District 10 Mobility Performance Report

2023 First Quarter

DEPARTMENT OF TRANSPORTATION

July 7, 2023 : Jaime Q. Quesada

District 10 Mobility Performance Report

2023 First Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 10 contains eight counties located within the Central Valley (San Joaquin / Stanislaus / Merced) and the Sierra Nevada (Amador / Calaveras / Tuolumne / Mariposa / Alpine). 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 have been added back into the MPR as detection has improved and been implemented more in rural area.

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 2023, total delay equaled 510 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 1.8 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 3.4 percent total delay increase in 35 mph quarterly delay and 0.9 percent total delay decrease in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 7,436 VHD at 35 mph and 25,379 VHD at 60 mph. Compared to the same quarter the year before, there was a 2.9 percent increase in 35 mph average weekday quarterly delay and 1.0 percent decrease in 60 mph average weekday quarterly delay. The slight increases in delay numbers at 35 mph and slight decreases in delay numbers at 60 mph can mainly be attributed to the fact that traffic patterns from the first quarter of 2022 have stabilized in the past 12 months. It is expected that the second quarter of 2023 will continue the same trend with slight increases or decreases in delay.

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	61	2.30	98,193	13,685
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	53	2.35	27,551	7,770
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	43	2.69	26,468	5,960
SJ	AM	1580-W	15.30	14.7	37.73	-121.55	36	4.71	19,174	4,025
SJ	PM	SR120-E	0.42	R0.914	37.79	-121.30	61	1.26	9,781	9,005
STA	PM	SR99-S	227.83	R16.799	37.65	-121.02	46	1.09	9,297	5,650
SJ	PM	I205-E	12.87	R11.94	37.77	-121.34	35	1.80	8,742	3,160
SJ	AM	I205-W	6.18	R5.248	37.75	-121.46	23	1.68	7,389	2,450
SJ	PM	I205-E	10.22	R9.29	37.76	-121.39	31	1.80	6,746	2,265
SJ	PM	15-N	468.70	R23.21	37.91	-121.29	37	2.06	6,296	2,310

SUMMARY TABLE FOR THE 2023 Q1 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective July 2023. These current and future (planned) projects will further relieve congestion in District 10:

MERCED COUNTY

MER 99 NB LIVINGSTON MEDIAN WIDENING; EA 10-0Q121

Lane widening from 2 to 3 lanes Approve Construction Contract Date – 08/01/2021 Projected End Project – 10/02/2023

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 End Project – 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 End Project – 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 End Project – 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

End Project – Estimated to be 2028

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

End Project – Estimated to be 2028

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

End Project – Estimated to be 2028

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

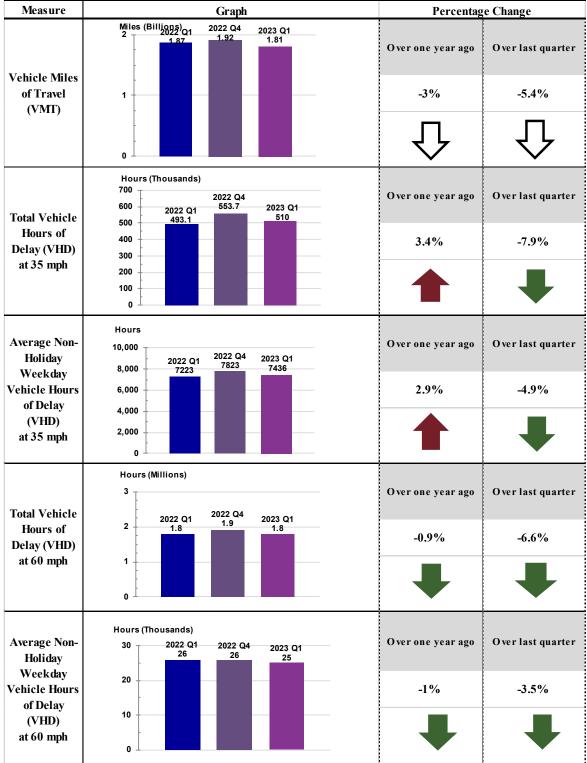
End Project – Estimated to be 2028

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 Q1 Quarterly Mobility Statistics.

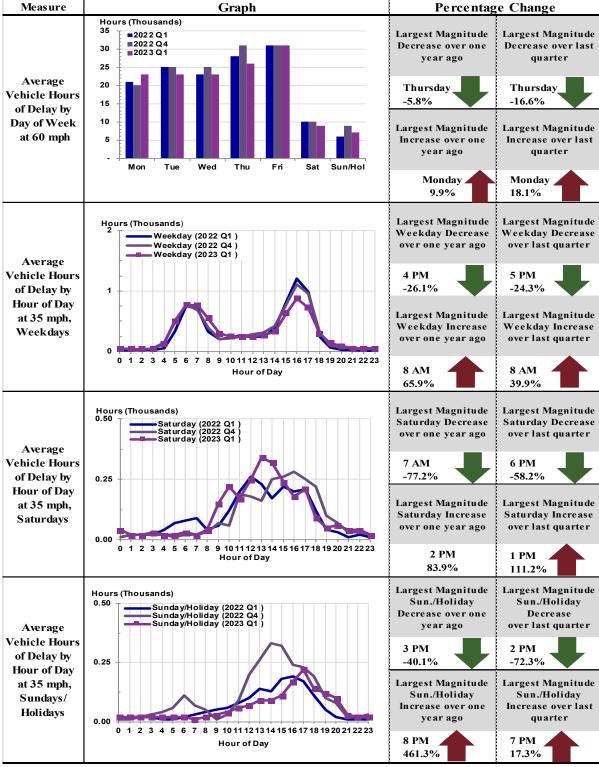
2023 Q1 Quarterly Mobility Statistics District 10

