

District 10 Mobility Performance Report

2024 Second Quarter

DEPARTMENT OF TRANSPORTATION

July 31, 2024
: Serafin Herrera

District 10 Mobility Performance Report

2024 Second Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 10 contains eight counties located within the Central Valley (Merced / San Joaquin / Stanislaus) and the Sierra Nevada (Alpine / Amador / Calaveras / Mariposa / Tuolumne). Over the years detection in Alpine and Calaveras Counties has been sparse, so the District 10 Mobility Performance Report (MPR) was not including these two counties in the quarterly report. However, Alpine and Calaveras Counties were added back into the MPR beginning 2023 since detection has improved and been implemented more in rural areas.

The MPR quarterly analysis compares information in the current quarter to that of the previous quarter and the quarter one year prior. The following are the performance measures reported in the MPR:

- Vehicle Miles Traveled (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Detector Health (DH)

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 second quarter of 2024, total delay equaled 865 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.5 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 20.7 percent total delay increase in 35 mph quarterly delay and 12.4 percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 12,264 VHD at 35 mph and 34,285 VHD at 60 mph. Compared to the same quarter the year before, there was a 23.8 percent increase in 35 mph average weekday quarterly delay and 14.4 percent increase in 60 mph average weekday quarterly delay. The increases in delay numbers at 35 mph and at 60 mph can be attributed to the fact that good detection has increased, and additional detection has been implemented in the past year. Additionally, significant commercial, industrial, and residential growth has occurred since early 2022 in the post-Covid era. It is anticipated that the 2024 delay numbers for 35 mph and 60 mph will stabilize going into the latter part of the year.

Top Ten Bottlenecks for Quarter 1

	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SJ	AM	I205-W	1.69	0.761	37.74	-121.54	62	3.26	138,590	14,645
STA	PM	SR99-S	227.83	R16.799	37.65	-121.02	61	1.77	27,629	9,540
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	59	2.36	27,188	7,705
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	50	2.48	23,439	5,670
SJ	PM	I205-E	12.87	R11.94	37.77	-121.34	50	1.80	15,986	6,110
SJ	PM	I205-W	11.41	R10.48	37.77	-121.37	51	1.30	8,413	4,675
SJ	PM	SR120-E	0.42	R0.914	37.79	-121.30	62	1.10	7,987	9,645
SJ	PM	I5-N	468.70	R23.21	37.91	-121.29	46	1.94	6,863	2,665
STA	PM	SR99-N	226.51	R15.454	37.63	-121.00	61	0.40	6,613	9,620
SJ	PM	I5-N	458.99	R13.5	37.78	-121.32	53	0.45	5,873	7,030

SUMMARY TABLE FOR THE 2024 Q2 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective August 2024. These current and future (planned) projects will further relieve congestion in District 10:

MER 152 – LOS BANOS BYPASS SEGMENT I; EA 10-41911

Convert 4 lane expressway to 6 lane freeway

Approve Construction Contract Date – 05/15/2018

On Hold (No Updates) – 07/07/2023

STA 132 – SR 132 EXPRESSWAY PHASE 2; 10-40352

State Route 132 West Freeway/Expressway Phase 2. Phase 2 will add 2 lanes to the existing 2-lane, access controlled facility to create a four-lane expressway.

Currently in PS&E

Project Completion – Estimated to be late 2031

SAN JOAQUIN COUNTY

SJ 4 RAMP METERING IMPROVEMENTS; EA 10-1F180

Install ramp meters along SR 4 between the I-5 and SR 99 Connectors

Currently in RTL

Project Completion – Estimated to be mid 2024

SJ 120 RAMP METERING IMPROVEMENTS; EA 10-1F040

Install ramp meters along SR 4 between the I-5 and SR 99 Connectors

Currently waiting to be programmed

Project Completion – Estimated to be 2030

I-205 SMART CORRIDOR PHASE 2; EA 10-1C330

Install ramp meters and ITS elements along I205 from MacArthur to Grant Line Road

Currently RTL was Achieved in June 2021

Project Completion – Estimated to be 2025

I-205 – MOUNTAIN HOUSE PARKWAY INTERCHANGE PROJECT; EA 10-1E210

Improve the I-205 – Mountain House Parkway Interchange to accommodate planned future growth in and around the City of Tracy

Currently in PS&E

Project Completion – Estimated to be 2030

I-205 – LAMMERS ROAD / 11TH STREET INTERCHANGE PROJECT; EA 10-0H910

Construct the I-205 – Lammers Road / 11th Street Interchange to accommodate planned future growth in and around the City of Tracy

Currently in PS&E

Project Completion – Estimated to be 2032

I-205 – CHRISMAN ROAD INTERCHANGE PROJECT; EA 10-0H880

Construct the I-205 – Chrisman Road Interchange to accommodate planned future growth in and around the eastern commercial zone of the City of Tracy.

