Total miles driven by all the vehicles over a freeway segment during a specified time period. When plotted over a spatial segment, this quantity is simply the sum of VMT from the individual detectors. Users can query VMT reports for any freeway (or segment) available in PeMS. At a freeway segment page in PeMS, users can select the VMT reports by using the Performance pull-down menu and selecting Aggregates. There are three types of Aggregates reports: Time Series, Time of Day, and Day of Week.
- **Vehicle Hours of Delay (VHD):** Amount of extra time spent by all the vehicles beyond the time it takes to traverse a freeway segment at a threshold speed. In other words, it is the amount of additional time that vehicles spend on the roadway due to congestion. PeMS can compute the amount of delay using different threshold speeds (i.e., 35, 40, 45, 50, 55, 60, and 65 miles per hour)
- **Lost Lane Miles Hours (equivalent lost productivity):** Number of lane-mile-hours that are lost due to the freeway operating under congested conditions. When the freeway is in congestion - speed is below 35 mph - PeMS find the ratio between the measured flow and the capacity for this location. This drop in capacity is caused by the freeway is operating in congested conditions instead of in free flow)
- **Detection Health:** Detectors can malfunction for many reasons. For some detectors, this is an intermittent problem. For other detectors, the problem is recurrent. PeMS devotes a large amount of its computing resources to identifying bad detectors and calculating health diagnostics to help users evaluate data quality and to help those responsible for detector maintenance.
- **Bottleneck:** Location where the traffic demand exceeds the available capacity of the roadway facility. Characteristics include reduction in speeds, congestion, queuing, and delay. PeMS can identify a bottleneck at a particular detector where there is a persistent drop in speed from the detector immediately upstream.

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EXECUTIVE SUMMARY

Overview

The Quarterly Mobility Performance Report (MPR) evaluates key traffic performance metrics by comparing current conditions with both the previous quarter and the same period from the prior year. This report provides information on the following performance measures:

- Vehicle Miles Traveled (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Mile Hours
- Detection Health

The information in this report is based on daily data collected 24 hours a day by automated vehicle detector stations across the State Highway System.

Vehicular delay is assessed using two speed thresholds:

- Below 60 mph: Indicates both light and heavy congestion
- Below 35 mph: Indicates severe congestion

Through engineering judgment, Caltrans uses these thresholds and performance measures to identify bottleneck locations and assess congestion severity.

FINDINGS

Summary

Caltrans District 10 contains eight counties located within the Central Valley (San Joaquin, Stanislaus, Merced) and the Sierra Nevada (Alpine, Calaveras, Mariposa, Tuolumne).

- In this Q2 quarter (April to June of 2025), Vehicle Miles Travel (VMT) across all District 10 freeways were 2.09 billion miles, an increase of 9 percent from previous quarter.
- There was 2.6 million Vehicle Hours of Delay (VHD) at the 60-mph speed threshold, an increase of 21.4 percent over previous quarter and an increase of 2 percent from a year ago.
- 64 percent of the 2.6 million VHD were generated in San Joaquin County, 25 percent VHD were generated in Stanislaus County, 8 percent of the VHD were generated in Merced County, 2 percent VHD were generated in Tuolumne County, and 1 percent of VHD were generated by the other 3 counties (Alpine, Amador, Calaveras, Mariposa).
- In this quarter about 91 percent of the total delay in District 10 at the 35-mph speed threshold were generated from 3 freeways, I-205 (81%), SR-120 (7%), SR-99 (4%).
- These delays were equivalent to 33 Lost Lane Miles Hours (LLM)* from the freeway network during the PM Peak Period, compared to 30 LLM from previous quarter.
- The average weekday daily delay in this quarter was approximately 12 Thousand VHD at 35-mph speed threshold, and 36 Thousand VHD at 60-mph speed thresholds (21.4 Percent increase and 12.5 Percent increase respectively over the previous quarter.)
- [Monday - Friday] are the most congested days of the week in this quarter then [Monday - Friday]. Morning peak hour was at 7 AM. Afternoon peak hour was

at 4 PM. The peak periods extended from 6 AM to 10 AM and from 3 PM to 7 PM.

