

District 10 Mobility Performance Report

2024 First Quarter

DEPARTMENT OF TRANSPORTATION

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: Serafin Herrera

District 10 Mobility Performance Report

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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 first quarter of 2024, total delay equaled 700 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.1 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 37.4 percent total delay increase in 35 mph quarterly delay and 17.6 percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 9,765 VHD at 35 mph and 28,982 VHD at 60 mph. Compared to the same quarter the year before, there was a 31.3 percent increase in 35 mph average weekday quarterly delay and 14.2 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

County	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	59	3.11	114,598	12,540
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	58	2.31	27,636	7,770
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	45	2.10	18,531	5,370
STA	PM	SR99-S	227.83	R16.799	37.65	-121.02	47	1.55	11,698	4,660
STA	PM	SR99-S	227.11	R16.07	37.64	-121.01	57	0.99	10,011	7,385
SJ	AM	SR99-N	225.77	R14.71	37.62	-121.00	53	1.28	6,856	3,705
STA	PM	SR99-N	226.51	R15.454	37.63	-121.00	56	0.40	5,212	7,770
SJ	PM	SR120-E	0.42	R0.914	37.79	-121.30	57	1.10	4,460	5,405
SJ	PM	SR99-S	236.55	0.768	37.74	-121.12	53	1.81	3,419	7,315
SJ	PM	I5-S	459.52	R14.023	37.78	-121.31	54	0.40	3,395	6,000

SUMMARY TABLE FOR THE 2024 Q1 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective March 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

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 late 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 2024 Q1 Quarterly Mobility Statistics.

2024 Q1 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 style="font-size: small;">Miles (Billions)</p>	Over one year ago	Over last quarter
		4.5%	-4%
		↑	↓
Total Vehicle Hours of Delay (VHD) at 35 mph	<p style="font-size: small;">Hours (Thousands)</p>	Over one year ago	Over last quarter
		37.4%	10.5%
		↑	↑
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p style="font-size: small;">Hours</p>	Over one year ago	Over last quarter
		31.3%	9.5%
		↑	↑
Total Vehicle Hours of Delay (VHD) at 60 mph	<p style="font-size: small;">Hours (Millions)</p>	Over one year ago	Over last quarter
		17.6%	1.5%
		↑	↑
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p style="font-size: small;">Hours (Thousands)</p>	Over one year ago	Over last quarter
		14.2%	1.4%
		↑	↑

For further information regarding the content of this report, contact:
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2024 Q1 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	<p>Hours (Thousands)</p>	<p>Largest Magnitude Decrease over one year ago</p> <p>Friday -5.6% </p> <p>Largest Magnitude Increase over one year ago</p> <p>Monday 26% </p>	<p>Largest Magnitude Decrease over last quarter</p> <p>Friday -9.3% </p> <p>Largest Magnitude Increase over last quarter</p> <p>Monday 29.2% </p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays	<p>Hours (Thousands)</p>	<p>Largest Magnitude Weekday Decrease over one year ago</p> <p>5 AM -22.2% </p> <p>Largest Magnitude Weekday Increase over one year ago</p> <p>5 PM 62.8% </p>	<p>Largest Magnitude Weekday Decrease over last quarter</p> <p>4 PM -15.3% </p> <p>Largest Magnitude Weekday Increase over last quarter</p> <p>8 AM 50.7% </p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays	<p>Hours (Thousands)</p>	<p>Largest Magnitude Saturday Decrease over one year ago</p> <p>2 PM -59.3% </p> <p>Largest Magnitude Saturday Increase over one year ago</p> <p>6 PM 178.3% </p>	<p>Largest Magnitude Saturday Decrease over last quarter</p> <p>2 PM -58.6% </p> <p>Largest Magnitude Saturday Increase over last quarter</p> <p>8 PM 96.7% </p>
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays	<p>Hours (Thousands)</p>	<p>Largest Magnitude Sun./Holiday Decrease over one year ago</p> <p>11 AM -21.3% </p> <p>Largest Magnitude Sun./Holiday Increase over one year ago</p> <p>6 PM 318.4% </p>	<p>Largest Magnitude Sun./Holiday Decrease over last quarter</p> <p>2 PM -34.4% </p> <p>Largest Magnitude Sun./Holiday Increase over last quarter</p> <p>7 PM 179.6% </p>

