District 10 Mobility Performance Report

2023 Second Quarter

DEPARTMENT OF TRANSPORTATION

July 31, 2023 : Jaime Q. Quesada

District 10 Mobility Performance Report

2023 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 2023, total delay equaled 716 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.2 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 23.2 percent total delay increase in 35 mph quarterly delay and 9.1 percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 9,908 VHD at 35 mph and 29,961 VHD at 60 mph. Compared to the same quarter the year before, there was a 17.3 percent increase in 35 mph average weekday quarterly delay and 6.8 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, bad detection has decreased, and additional detection has been implemented in the past years. Additionally, significant commercial, industrial, and residential growth as occurred since early 2022 in the post-Covid era. It is anticipated that the 2023 delay numbers for 35 mph and 60 mph will stabilize during the second half of the year.

Top Ten Bottlenecks for Quarter 2

10p 10h Bottleheeks 101 Quarter 2											
County	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)	
SJ	AM	1205-W	1.69	0.761	37.74	-121.54	63	3.02	132,377	14,275	
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	60	2.39	27,998	8,050	
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	56	2.53	22,600	5,765	
STA	PM	SR99-S	227.11	R16.07	37.64	-121.01	59	1.61	18,432	7,970	
SJ	PM	1205-E	12.87	R11.94	37.77	-121.34	48	1.80	11,071	4,410	
SJ	PM	15-S	470.73	25.241	37.93	-121.30	24	1.60	10,390	2,610	
STA	PM	SR99-N	231.52	R20.459	37.69	-121.06	30	1.62	10,017	2,435	
STA	PM	SR99-S	228.80	R17.767	37.66	-121.03	43	1.39	9,495	3,865	
SJ	PM	15-N	461.20	R15.706	37.80	-121.30	46	1.51	7,451	4,060	
SJ	PM	I205-E	9.13	R8.202	37.76	-121.41	49	1.01	7,346	4,255	

SUMMARY TABLE FOR THE 2023 Q2 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

Project Completion – Estimated to be November 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

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 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

Project Completion – 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

Project Completion – 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

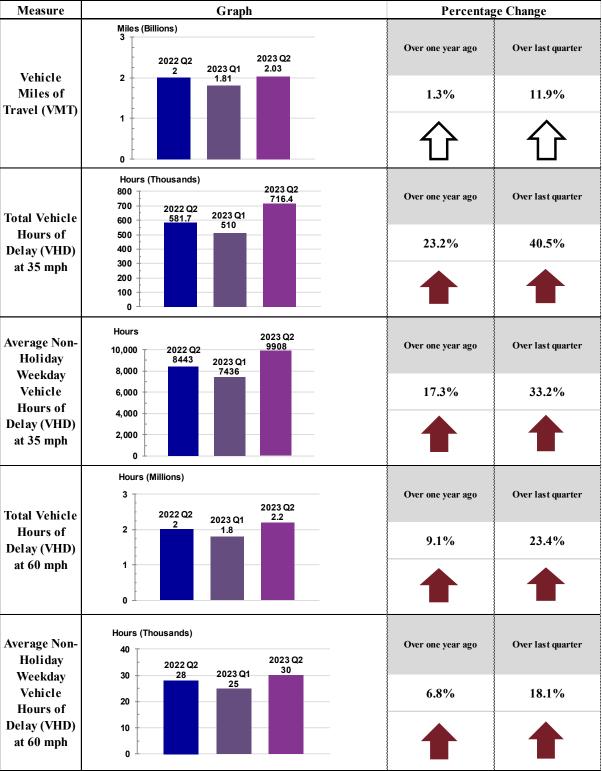
Project Completion – Estimated to be 2028

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 Q2 Quarterly Mobility Statistics.

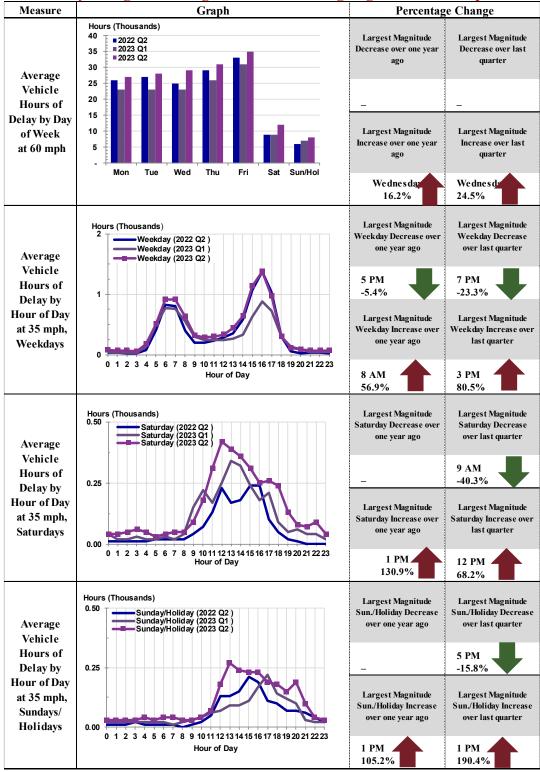
2023 Q2 Quarterly Mobility Statistics District 10