- Weekend's peak hour (Saturday and Sunday) was at 2 PM, and peak period extended between 1 PM and 4 PM.
- By the end of the 2nd quarter, loop detectors in good service condition account for 73 percent of the total loops, while 27 percent of total loop detectors are nonoperational.

Bottleneck Locations

Table 1: Top 20 Bottlenecks for the 2024 Calendar Year:

Location	County	Route	Name	Peak Period (AM/PM)	Abs Postmile (Miles)	CA Postmile (Miles)	Days Observed (Days)	Avg Extent (Miles)	Total Delay (vehicle-hours)	Total Duration (Minutes)
1	SJ	SR12-W	E-O I-5	PM	80.051	10.267	195	0.30	1944.9	54575.0
2	SJ	I205-W	W-O Mtn House Pkwy OC	AM	1.691	0.761	237	3.15	505847.8	54205.0
3	SJ	SR132-E	W-O Off to SR 33	PM	6.824	T6.086	251	1.40	2068.7	47025.0
4	STA	SR132-E	W-O Off to SR 33	AM	6.824	T6.086	251	1.40	894.6	46530.0
5	SJ	SR99-N	5th Street	PM	226.514	R15.454	240	0.40	26976.2	38865.0
6	STA	SR99-S	N-O K St S-O L St	PM	227.105	R16.07	240	0.79	42100	36720.0
7	SJ	SR12-W	E-O I-5	AM	80.051	10.267	195	0.30	1571.3	35740.0
8	SJ	I5-S	N-O Mossdale Rd	PM	459.515	R14.023	229	0.40	19568.7	34585.0
9	SJ	SR99-S	N-O On From Main St	PM	236.561	0.776	234	2.36	121706.6	34055.0
10	SJ	SR12-W	W-O I-5	AM	79.897	10.113	203	0.52	2417.3	31230.0
11	STA	SR99-S	Kansas Ave	PM	227.834	R16.799	218	1.87	82627.9	30680
12	SJ	SR120-E	Mossdale E-O Jct I-5	PM	0.421	R0.914	242	1.10	23509.4	29375
13	SJ	SR99-S	N-O On From Main St	PM	236.553	0.768	201	1.94	12137.7	28880
14	SJ	I5-N	S-O Manthey Rd	PM	458.992	R13.5	213	0.49	24819	27285
15	SJ	SR99-S	N-O Off to Jack Tone Rd	PM	238.756	2.971	202	2.46	110567.4	25980
16	SJ	I205-E	E-O Tom Paine Slough	PM	12.87	R11.94	197	1.80	62982.2	24370
17	SJ	I205-W	E-O Tom Paine Slough	PM	13.125	R12.195	167	1.28	31679.6	18225
18	SJ	I5-N	Five Mile Slough	PM	477.614	32.122	93	2.70	36294.1	17805
19	SJ	I205-E	W-O Mac Arthur Drive UC	PM	9.132	R8.202	166	0.74	22648.2	17515
20	SJ	I205-W	El Rancho Rd UC	PM	11.41	R10.48	175	1.56	36192.7	17270

Table 2: Top 10 Bottlenecks for the 2025 Q2 Quarter:

