District 10 Mobility Performance Report

2022 Third Quarter

DEPARTMENT OF TRANSPORTATION

October 31, 2022

: Jaime Q. Quesada

District 10 Mobility Performance Report

2022 Third 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) no longer includes these two counties in the quarterly report.

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 third quarter, total delay equaled 561 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2.0 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 0.2 percent total delay increase in 35 mph quarterly delay and 3.6 percent

total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 7,977 VHD at 35 mph and 28,214 VHD at 60 mph. Compared to the same quarter the year before, there was a 4.5% percent increase in 35 mph average weekday quarterly delay and 6.5 percent increase in 60 mph average weekday quarterly delay. The small overall change in delay numbers at 35 mph and 60 mph can mainly be attributed to the fact that the COVID-19 traffic patterns are balancing out in the past year. It is expected that the fourth quarter of 2022 will continue the same trend of small overall change in delay numbers because traffic flows are balancing out throughout post COVID-19 District 10.

Top Ten Bottlenecks for Quarter 3

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	2.88	99,292	12,205
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	61	2.76	41,926	9,495
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	56	2.40	36,548	9,820
STA	PM	SR99-S	227.83	R16.799	37.65	-121.02	50	2.03	20,619	6,335
SJ	PM	SR120-E	0.42	R0.914	37.79	-121.30	61	1.29	13,995	11,565
SJ	PM	I205-E	12.87	R11.94	37.77	-121.34	40	1.80	10,497	4,115
SJ	PM	I205-E	10.22	R9.29	37.76	-121.39	41	1.99	10,264	3,355
SJ	PM	I5-N	468.70	R23.21	37.91	-121.29	31	2.80	9,895	2,335
SJ	PM	I205-W	11.41	R10.48	37.77	-121.37	43	1.63	9,250	4,170
SJ	PM	I205-W	13.13	R12.195	37.77	-121.35	46	1.26	8,373	4,600

SUMMARY TABLE FOR THE 2022 Q3 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective October 2022. 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
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
End Project – 12/01/2022

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 PRS/PDS; PA&ED Scheduled for mid-2016
End Project – Estimated to be mid 2023

SJ 120 RAMP METERING IMPROVEMENTS; EA 10-1F040
Install ramp meters along SR 4 between the I-5 and SR 99 Connectors
Currently in PS&E
End Project – Estimated to be 2023

I-205 SMART CORRIDOR PHASE 2; EA 10-1C330
Install ramp meters and ITS elements along I205 from MacArthur to Grant Line Road
Currently in PS&E
End Project – Estimated to be 2023

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 2027

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 2027

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 2027

STANISLAUS COUNTY

STA 99 / SJ 99 RAMP METERING & MAINLINE IMPROVEMENTS; EA 10-1C300
Improve Mainline and Ramp Operations; Standardize Structure Clearance; Add Auxiliary Lane
Project Complete

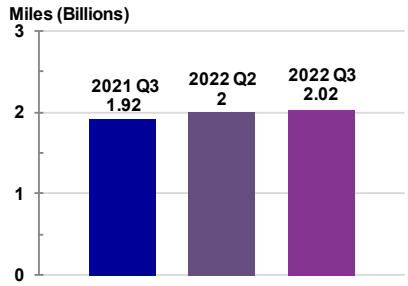
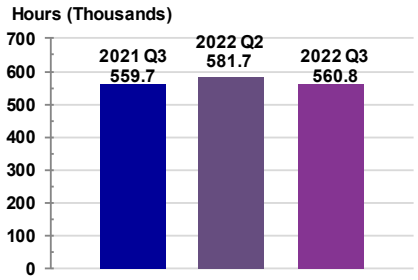
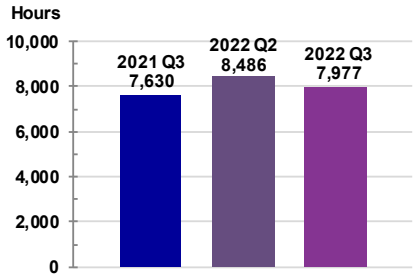
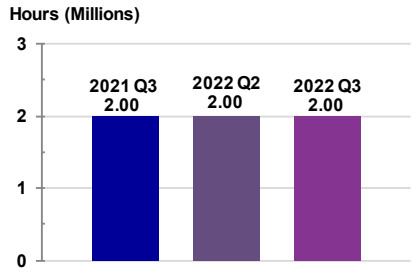
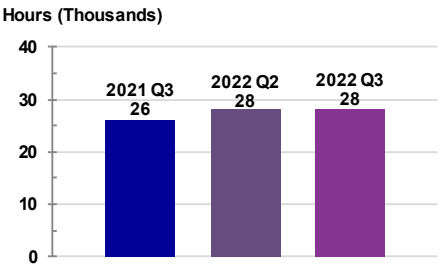
The above capacity increasing, ramp metering, interchange improvement, and interchange construction projects are located on the routes, in the cities, and in the counties that experience the most congestion in District 10. It is expected that the projects will help increase the Vehicle Miles

Traveled while reducing 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 2022 Q3 Quarterly Mobility Statistics.

