District 10 Mobility Performance Report

2019 Second Quarter

DEPARTMENT OF TRANSPORTATION

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District 10 Mobility Performance Report

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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 or annual analysis.

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, total delay equaled 620 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 1.9 million VHD at the 60 mph threshold. Compared to the same quarter the

year before, there was an 88.1 percent increase in 35 mph quarterly delay and 65.7 percent increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 8,646 VHD at 35 mph and 25,730 VHD at 60 mph. The increased delay numbers can mainly be attributed to a 20 percent increase in the number of good detectors and -29% percent decrease in the number of bad detectors compared to the second quarter of 2019.

The following District 10 projects are currently being constructed or are scheduled for construction effective August 2019. 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 – 10/01/2021

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 – 10/01/2020

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 2020

SJ 120 RAMP METERING IMPROVEMENTS; EA 10-1F040
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 2020

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 PA&ED
End Project – 11/01/2020

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 PA&ED
End Project – Estimated mid 2022

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 PA&ED
End Project – Estimated mid 2022

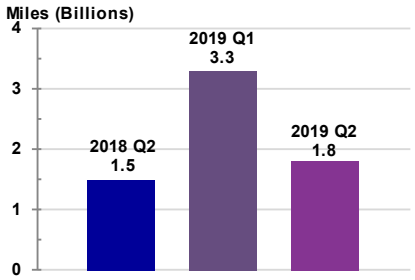
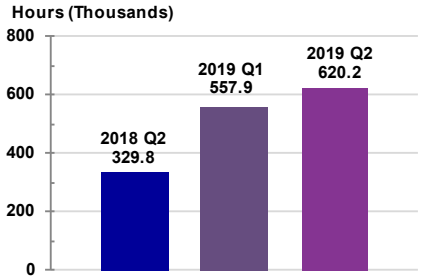
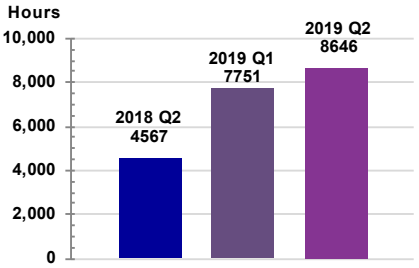
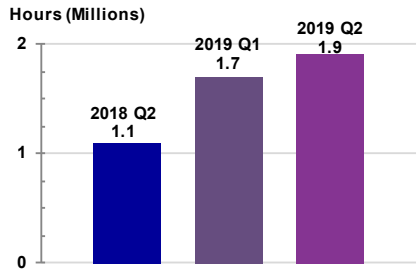
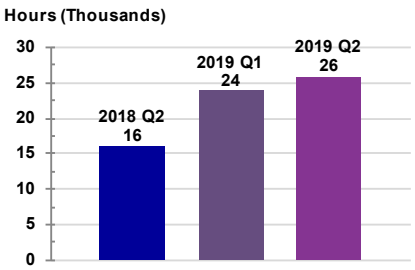
I-205 – LAMMERS ROAD / 11TH STREET INTERCHANGE PROJECT; EA 10-0H910
Construct the I-205 – Lammers Road / 11th Street Interchange to accommodate planned future growth in and around the City of Tracy
Currently in PA&ED
End Project – Estimated mid 2022