Location	County	Route	Name	Peak Period (AM/PM)	Abs Postmile (Miles)	CA Postmile (Miles)	Days Observed (Days)	Avg Extent (Miles)	Total Delay (vehicle-hours)	Total Duration (Minutes)
1	SJ	I205-W	E-O I-5	AM	1.691	0.761	63	3.15	132095.8	14555.0
2	SJ	SR12-W	W-O Off to SR 33	PM	80.051	10.267	49	0.30	474.1	12500.0
3	SJ	SR132-E	W-O Mtn House Pkwy OC	AM	6.824	T6.086	63	1.40	275.7	12440.0
4	STA	SR12-W	W-O Off to SR 33	AM	79.897	10.113	63	0.53	950.9	11420.0
5	SJ	SR132-E	5th Street	PM	6.824	T6.086	63	1.40	519	10865.0
6	STA	SR99-S	N-O K St S-O L St	PM	227.105	R16.07	58	2.64	35400.5	9660.0
7	SJ	I5-S	W-O I-5	PM	459.515	R14.023	58	0.40	5015.8	8815.0
8	SJ	SR99-S	N-O On From Main St	PM	236.553	0.768	55	2.27	3052.4	7830.0
9	SJ	I5-N	E-O I-5	PM	458.992	R13.5	58	0.63	7678	7685.0
10	SJ	SR99-S	N-O On From Main St	PM	236.561	0.776	50	2.39	27668.2	7640.0

Bottleneck Mitigation Projects:

The following District 10 projects are currently under construction or scheduled for construction effective April 2025. These projects will help to improve the traffic flow of the on state freeways and highways. These current and future (planned) projects will further relieve congestion in District 10:

Location 1: San Joaquin County

10-1C330, Target Date: 07/07/2028

This project is in the City of Tracy, and it is currently in construction. It is estimated to be completed by July 7th, 2028. This project will install ramp meters and other ITS elements on the ramps to reduce travel times and improve traffic flow.

10-1H170, Target Date: TBD

This project is in the City of Tracy, and it is currently in 0 | PA&ED phase. This is a managed lanes project on I-205 and it will add one HOV lane in each direction of I-205 between SJ and Alameda County line and the junction of I-5. This will reduce congestion and delay along 205 and encourage the usage of HOV in the I-205 corridor. The project is estimated to complete its current phase on August 13th, 2027.

10-1E74U, Target Date: 04/15/29

This project is in the City of Manteca, and it is currently in construction. It is estimated to be completed on April 15th, 2029. This project will extend auxiliary lanes on SR 99 in SB and NB

directions and will extend the entrance lane from SR 120 in SB direction. This project will help reduce congestion and improve safety on SR 99.

10-1F180, Target Date: 4/23/2032

This project is in the City of Stockton, and it is currently in construction. It is estimated to be completed by September 25th, 2028. This project will install ramp metering, TMS elements, CCTV and synchronized intersection signals with ramp metering. This project will help reduce congestion and improve travel times from I-5 to SR 99.

Location 2: Stanislaus County

10-1H350, Target Date: 4/23/2032

This project is in the City of Modesto, and it is currently in PS&E phase. It is estimated to be completed by April 23rd, 2032. This project will install ramp metering, add HOV preferential lanes, and mixed flow lanes on SR 99. This project will increase safety and improve travel times.

10-40352, Target Date: 10/29/2032

This project is in the City of Modesto, and it is currently in PS&E phase. This is Phase II of the project that will add 2 lanes to the existing 2 lane, access controlled facility on SR 132. This project will create a four-lane expressway from Needham St to Dakota Ave.

Quarterly Mobility Statistics

The following figures show a summary of the performance across all state routes in the districts.

