

District 10 Mobility Performance Report

2021 Third Quarter

DEPARTMENT OF TRANSPORTATION

October 29, 2021

: Jaime Q. Quesada

District 10 Mobility Performance Report

2021 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 560 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 2 million VHD at the 60 mph threshold. Compared to the same quarter the year before, there was a 65.9 percent total delay increase in 35 mph quarterly delay and 32.7

percent total delay increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 7,630 VHD at 35 mph and 26,492 VHD at 60 mph. Compared to the same quarter the year before, there was a 60.9 percent increase in 35 mph average weekday quarterly delay and 29.7 percent increase in 60 mph average weekday quarterly delay. The increased delay numbers at 35 mph and 60 mph can mainly be attributed to the fact that the COVID-19 lockdown restrictions were rolled back during the second quarter and third quarters of 2021. It is expected that the fourth quarter of 2021 will show an additional increased delay across the board if COVID-19 lockdown restriction continue to be rolled back.

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	R1.691	R0.761	37.74	-121.54	60	2.88	92,994.60	12,115.00
SJ	PM	SR99-S	236.56	0.776	37.74	-121.12	49	2.37	28,638.50	8,260.00
STA	PM	SR132-E	9.42	1.556	37.64	-121.25	50	5.26	27,178.10	7,200.00
SJ	PM	SR4-E	R66.428	R18.9	37.96	-121.25	47	3.13	18,673.30	4,200.00
SJ	PM	SR99-S	240.43	4.64	37.77	-121.18	59	1.00	18,424.80	10,705.00
SJ	PM	I205-E	R12.87	R11.94	37.77	-121.34	57	1.80	16,463.80	6,275.00
SJ	PM	SR99-S	238.76	2.971	37.76	-121.15	61	1.44	16,341.20	8,160.00
SJ	PM	I205-E	R9.44	R8.51	37.76	-121.41	60	1.39	13,663.50	7,145.00
SJ	PM	I205-E	R10.22	R9.29	37.76	-121.39	37	2.45	12,858.00	3,350.00
SJ	PM	SR99-S	237.50	1.71	37.75	-121.13	60	1.33	10,097.00	4,625.00

SUMMARY TABLE FOR THE 2021 Q3 REPORT

The following District 10 projects are currently being constructed or are scheduled for construction effective October 2021. 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 99 SB LIVINGSTON MEDIAN WIDENING; EA 10-0Q122

Lane widening from 2 to 3 lanes
Approve Construction Contract Date – 01/19/2019
End Project – 01/01/2022

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 – 11/01/2022

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 2022

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 2022

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 2025

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 2025

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 2025

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 2021 Q3 Quarterly Mobility Statistics.

2021 Q3 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 border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2020</td><td>1.7</td></tr> <tr><td>2021</td><td>1.9</td></tr> </table>	Year	Q3	2020	1.7	2021	1.9	Over one year ago	Over last quarter
		Year	Q3						
		2020	1.7						
2021	1.9								
11.9%	0.5%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2020</td><td>337</td></tr> <tr><td>2021</td><td>560</td></tr> </table>	Year	Q3	2020	337	2021	560	Over one year ago	Over last quarter
		Year	Q3						
		2020	337						
2021	560								
65.9%	-4.5%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2020</td><td>4,742</td></tr> <tr><td>2021</td><td>7,630</td></tr> </table>	Year	Q3	2020	4,742	2021	7,630	Over one year ago	Over last quarter
		Year	Q3						
		2020	4,742						
2021	7,630								
60.9%	-5.2%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2020</td><td>1.5</td></tr> <tr><td>2021</td><td>2</td></tr> </table>	Year	Q3	2020	1.5	2021	2	Over one year ago	Over last quarter
		Year	Q3						
		2020	1.5						
2021	2								
32.7%	-1.8%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q3</th></tr> <tr><td>2020</td><td>20</td></tr> <tr><td>2021</td><td>26</td></tr> </table>	Year	Q3	2020	20	2021	26	Over one year ago	Over last quarter
		Year	Q3						
		2020	20						
2021	26								
29.7%	-2.5%								