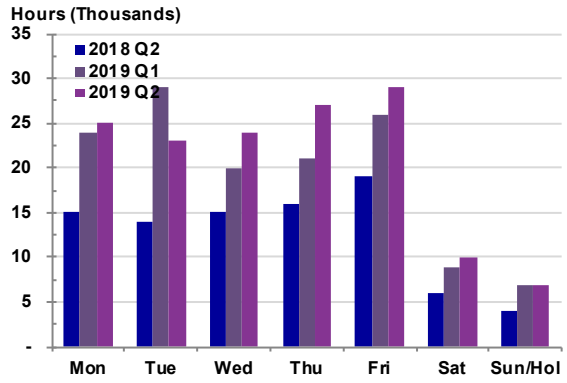
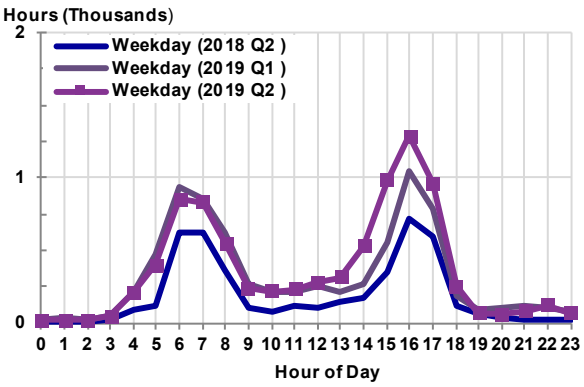
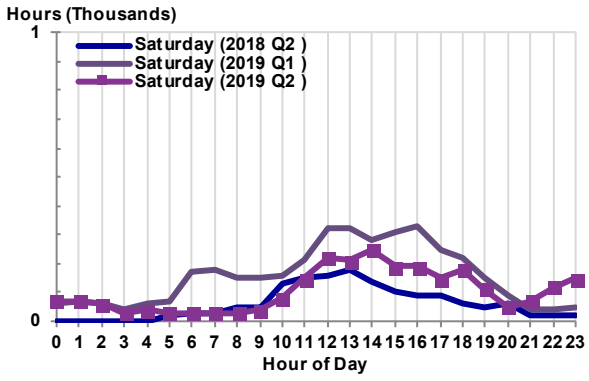
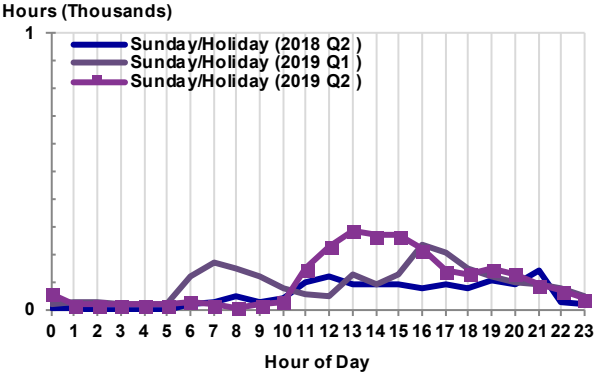
STANISLAUS COUNTY
STA 99 / SJ 99 RAMP METERING & MAINLINE IMPROVEMENTS; EA 10-1C300
Improve Mainline and Ramp Operations; Standardize Structure Clearance; Add Auxiliary Lane
Currently in PA&ED
End Project – Estimated to be mid 2020

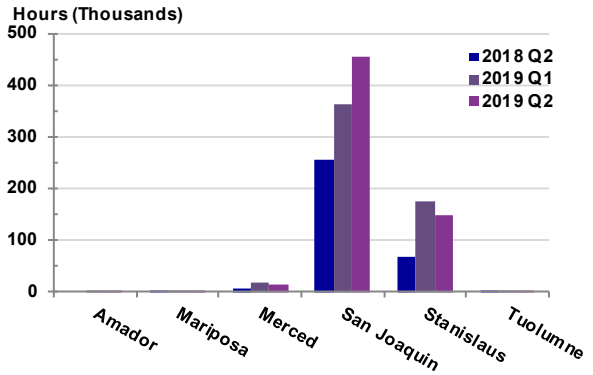
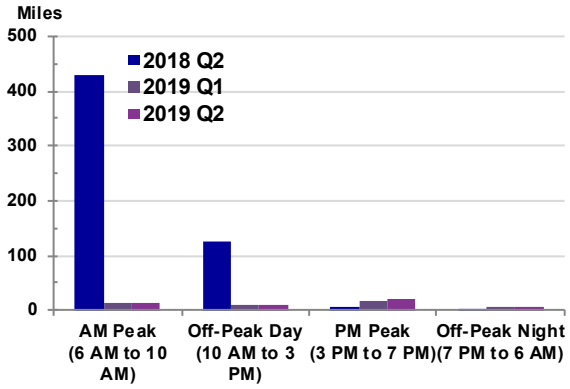
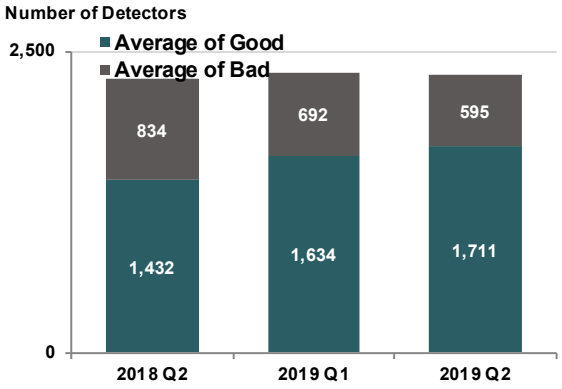
The above capacity increasing, ramp metering, interchange improvement, and interchange construction projects are located on the routes, in the cities, and in the counties that experience the most congestion in District 10. It is expected that the projects will help increase the Vehicle Miles Traveled 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 2019 Q2 Quarterly Mobility Statistics.

