District 10 Mobility Performance Report

2018 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 second quarter, total delay equaled 330 thousand vehicle hours of delay (VHD) at the 35 mph speed threshold and 1.1 million VHD at the 60 mph threshold. Compared to the same quarter the

year before, there was a 350.2 percent increase in 35 mph quarterly delay and 58.9 percent increase in 60 mph quarterly delay. The average weekday delay experienced in this quarter was approximately 4,567 VHD at 35 mph and 15,680 VHD at 60 mph. The increased delay numbers can mainly be attributed to a 60 percent increase in the number of good detectors compared to the second quarter of 2017.

The following District 10 projects are currently being constructed or are scheduled for construction effective July 2018. 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 – 11/01/2021

STANISLAUS COUNTY

STA 99 / SJ 99 RAMP METERING & MAINLINE IMPROVEMENTS; EA 10-1C300

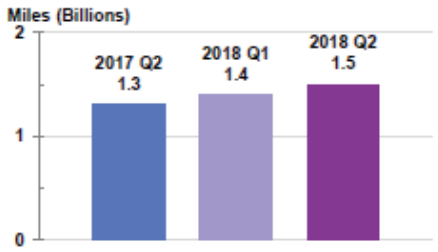
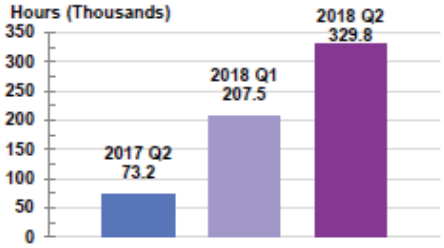
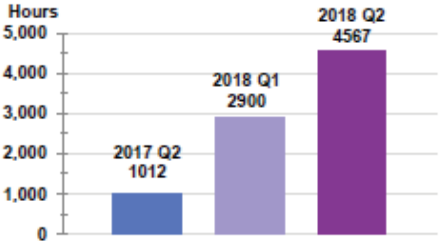
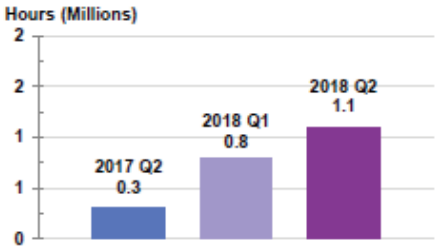
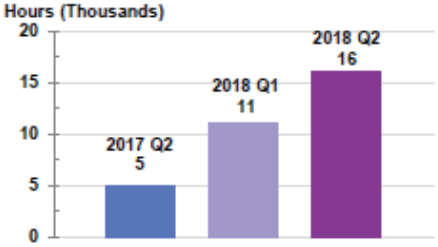
Improve Mainline and Ramp Operations; Standardize Structure Clearance; Add Auxiliary Lane
Currently in PA&ED
End Project – Estimated to be mid 2020

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 2018 Q1 Quarterly Mobility Statistics.

2018 Q2 Quarterly Mobility Statistics – District 10

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

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		11.3%	6.2%
Total Vehicle Hours of Delay (VHD) at 35 mph		350.2%	58.9%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		351.2%	57.5%
Total Vehicle Hours of Delay (VHD) at 60 mph		254.3%	45.2%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		246.9%	42.1%