Currently in PA&ED

Project Completion – Estimated to be 2034

I-580 – PATTERSON PASS ROAD INTERCHANGE PROJECT; EA 10-1E220

Improve the I-205 – Patterson Pass Road Interchange to accommodate planned future growth in and around the City of Tracy

Currently in PS&E

Project Completion – Estimated to be 2029

The above capacity increasing, ramp metering, interchange improvement, and interchange construction projects are located on the routes, in the cities, and in the counties that experience the most congestion in District 10. It is expected that the projects will help reduce congestion and delay as the population and demand in District 10 grows over the next 10 years.

The next section of this report summarizes the District 10 2023 Q4 Quarterly Mobility Statistics.

2024 Q2 Quarterly Mobility Statistics District 10

Data may change in coming months due to on-going reconciliation process

Measure	Graph	Percentage Change									
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table><tr><th>Period</th><th>VMT (Billions)</th></tr><tr><td>2023 Q2</td><td>2.03</td></tr><tr><td>2024 Q1</td><td>1.9</td></tr><tr><td>2024 Q2</td><td>2.04</td></tr></table>	Period	VMT (Billions)	2023 Q2	2.03	2024 Q1	1.9	2024 Q2	2.04	Over one year ago	Over last quarter
		Period	VMT (Billions)								
		2023 Q2	2.03								
		2024 Q1	1.9								
2024 Q2	2.04										
0.3%	7.4%										
↑	↑										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table><tr><th>Period</th><th>VHD (Thousands)</th></tr><tr><td>2023 Q2</td><td>716.4</td></tr><tr><td>2024 Q1</td><td>700.6</td></tr><tr><td>2024 Q2</td><td>864.7</td></tr></table>	Period	VHD (Thousands)	2023 Q2	716.4	2024 Q1	700.6	2024 Q2	864.7	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
		2023 Q2	716.4								
		2024 Q1	700.6								
2024 Q2	864.7										
20.7%	23.4%										
↑	↑										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table><tr><th>Period</th><th>VHD (Thousands)</th></tr><tr><td>2023 Q2</td><td>10</td></tr><tr><td>2024 Q1</td><td>10</td></tr><tr><td>2024 Q2</td><td>12</td></tr></table>	Period	VHD (Thousands)	2023 Q2	10	2024 Q1	10	2024 Q2	12	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
		2023 Q2	10								
		2024 Q1	10								
2024 Q2	12										
23.8%	25.6%										
↑	↑										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table><tr><th>Period</th><th>VHD (Millions)</th></tr><tr><td>2023 Q2</td><td>2.2</td></tr><tr><td>2024 Q1</td><td>2.1</td></tr><tr><td>2024 Q2</td><td>2.5</td></tr></table>	Period	VHD (Millions)	2023 Q2	2.2	2024 Q1	2.1	2024 Q2	2.5	Over one year ago	Over last quarter
		Period	VHD (Millions)								
		2023 Q2	2.2								
		2024 Q1	2.1								
2024 Q2	2.5										
12.4%	18%										
↑	↑										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table><tr><th>Period</th><th>VHD (Thousands)</th></tr><tr><td>2023 Q2</td><td>30</td></tr><tr><td>2024 Q1</td><td>29</td></tr><tr><td>2024 Q2</td><td>34</td></tr></table>	Period	VHD (Thousands)	2023 Q2	30	2024 Q1	29	2024 Q2	34	Over one year ago	Over last quarter
		Period	VHD (Thousands)								
		2023 Q2	30								
		2024 Q1	29								
2024 Q2	34										
14.4%	18.3%										
↑	↑										