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<table><caption>Vehicle Miles of Travel (VMT) Data</caption><thead><tr><th>Quarter</th><th>VMT (Billions)</th></tr></thead><tbody><tr><td>2024 Q2</td><td>2.04</td></tr><tr><td>2025 Q1</td><td>1.92</td></tr><tr><td>2025 Q2</td><td>2.1</td></tr></tbody></table>	Quarter	VMT (Billions)	2024 Q2	2.04	2025 Q1	1.92	2025 Q2	2.1	Over one year ago	Over last quarter
		Quarter	VMT (Billions)								
		2024 Q2	2.04								
		2025 Q1	1.92								
2025 Q2	2.1										
2.9%	9%										
Total Vehicle Hours of Delay (VHD) at 35 mph	<table><caption>Total Vehicle Hours of Delay (VHD) at 35 mph Data</caption><thead><tr><th>Quarter</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2024 Q2</td><td>864.7</td></tr><tr><td>2025 Q1</td><td>699.5</td></tr><tr><td>2025 Q2</td><td>881.8</td></tr></tbody></table>	Quarter	VHD (Thousands)	2024 Q2	864.7	2025 Q1	699.5	2025 Q2	881.8	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2024 Q2	864.7								
		2025 Q1	699.5								
2025 Q2	881.8										
2%	26.1%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<table><caption>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph Data</caption><thead><tr><th>Quarter</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2024 Q2</td><td>12</td></tr><tr><td>2025 Q1</td><td>10</td></tr><tr><td>2025 Q2</td><td>12</td></tr></tbody></table>	Quarter	VHD (Thousands)	2024 Q2	12	2025 Q1	10	2025 Q2	12	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2024 Q2	12								
		2025 Q1	10								
2025 Q2	12										
2.3%	21.4%										
Total Vehicle Hours of Delay (VHD) at 60 mph	<table><caption>Total Vehicle Hours of Delay (VHD) at 60 mph Data</caption><thead><tr><th>Quarter</th><th>VHD (Millions)</th></tr></thead><tbody><tr><td>2024 Q2</td><td>2.5</td></tr><tr><td>2025 Q1</td><td>2.2</td></tr><tr><td>2025 Q2</td><td>2.6</td></tr></tbody></table>	Quarter	VHD (Millions)	2024 Q2	2.5	2025 Q1	2.2	2025 Q2	2.6	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
		2024 Q2	2.5								
		2025 Q1	2.2								
2025 Q2	2.6										
4.8%	18%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<table><caption>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph Data</caption><thead><tr><th>Quarter</th><th>VHD (Thousands)</th></tr></thead><tbody><tr><td>2024 Q2</td><td>34</td></tr><tr><td>2025 Q1</td><td>32</td></tr><tr><td>2025 Q2</td><td>36</td></tr></tbody></table>	Quarter	VHD (Thousands)	2024 Q2	34	2025 Q1	32	2025 Q2	36	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2024 Q2	34								
		2025 Q1	32								
2025 Q2	36										
4.6%	12.5%										

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph	Hours (Thousands) ■ 2024 Q2 ■ 2025 Q1 ■ 2025 Q2 Mon Tue Wed Thu Fri Sat Sun/Hol	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		–	Wednesday -3.1%
		Largest Magnitude Increase over one year ago Friday 7%	Largest Magnitude Increase over last quarter Thursday 26.5%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays	Hours (Thousands) — Weekday (2024 Q2) — Weekday (2025 Q1) — Weekday (2025 Q2) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Hour of Day	Largest Magnitude Weekday Decrease over one year ago	Largest Magnitude Weekday Decrease over last quarter
		6 AM -16.1%	4 AM -10.2%
		Largest Magnitude Weekday Increase over one year ago 5 PM 15.7%	Largest Magnitude Weekday Increase over last quarter 3 PM 34.2%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays	Hours (Thousands) — Saturday (2024 Q2) — Saturday (2025 Q1) — Saturday (2025 Q2) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Hour of Day	Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		12 PM -28.3%	6 PM -49.9%
		Largest Magnitude Saturday Increase over one year ago 8 PM 71.4%	Largest Magnitude Saturday Increase over last quarter 10 AM 163.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays	Hours (Thousands) — Sunday/Holiday (2024 Q2) — Sunday/Holiday (2025 Q1) — Sunday/Holiday (2025 Q2) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Hour of Day	Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		10 PM -48.3%	6 PM -37.7%
		Largest Magnitude Sun./Holiday Increase over one year ago 3 PM 43.8%	Largest Magnitude Sun./Holiday Increase over last quarter 12 PM 272.2%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph	Hours (Thousand) ■ 2024 Q2 ■ 2025 Q1 ■ 2025 Q2	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		SJ -10.3%	MER -8.8%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		STA 28.2%	SJ 22.4%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph	Miles ■ 2024 Q2 ■ 2025 Q1 ■ 2025 Q2 AM Peak (6 AM to 10 AM) Off-Peak Day (10 AM to 3 PM) PM Peak (3 PM to 7 PM) Off-Peak Night (7 PM to 6 AM)	Largest Magnitude Decrease over one year ago	Largest Magnitude Decrease over last quarter
		Off-Peak Night -16.6%	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 12.2%	Off-Peak Day 22.2%
Average Number of Good and Bad Detectors	Number of Detectors ■ Average of Good ■ Average of Bad 2024 Q2: 2,022 (Good), 609 (Bad) 2025 Q1: 1,990 (Good), 693 (Bad) 2025 Q2: 1,960 (Good), 737 (Bad)	Change in Good over one year ago	Change in Good over last quarter
		-3%	-1%
		Change in Bad over one year ago	Change in Bad over last quarter
		21%	6%