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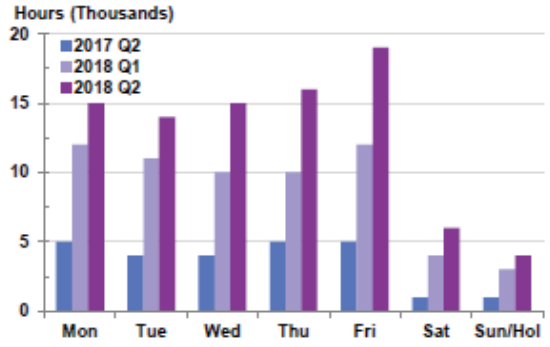
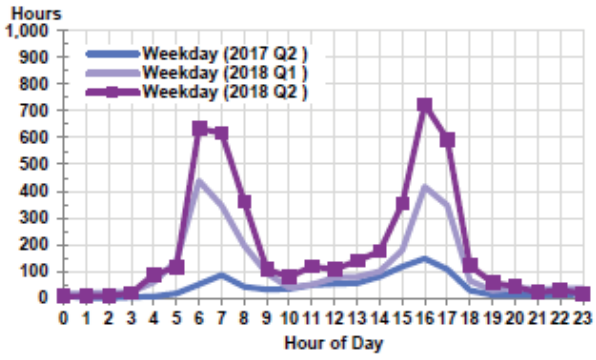
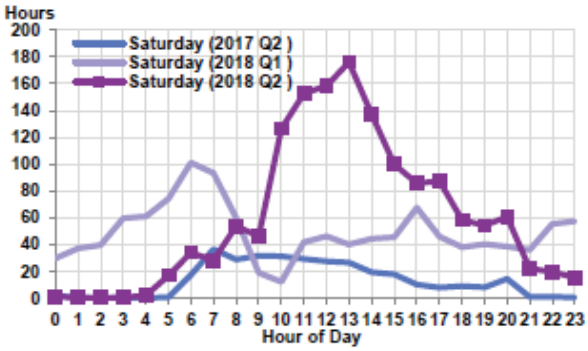
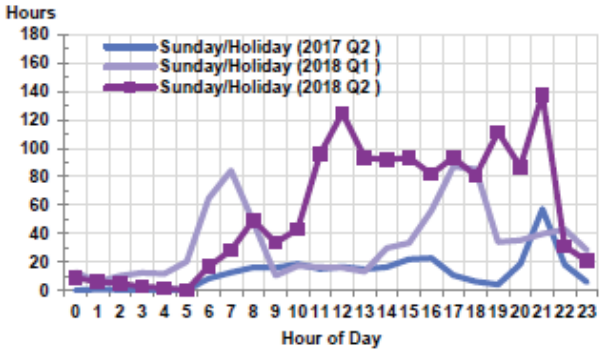
Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter –
		Largest Magnitude Increase over one year ago Friday 257.3%	Largest Magnitude Increase over last quarter Friday 56.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 12 AM -26.7%	Largest Magnitude Weekday Decrease over last quarter 5 AM -16.5%
		Largest Magnitude Weekday Increase over one year ago 6 AM 1120.6%	Largest Magnitude Weekday Increase over last quarter 4 PM 73.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 7 AM -23%	Largest Magnitude Saturday Decrease over last quarter 6 AM -66.3%
		Largest Magnitude Saturday Increase over one year ago 1 PM 556.8%	Largest Magnitude Saturday Increase over last quarter 1 PM 338%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 5 AM -46.8%	Largest Magnitude Sun./Holiday Decrease over last quarter 7 AM -66.5%
		Largest Magnitude Sun./Holiday Increase over one year ago 12 PM 651.4%	Largest Magnitude Sun./Holiday Increase over last quarter 12 PM 685.4%