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2024 Q1 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
		TUO -55.9%	MER -12.6%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		SJ 38%	SJ 11.2%
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
		PM Peak 50.3%	AM Peak 80%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		6%	3%
		Change in Bad over one year ago	Change in Bad over last quarter
		-10%	-8%

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**2024 Q1 Quarterly Mobility Statistics
District 10**

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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
I205	SJ	157,394	143,386	154,540	-2,853	-1.8%	11,155	7.8%	1	1	1
SR99	SJ	81,442	120,720	147,993	66,551	81.7%	27,273	22.6%	3	2	2
SR99	STA	87,003	99,127	120,311	33,308	38.3%	21,183	21.4%	2	4	3
I5	SJ	65,688	110,057	75,737	10,049	15.3%	-34,320	-31.2%	4	3	4
SR4	SJ	8,994	35,911	63,486	54,492	605.9%	27,575	76.8%	9	5	5
SR120	SJ	23,075	23,868	30,062	6,987	30.3%	6,195	26.0%	6	8	6
SR99	MER	6,208	29,506	28,185	21,977	354.0%	-1,321	-4.5%	11	6	7
I580	SJ	25,830	12,671	23,507	-2,323	-9.0%	10,836	85.5%	5	9	8
SR132	STA	20,220	27,766	16,542	-3,678	-18.2%	-11,224	-40.4%	7	7	9
SR12	SJ	3,696	4,506	13,038	9,342	252.8%	8,532	189.4%	13	13	10
I5	STA	15,777	4,972	10,711	-5,066	-32.1%	5,739	115.4%	8	12	11
SR4	CAL	0	1,497	6,826	6,826		5,329	355.9%		17	12
SR152	MER	6,636	6,355	6,740	104	1.6%	385	6.1%	10	11	13
SR132	SJ	6,028	7,893	3,230	-2,798	-46.4%	-4,663	-59.1%	12	10	14
SR108	TUO	2,645	689	1,105	-1,540	-58.2%	416	60.4%	14	18	16
SR165	MER	1,111	2,179	759	-352	-31.7%	-1,421	-65.2%	16	16	17
SR88	AMA	211	0	504	293	138.9%	504		20		18
I5	MER	414	3,139	301	-113	-27.2%	-2,837	-90.4%	18	14	19
SR120	TUO	496	363	278	-218	-43.9%	-85	-23.4%	17	20	20
SR49	MPA	56	534	149	93	164.6%	-385	-72.1%	22	19	21
SR124	AMA	1	9	43	41	2950.0%	34	364.1%	25	26	22
SR88	ALP	29	27	19	-10	-34.4%	-8	-29.6%	23	24	23
SR104	AMA	8	10	11	4	52.0%	2	16.3%	24	25	24
SR12	CAL	0	33	11	11	11300.0%	-21	-65.1%	29	23	24
SR88	SJ	1	6	3	3	540.0%	-2	-41.8%	26	27	26
SR4	STA	0	176	1	0	150.0%	-176	-99.7%	27	21	27
SR49	TUO	0	0	1	0	400.0%	0	400.0%	29	30	27
SR140	MER	87	2	0	-87	-99.7%	-1	-81.3%	21	28	30
SR16	AMA	374	141	0	-373	-100.0%	-140	-99.9%	19	22	31
SR140	MPA	0	0	0	0		0				
TOTALS		515,613	637,999	706,506	190,893	37.0%	68,507	10.7%			

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