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2025 Q2-2024 Q2		Difference 2025 Q2-2025 Q1		Rank		
		2024 Q2	2025 Q1	2025 Q2	Absolute	Percentage	Absolute	Percentage	2024 Q2	2025 Q1	2025 Q2
I205	SJ	154540.3	169797.4	128119	-26421.3	-17%	(41,678)	-25%	1	1	2
I5	SJ	75736.9	140289.6	104583.7	28846.8	38%	(35,706)	-25%	4	3	4
SR4	SJ	63486.3	58239.9	35272.8	-28213.5	-44%	(22,967)	-39%	5	6	6
SR120	SJ	30062.1	63092.1	34453.9	4391.8	15%	(28,638)	-45%	6	5	7
I580	SJ	23506.8	28850.8	19405.5	-4101.3	-17%	(9,445)	-33%	8	8	8
SR132	STA	16542.2	26841.3	19172.2	2630	16%	(7,669)	-29%	9	9	9
I5	STA	10711.1	9966	10811.1	100	1%	845	8%	11	11	10
SR152	MER	6740	9455.9	9306.5	2566.5	38%	(149)	-2%	13	12	11
SR12	SJ	13037.5	10657.9	9240.3	-3797.2	-29%	(1,418)	-13%	10	10	12
I5	MER	301.2	2720.4	6459.9	6158.7	2045%	3,740	137%	19	15	13
SR219	STA	2410.8	2953	2635.7	224.9	9%	(317)	-11%	15	14	14
SR132	SJ	3230.3	3352.3	2382.2	-848.1	-26%	(970)	-29%	14	13	15
SR140	MPA	0	1378.6	1985.7	1985.7		607	44%		17	16
SR49	TUO	0.5	1465.6	1261.6	1261.1	252220%	(204)	-14%	27	16	17
SR49	MPA	148.7	394.7	688.6	539.9	363%	294	74%	21	21	18
SR165	MER	758.5	1378.6	561.4	-197.1	-26%	(817)	-59%	17	18	19
SR120	TUO	278.2	558.5	363.9	85.7	31%	(195)	-35%	20	20	20
SR108	TUO	1105.1	1011.7	318.8	-786.3	-71%	(693)	-68%	16	19	21
SR88	AMA	504.3	9.4	292.8	-211.5	-42%	283	3015%	18	27	22
SR88	ALP	19.3	21.4	18.5	-0.8	-4%	(3)	-14%	23	25	23
SR4	STA	0.5	2.4	11.7	11.2	2240%	9	388%	27	29	24
SR12	CAL	11.4	33.3	5.6	-5.8	-51%	(28)	-83%	24	24	25
SR16	AMA	0.1	184.4	5.3	5.2	5200%	(179)	-97%	31	22	26
SR104	AMA	11.4	7.9	4.6	-6.8	-60%	(3)	-42%	24	28	27
SR124	AMA	42.7	2.1	1.5	-41.2	-96%	(1)	-29%	22	30	29
SR140	MER	0.3	40.8	0.1	-0.2	-67%	(41)	-100%	30	23	30
SR4	CAL	6826.4	0	0	-6826.4	-100%	-		12		