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



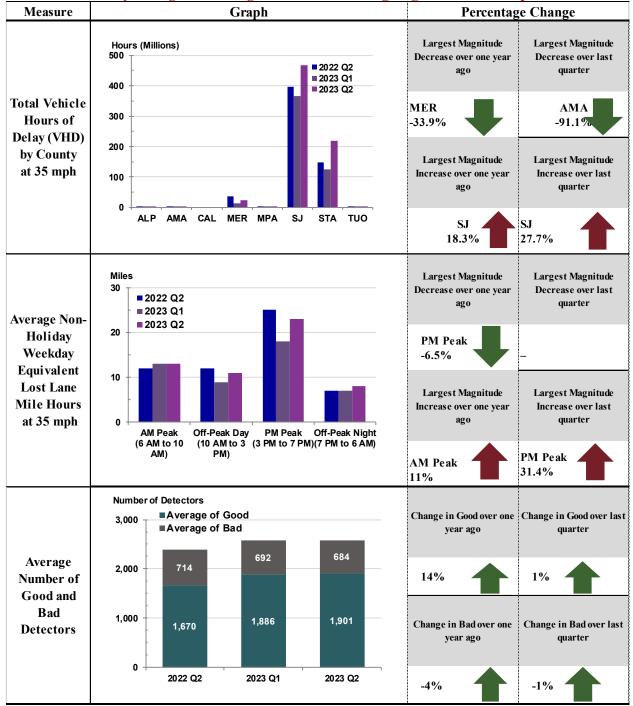
2023 Q2 Quarterly Mobility Statistics District 10

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



2023 Q2 Quarterly Mobility Statistics District 10

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



District 10 Mobility Performance Report | 7/31/2023

2023 Q2 Quarterly Mobility Statistics District 10

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

Congestion by Route												
		Vehicle Hours of Delay at 35 mph				rence 2-2022 Q2	Difference 2023 Q2-2023 Q1		Rank			
Route	County	2022 Q2	2023 Q1	2023 Q2	Absolute	Percentage	Absolute	Percentage	2022 Q2	2023 Q1	2023 Q2	
1205	SJ	235,466	157,394	216,376	-19,089	-8.1%	58,983	37.5%	1	1	1	
SR99	STA	103,676	87,003	161,278	57,602	55.6%	74,276	85.4%	2	2	2	
I5	SJ	43,684	65,688	86,377	42,693	97.7%	20,689	31.5%	4	4	3	
SR99	SJ	101,048	81,442	78,560	-22,489	-22.3%	-2,883	-3.5%	3	3	4	
SR132	STA	33,364	20,220	36,427	3,064	9.2%	16,207	80.2%	6	7	5	
SR4	SJ	33,469	8,994	35,888	2,419	7.2%	26,894	299.0%	5	9	6	
I580	SJ	13,714	25,830	25,667	11,952	87.2%	-164	-0.6%	10	5	7	
SR120	SJ	27,846	23,075	19,757	-8,089	-29.0%	-3,318	-14.4%	7	6	8	
I5	STA	8,726	15,777	17,900	9,174	105.1%	2,123	13.5%	11	8	9	
SR99	MER	20,204	6,208	11,772	-8,433	-41.7%	5,564	89.6%	8	11	10	
SR152	MER	14,975	6,636	7,636	-7,339	-49.0%	1,000	15.1%	9	10	11	
SR132	SJ	5,077	6,028	5,451	374	7.4%	-577	-9.6%	13	12	12	
SR12	SJ	5,830	3,696	5,185	-645	-11.1%	1,489	40.3%	12	13	13	
SR165	MER	1,304	1,111	4,352	3,048	233.9%	3,241	291.8%	15	16	14	
SR108	TUO	212	2,645	4,151	3,939	1862.6%	1,505	56.9%	19	14	15	
15	MER	637	414	705	68	10.7%	291	70.4%	17	18	17	
SR49	MPA	110	56	520	410	373.5%	464	825.1%	20	22	18	
SR120	TUO	1,157	496	395	-763	-65.9%	-101	-20.4%	16	17	19	
SR4	STA	0	0	111	111		110	55150.0%		27	20	
SR140	MER	0	87	57	57		-30	-33.9%		21	21	
SR16	AMA	390	374	36	-354	-90.7%	-337	-90.3%	18	19	22	
SR88	ALP	12	29	29	17	134.7%	0	-1.0%	23	23	23	
SR104	AMA	0	8	14	14		6	84.0%		24	25	
SR88	SJ	34	1	6	-29	-83.7%	5	1020.0%	22	26	26	
SR124	AMA	6	1	2	-4	-62.3%	1	64.3%	25	25	27	
SR12	CAL	1	0	2	2	214.3%	2	2100.0%	27	29	28	
SR140	MPA	0	0	2	2		2				29	
SR88	AMA	65	211	1	-64	-99.1%	-211	-99.7%	21	20	30	
SR4	CAL	0	0	0	0		0					
SR49	TUO	1	0	0	-1	-100.0%	0	-100.0%	26	29		
TOTALS		652,381	515,613	721,661	69,279	10.6%	206,048	40.0%				