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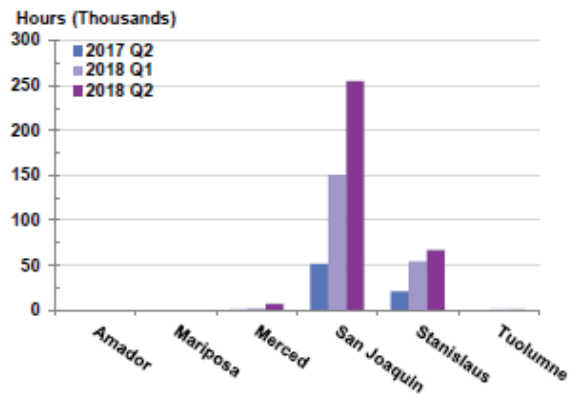
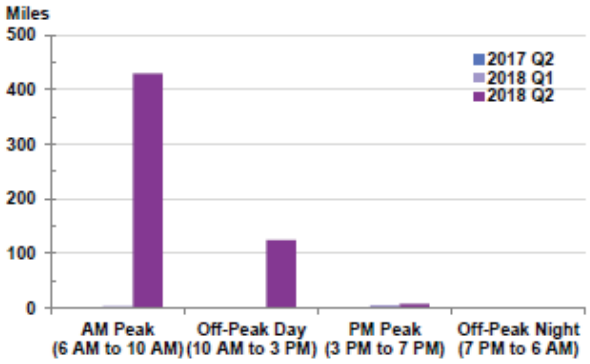
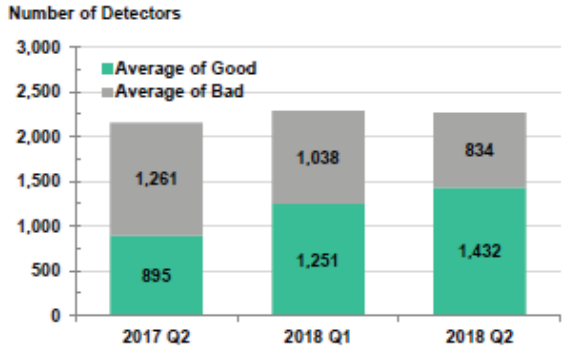
Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Amador -100%
		Largest Magnitude Increase over one year ago San Joaquin 394.8%	Largest Magnitude Increase over last quarter San Joaquin 69%
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 –
		Largest Magnitude Increase over one year ago AM Peak 50998.8%	Largest Magnitude Increase over last quarter AM Peak 10105.2%
Average Number of Good and Bad Detectors		Change in Good over one year ago 60%	Change in Good over last quarter 14%
		Change in Bad over one year ago -34%	Change in Bad over last quarter -20%

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

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2018 Q2-2017 Q2		Difference 2018 Q2-2018 Q1		Rank		
Route	County	2017 Q2	2018 Q1	2018 Q2	Absolute	Percentage	Absolute	Percentage	2017 Q2	2018 Q1	2018 Q2
I205	San Joaquin	188202.8	203735.6	385323	197120.2	105%	181,587	89%	1	1	1
I580	San Joaquin	6839.1	54481.8	54056.7	47217.6	690%	(425)	-1%	4	2	2
SR99	Stanislaus	18271.1	30933.7	37993.2	19722.1	108%	7,060	23%	3	3	3
SR99	San Joaquin	37375.7	23707.3	32978	-4397.7	-12%	9,271	39%	2	4	4
SR4	San Joaquin	1016.7	5905	32040	31023.3	3051%	26,135	443%	8	7	5
SR132	Stanislaus	0	20244.3	24300	24300		4,056	20%		5	6
I5	San Joaquin	3417.4	8853.5	10348.3	6930.9	203%	1,495	17%	5	6	7
SR99	Merced	710	1277.3	6516.9	5806.9	818%	5,240	410%	9	9	8
SR219	Stanislaus	2796.7	3100	2853	56.3	2%	(247)	-8%	6	8	9
I5	Stanislaus	0	26.7	1858.8	1858.8		1,832	6862%		14	10
SR132	San Joaquin	2582.3	214.1	779.1	-1803.2	-70%	565	264%	7	13	11
SR108	Tuolumne	0	861.4	671.9	671.9		(190)	-22%		10	12
SR120	San Joaquin	501.8	227	561.3	59.5	12%	334	147%	10	12	13
SR152	Merced	0	15.9	368.8	368.8		353	2219%		16	14
SR49	Tuolumne	0	16.4	267.1	267.1		251	1529%		15	15
SR165	Merced	0	306.3	131.6	131.6		(175)	-57%		11	16
SR49	Mariposa	0	0	102.1	102.1		102				17
I5	Merced	0	0	2	2		2				18
SR12	San Joaquin	0	0	0.1	0.1		0				19
SR104	Amador	0	0	0	0		-				
SR120	Tuolumne	0	0	0	0		-				
SR88	Amador	0	3.4	0	0		(3)	-100%		17	
TOTALS		**261,714**	**353,910**	**591,152**	**329,438**	**125.9%**	**237,242**	**67.0%**			