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



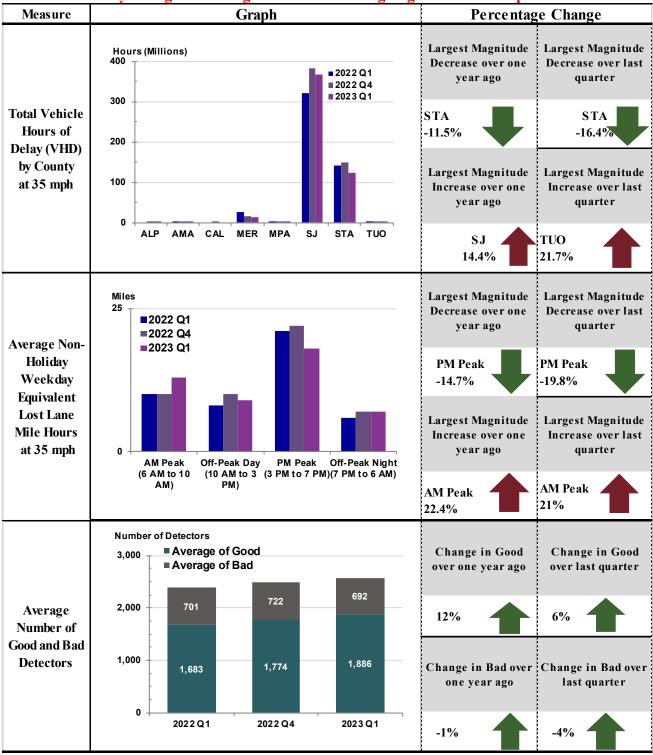
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Congestion by Route												
		Vehicle Hours of Delay at 35 mph				rence 1-2022 Q1	Difference 2023 Q1-2022 Q4			Rank		
Route	County	2022 Q1	2022 Q4	2023 Q1	Absolute	Percentage	Absolute	Percentage	2022 Q1	2022 Q4	2023 Q1	
I205	SJ	226,539	138,131	157,394	-69,145	-30.5%	19,263	13.9%	1	1	1	
SR99	STA	100,972	109,214	87,003	-13,969	-13.8%	-22,212	-20.3%	2	3	2	
SR99	SJ	72,124	113,248	81,442	9,318	12.9%	-31,806	-28.1%	3	2	3	
I5	SJ	50,135	76,792	65,688	15,553	31.0%	-11,104	-14.5%	4	4	4	
I580	STA	0	0	25,012	25,012		25,012				5	
SR120	SJ	26,605	32,722	23,075	-3,530	-13.3%	-9,648	-29.5%	7	5	6	
SR132	STA	33,782	22,851	20,220	-13,563	-40.1%	-2,631	-11.5%	5	6	7	
15	STA	4,787	15,827	15,777	10,989	229.5%	-50	-0.3%	11	7	8	
SR4	SJ	27,266	4,079	8,994	-18,272	-67.0%	4,915	120.5%	6	12	9	
SR152	MER	8,954	9,562	6,636	-2,318	-25.9%	-2,926	-30.6%	10	9	10	
SR99	MER	15,432	5,418	6,208	-9,224	-59.8%	790	14.6%	8	11	11	
SR132	SJ	3,146	3,512	6,028	2,882	91.6%	2,516	71.7%	13	13	12	
SR12	SJ	3,686	5,516	3,696	10	0.3%	-1,820	-33.0%	12	10	13	
SR108	TUO	2,754	2,165	2,645	-108	-3.9%	481	22.2%	14	14	14	
SR219	TUO	0	0	2,182	2,182		2,182				15	
I580	SJ	11,497	10,712	818	-10,679	-92.9%	-9,894	-92.4%	9	8	17	
SR120	TUO	504	327	496	-8	-1.6%	169	51.8%	18	19	18	
I5	MER	163	1,670	414	251	154.2%	-1,256	-75.2%	20	16	19	
SR16	AMA	838	1,421	374	-464	-55.4%	-1,047	-73.7%	17	17	20	
SR140	MER	0	1	87	87		86	17280.0%		29	22	
SR49	MPA	71	105	56	-15	-20.8%	-49	-46.3%	22	20	23	
SR88	ALP	1	43	29	29	4100.0%	-14	-31.5%	24	22	24	
SR219	STA	1,914	1,791	8	-1,906	-99.6%	-1,783	-99.5%	16	15	25	
SR104	AMA	0	19	8	8		-12	-61.3%		23	26	
SR124	AMA	0	3	1	1		-1	-50.0%		27	27	
SR88	SJ	140	3	1	-139	-99.6%	-2	-81.5%	21	28	28	
SR4	STA	0	0	0	0		0				29	
SR89	ALP	0	3	0	0		-3	-93.1%		26	29	
SR12	CAL	0	11	0	0	-66.7%	-11	-99.1%	25	24	31	
SR49	TUO	9	89	0	-9	-98.8%	-89	-99.9%	23	21	31	
SR140	MPA	0	0	0	0		0					
SR4	CAL	0	0	0	0		0					
TOTALS		593,962	556,290	515,613	-78,349	-13.2%	-40,677	-7.3%				