For further information regarding the content of this report, contact:
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2024 Q2 Quarterly Mobility Statistics District 10

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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 -17.3%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Monday 22.1%	Friday 33.2%
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
		4 AM -6%	6 PM -18.9%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		7 AM 31.5%	3 PM 67.8%
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
		5 PM -47.8%	5 PM -42.5%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		5 AM 261.5%	12 PM 183.9%
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 -21.9%	7 PM -75.4%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		10 PM 294.6%	1 PM 156.2%

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2024 Q2 Quarterly Mobility Statistics District 10

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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
		STA -19.9%	CAL -98.9%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		SJ 39.5%	SJ 29.1%
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
		—	—
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		AM Peak 64.8%	PM Peak 10.7%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		6%	1%
		Change in Bad over one year ago	Change in Bad over last quarter
		-11%	-2%

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**2024 Q2 Quarterly Mobility Statistics
District 10**

Data may change in coming months due to on-going reconciliation process

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2024 Q2-2023 Q2		Difference 2024 Q2-2024 Q1		Rank		
		2023 Q2	2024 Q1	2024 Q2	Absolute	Percentage	Absolute	Percentage	2023 Q2	2024 Q1	2024 Q2
I205	SJ	216,376	154,540	199,046	-17,330	-8.0%	44,506	28.8%	1	1	1
I5	SJ	86,377	75,737	182,834	96,457	111.7%	107,097	141.4%	3	4	2
SR99	STA	161,278	120,311	137,404	-23,875	-14.8%	17,093	14.2%	2	3	3
SR99	SJ	78,560	147,993	129,452	50,893	64.8%	-18,541	-12.5%	4	2	4
I580	SJ	25,667	23,507	61,628	35,961	140.1%	38,121	162.2%	7	8	5
SR4	SJ	35,888	63,486	46,324	10,436	29.1%	-17,163	-27.0%	6	5	6
SR120	SJ	19,757	30,062	31,085	11,329	57.3%	1,023	3.4%	8	6	7
SR99	MER	11,772	28,185	23,609	11,838	100.6%	-4,576	-16.2%	10	7	8
SR132	STA	36,427	16,542	23,157	-13,270	-36.4%	6,615	40.0%	5	9	9
I5	STA	17,900	10,711	12,724	-5,176	-28.9%	2,012	18.8%	9	11	10
SR152	MER	7,636	6,740	8,101	465	6.1%	1,361	20.2%	11	13	11
SR12	SJ	5,185	13,038	6,808	1,623	31.3%	-6,230	-47.8%	13	10	12
SR132	SJ	5,451	3,230	3,344	-2,107	-38.7%	114	3.5%	12	14	13
SR165	MER	4,352	759	2,014	-2,338	-53.7%	1,256	165.6%	14	17	14
SR108	TUO	4,151	1,105	1,196	-2,955	-71.2%	90	8.2%	15	16	16
I5	MER	705	301	504	-201	-28.5%	203	67.4%	17	19	17
SR120	TUO	395	278	438	44	11.1%	160	57.5%	19	20	18
SR16	AMA	36	0	392	355	978.5%	391	391400.0%	22	31	19
SR49	MPA	520	149	349	-171	-32.8%	201	134.8%	18	21	20
SR4	STA	111	1	85	-26	-23.2%	84	16880.0%	20	27	21
SR12	CAL	2	11	75	73	3318.2%	64	559.6%	28	24	22
SR49	TUO	0	1	51	51		50	10020.0%		27	23
SR88	AMA	1	504	30	29	4850.0%	-475	-94.1%	30	18	24
SR88	ALP	29	19	20	-9	-32.0%	1	2.6%	23	23	25
SR104	AMA	14	11	14	1	3.6%	3	25.4%	25	24	26
SR88	SJ	6	3	9	3	55.4%	6	171.9%	26	26	27
SR124	AMA	2	43	2	0	4.3%	-40	-94.4%	27	22	29
SR140	MER	57	0	1	-57	-99.1%	0	66.7%	21	30	30
SR140	MPA	2	0	0	-2	-100.0%	0		29		
SR4	CAL	0	6,826	0	0		-6,826	-100.0%		12	
TOTALS		721,661	706,506	872,451	150,790	20.9%	165,945	23.5%			

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