2022 Q3 Quarterly Mobility Statistics
District 10

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

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		5.3%	1.1%
Total Vehicle Hours of Delay (VHD) at 35 mph		0.2%	-3.6%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		4.5%	-6%
Total Vehicle Hours of Delay (VHD) at 60 mph		3.6%	2.1%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		6.5%	0.1%

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2022 Q3 Quarterly Mobility Statistics
District 10

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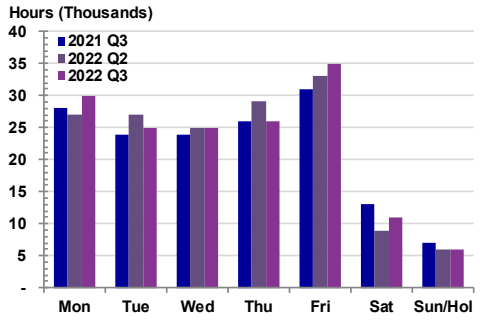
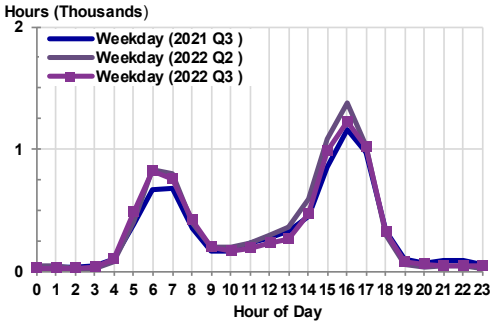
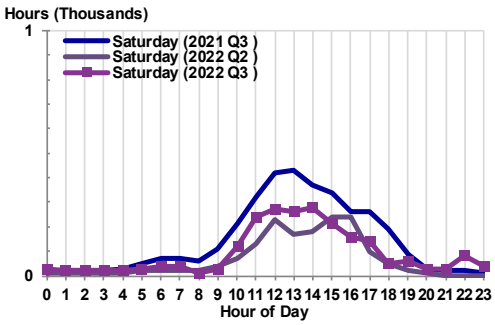
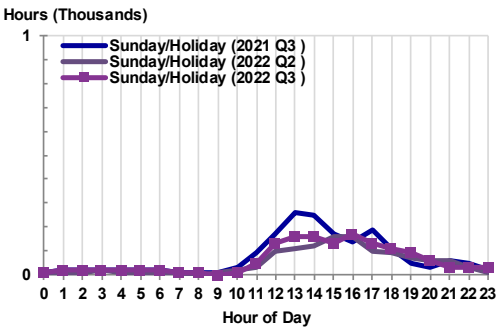
Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Saturday -19.1%	Largest Magnitude Decrease over last quarter Tuesday -8.9%
		Largest Magnitude Increase over one year ago Friday 13.5%	Largest Magnitude Increase over last quarter Monday 9.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 1 PM -21.3%	Largest Magnitude Weekday Decrease over last quarter 4 PM -11.8%
		Largest Magnitude Weekday Increase over one year ago 6 AM 22.6%	Largest Magnitude Weekday Increase over last quarter 5 AM 17.8%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 1 PM -39.1%	Largest Magnitude Saturday Decrease over last quarter 4 PM -34%
		Largest Magnitude Saturday Increase over one year ago 10 PM 218.9%	Largest Magnitude Saturday Increase over last quarter 11 AM 82.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 1 PM -40.1%	Largest Magnitude Sun./Holiday Decrease over last quarter 9 PM -55.7%
		Largest Magnitude Sun./Holiday Increase over one year ago 7 PM 75.5%	Largest Magnitude Sun./Holiday Increase over last quarter 1 PM 46.3%

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2022 Q3 Quarterly Mobility Statistics
District 10