2019 Q2 Quarterly Mobility Statistics – District 10

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		23.4%	-45.5%
Total Vehicle Hours of Delay (VHD) at 35 mph		88.1%	11.2%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		89.3%	11.6%
Total Vehicle Hours of Delay (VHD) at 60 mph		65.7%	11.6%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		64.1%	8.1%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Tuesday -19%
		Largest Magnitude Increase over one year ago Thursday 72.6%	Largest Magnitude Increase over last quarter Thursday 32.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago –	Largest Magnitude Weekday Decrease over last quarter 6 AM -9.4%
		Largest Magnitude Weekday Increase over one year ago 3 PM 176.4%	Largest Magnitude Weekday Increase over last quarter 3 PM 73.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 10 AM -39.8%	Largest Magnitude Saturday Decrease over last quarter 7 AM -83.1%
		Largest Magnitude Saturday Increase over one year ago 11 PM 839.3%	Largest Magnitude Saturday Increase over last quarter 11 PM 203.1%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 9 PM -36%	Largest Magnitude Sun./Holiday Decrease over last quarter 7 AM -90.2%
		Largest Magnitude Sun./Holiday Increase over one year ago 1 PM 208.9%	Largest Magnitude Sun./Holiday Increase over last quarter 2 PM 205.4%

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 Stanislaus -15.4%
		Largest Magnitude Increase over one year ago San Joaquin 78.3%	Largest Magnitude Increase over last quarter San Joaquin 25.8%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago AM Peak -97%	Largest Magnitude Decrease over last quarter AM Peak -12%
		Largest Magnitude Increase over one year ago PM Peak 145.4%	Largest Magnitude Increase over last quarter PM Peak 15.4%
Average Number of Good and Bad Detectors		Change in Good over one year ago 20%	Change in Good over last quarter 5%
		Change in Bad over one year ago -29%	Change in Bad over last quarter -14%

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

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2019 Q2-2018 Q2		Difference 2019 Q2-2019 Q1		Rank		
Route	County	2018 Q2	2019 Q1	2019 Q2	Absolute	Percentage	Absolute	Percentage	2018 Q2	2019 Q1	2019 Q2
I205	San Joaquin	385,323	326,954	373,298	-12,025	-3.1%	46,344	14.2%	1	1	1
SR99	Stanislaus	37,993	144,129	109,964	71,971	189.4%	-34,165	-23.7%	3	2	2
SR99	San Joaquin	32,978	46,922	85,545	52,567	159.4%	38,624	82.3%	4	4	3
I5	San Joaquin	10,348	38,052	79,130	68,781	664.7%	41,078	108.0%	7	5	4
SR132	Stanislaus	24,300	17,455	31,265	6,965	28.7%	13,811	79.1%	6	8	5
SR4	San Joaquin	32,040	20,354	30,328	-1,712	-5.3%	9,974	49.0%	5	6	6
SR120	San Joaquin	561	20,191	27,696	27,135	4834.3%	7,506	37.2%	13	7	7
I580	San Joaquin	54,057	84,781	24,360	-29,697	-54.9%	-60,421	-71.3%	2	3	8
SR99	Merced	6,517	14,144	10,226	3,709	56.9%	-3,919	-27.7%	8	9	9
SR132	San Joaquin	779	9,833	7,132	6,353	815.4%	-2,701	-27.5%	11	11	10
SR12	San Joaquin	0	6,364	5,418	5,418	5418300.0%	-946	-14.9%	19	12	11
I5	Stanislaus	1,859	10,859	4,410	2,551	137.2%	-6,449	-59.4%	10	10	12
SR152	Merced	369	1,787	3,390	3,021	819.2%	1,603	89.7%	14	15	13
SR219	Stanislaus	2,853	2,887	2,766	-87	-3.1%	-121	-4.2%	9	13	14
SR108	Tuolumne	672	1,645	1,194	522	77.6%	-452	-27.5%	12	16	15
I5	Merced	2	234	1,077	1,075	53770.0%	844	361.0%	18	19	16
SR49	Mariposa	102	471	374	272	266.7%	-97	-20.6%	17	18	17
SR88	Amador	0	199	339	339		140	70.4%		20	18
SR16	Amador	0	14	286	286		272	1956.1%		21	19
SR124	Amador	0	4	277	277		273	6495.2%		23	20
SR49	Tuolumne	267	1	272	5	1.8%	271	45233.3%	15	24	21
SR120	Tuolumne	0	2,462	232	232		-2,230	-90.6%		14	22
SR165	Merced	132	550	153	22	16.6%	-397	-72.1%	16	17	23
SR104	Amador	0	5	2	2		-3	-66.7%		22	24
SR120	Stanislaus	0	0	0	0		0				
TOTALS		**591,152**	**750,297**	**799,134**	**207,982**	**35.2%**	**48,837**	**6.5%**			