For further information regarding the content of this report, contact:
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2021 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		<p>Largest Magnitude Decrease over one year ago</p> <p>Largest Magnitude Decrease over last quarter</p> <p>Friday -7.6% ↓</p> <p>Largest Magnitude Increase over one year ago</p> <p>Largest Magnitude Increase over last quarter</p> <p>Monday 47.3% ↑</p> <p>Saturday 13.1% ↑</p>	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		<p>Largest Magnitude Weekday Decrease over one year ago</p> <p>Largest Magnitude Weekday Decrease over last quarter</p> <p>4 AM -22.1% ↓</p> <p>3 PM -20.7% ↓</p> <p>Largest Magnitude Weekday Increase over one year ago</p> <p>Largest Magnitude Weekday Increase over last quarter</p> <p>7 AM 162.5% ↑</p> <p>6 PM 22.8% ↑</p>	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		<p>Largest Magnitude Saturday Decrease over one year ago</p> <p>Largest Magnitude Saturday Decrease over last quarter</p> <p>-</p> <p>11 PM -80.7% ↓</p> <p>Largest Magnitude Saturday Increase over one year ago</p> <p>Largest Magnitude Saturday Increase over last quarter</p> <p>12 PM 329.6% ↑</p> <p>1 PM 52.2% ↑</p>	
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		<p>Largest Magnitude Sun./Holiday Decrease over one year ago</p> <p>Largest Magnitude Sun./Holiday Decrease over last quarter</p> <p>4 PM -17.8% ↓</p> <p>12 PM -38.2% ↓</p> <p>Largest Magnitude Sun./Holiday Increase over one year ago</p> <p>Largest Magnitude Sun./Holiday Increase over last quarter</p> <p>5 PM 44.7% ↑</p> <p>9 PM 40.8% ↑</p>	

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2021 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	Largest Magnitude Decrease over last quarter
		Tuolumne -50.6%	San Joaquin -4.3%
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
		PM Peak 40.1%	Off-Peak Night 26.6%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-3%	1%
		Change in Bad over one year ago	Change in Bad over last quarter
		14%	-1%

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2021 Q3 Quarterly Mobility Statistics District 10

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Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2021 Q3-2020 Q3		Difference 2021 Q3-2021 Q2		Rank		
		2020 Q3	2021 Q2	2021 Q3	Absolute	Percentage	Absolute	Percentage	2020 Q3	2021 Q2	2021 Q3
		I205	San Joaquin	152318.4	286010.1	314289.4	161971	106%	28,279	10%	1
SR99	Stanislaus	36801.7	77326.3	92085.1	55283.4	150%	14,759	19%	4	4	2
SR99	San Joaquin	56464.9	98244.9	81381.1	24916.2	44%	(16,864)	-17%	2	2	3
I5	San Joaquin	41210.5	86580.4	70856.4	29645.9	72%	(15,724)	-18%	3	3	4
SR120	San Joaquin	15104.4	27870.7	34571.6	19467.2	129%	6,701	24%	6	7	5
SR4	San Joaquin	14460.5	35375.1	28339.3	13878.8	96%	(7,036)	-20%	7	5	6
SR99	Merced	11978.3	27461.5	21312.2	9333.9	78%	(6,149)	-22%	8	8	7
SR132	Stanislaus	22366.2	31448.7	19401.1	-2965.1	-13%	(12,048)	-38%	5	6	8
I580	San Joaquin	5577.7	14829.4	11180.2	5602.5	100%	(3,649)	-25%	10	9	9
I5	Stanislaus	10487.8	5846.1	6070.1	-4417.7	-42%	224	4%	9	10	10
SR132	San Joaquin	4616.3	4964.2	4926.9	310.6	7%	(37)	-1%	11	11	11
SR12	San Joaquin	3826.2	3857.3	4133.6	307.4	8%	276	7%	12	12	12
SR165	Merced	1577.3	1695	1856.1	278.8	18%	161	10%	16	15	13
SR219	Stanislaus	1668.2	1547.3	1374.8	-293.4	-18%	(173)	-11%	15	16	14
SR108	Tuolumne	2007.7	2250.9	647.2	-1360.5	-68%	(1,604)	-71%	14	14	15
SR120	Tuolumne	19.5	388.6	342.3	322.8	1655%	(46)	-12%	20	18	16
SR16	Amador	279.2	889.1	295.6	16.4	6%	(594)	-67%	18	17	17
SR104	Amador	4.2	4.8	246.3	242.1	5764%	242	5031%	21	23	18
I5	Merced	2878.9	2298.1	210.6	-2668.3	-93%	(2,088)	-91%	13	13	19
SR49	Mariposa	44.3	131.5	51.4	7.1	16%	(80)	-61%	19	20	20
SR152	Merced	487.2	46.9	13.1	-474.1	-97%	(34)	-72%	17	21	21
SR49	Tuolumne	2.6	25.5	12.6	10	385%	(13)	-51%	22	22	22
SR124	Amador	1.2	0	0.1	-1.1	-92%	0		23		23
SR88	Amador	1.1	335	0	-1.1	-100%	(335)	-100%	24	19	
TOTALS		384,184	709,427	693,597	309,413	80.5%	-15,830	-2.2%			

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