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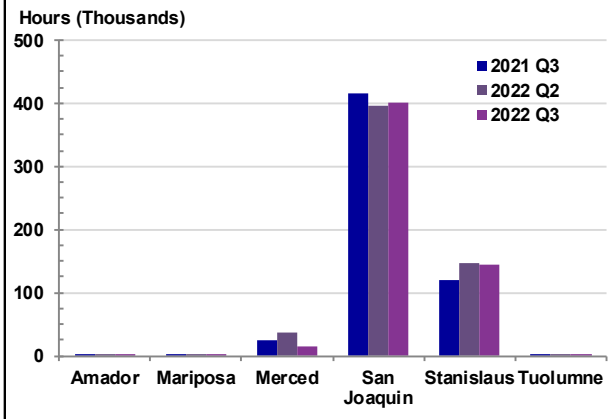
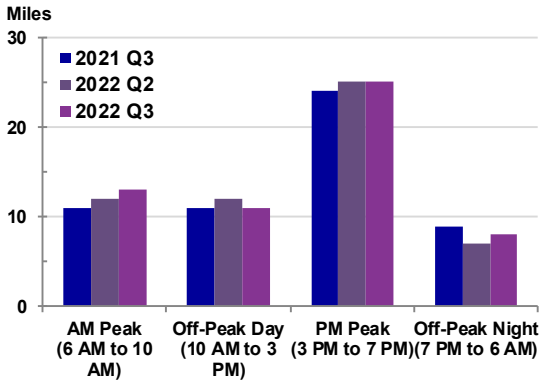
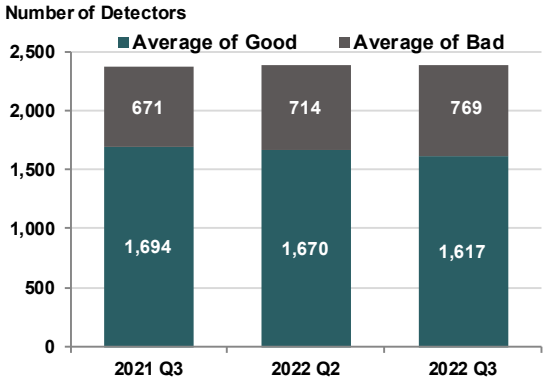
Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago San Joaquin -3.5%	Largest Magnitude Decrease over last quarter Merced -60.6%
		Largest Magnitude Increase over one year ago Stanislaus 20.6%	Largest Magnitude Increase over last quarter San Joaquin 1.5%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago Off-Peak Night -9.9%	Largest Magnitude Decrease over last quarter Off-Peak Day -11.1%
		Largest Magnitude Increase over one year ago AM Peak 16.4%	Largest Magnitude Increase over last quarter AM Peak 7.5%
Average Number of Good and Bad Detectors		Change in Good over one year ago -5%	Change in Good over last quarter -3%
		Change in Bad over one year ago 15%	Change in Bad over last quarter 8%

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Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2022 Q3-2021 Q3		Difference 2022 Q3-2022 Q2		Rank		
Route	County	2021 Q3	2022 Q2	2022 Q3	Absolute	Percentage	Absolute	Percentage	2021 Q3	2022 Q2	2022 Q3
I205	San Joaquin	314,289	235,466	176,581	-137,708	-43.8%	-58,884	-25.0%	1	1	1
SR99	San Joaquin	81,381	101,048	103,793	22,412	27.5%	2,745	2.7%	3	3	2
SR99	Stanislaus	92,085	103,676	99,395	7,310	7.9%	-4,281	-4.1%	2	2	3
I5	San Joaquin	70,856	43,684	47,971	-22,886	-32.3%	4,287	9.8%	4	4	4
SR120	San Joaquin	34,572	27,846	34,185	-387	-1.1%	6,339	22.8%	5	7	5
SR132	Stanislaus	19,401	33,364	30,182	10,780	55.6%	-3,182	-9.5%	8	6	6
SR4	San Joaquin	28,339	33,469	17,719	-10,620	-37.5%	-15,750	-47.1%	6	5	7
I5	Stanislaus	6,070	8,726	11,999	5,929	97.7%	3,274	37.5%	10	11	8
I580	San Joaquin	11,180	13,714	11,227	47	0.4%	-2,487	-18.1%	9	10	9
SR99	Merced	21,312	20,204	8,029	-13,283	-62.3%	-12,175	-60.3%	7	8	10
SR12	San Joaquin	4,134	5,830	5,468	1,335	32.3%	-362	-6.2%	12	12	11
SR132	San Joaquin	4,927	5,077	4,510	-417	-8.5%	-567	-11.2%	11	13	12
SR165	Merced	1,856	1,304	3,773	1,917	103.3%	2,469	189.4%	13	15	13
SR219	Stanislaus	1,375	1,365	1,876	501	36.5%	511	37.5%	14	14	14
SR152	Merced	13	14,975	1,803	1,790	13661.8%	-13,172	-88.0%	21	9	15
I5	Merced	211	637	1,013	802	381.0%	376	59.0%	19	17	16
SR108	Tuolumne	647	212	783	135	20.9%	571	270.0%	15	19	17
SR120	Tuolumne	342	1,157	367	24	7.1%	-791	-68.3%	16	16	18
SR16	Amador	296	390	116	-180	-60.9%	-275	-70.4%	17	18	19
SR49	Mariposa	51	110	44	-7	-13.8%	-66	-59.7%	20	20	20
SR88	San Joaquin	0	34	5	5		-30	-86.6%		22	21
SR104	Amador	246	0	2	-245	-99.3%	2		18		22
SR140	Merced	0	0	1	1		1				23
SR124	Amador	0	6	1	1	900.0%	-5	-83.6%	23	23	24
SR49	Tuolumne	13	1	1	-12	-94.4%	-1	-50.0%	22	24	25
SR88	Amador	0	65	0	0		-65	-99.5%		21	26
TOTALS		**693,597**	**652,360**	**560,843**	**-132,754**	**-19.1%**	**-91,517**	**-14.0%**			

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