District 03
Mobility Performance Report

2024 Second Quarter

DEPARTMENT OF TRANSPORTATION

July 26, 2024
Office of Freeway Operations

2024 Second Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 3 is comprised of eleven counties located in Northern California. Most of the congestion and delay on the state highway system occurs in the urbanized areas of Sacramento, Yolo, and Placer counties.

The Mobility Performance Report (MPR) quarterly analysis compares information from the current quarter, the previous quarter, and the prior year. The following performance measures were used to quantify freeway congestion in District 3 as well as to compare the different quarters:

- Bottleneck Locations
- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on data collected by automated vehicle detector stations deployed on urban freeways through the Caltrans Performance Measurement System (PeMS). Where congestion is regularly experienced, PeMS continuously gathers data 24 hours a day, every day of the quarter. The MPR presents congestion information for 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 the delay at 60 mph represents all congestion (both light and heavy). These thresholds are set by Caltrans District 3 Office of Freeway Operations and prior traffic engineering experience.

FINDINGS

In the second quarter of 2024, there was an increase in delay, that may have been the result of the Return to Office (RTO) policy for California State Department employees. Weekday delay data supported this analysis since delay had increased from Monday to Friday when compared with the previous quarter and the 2nd quarter of 2023. Compared with the same periods, weekday Peak Hour delay had significantly increased at 8:00 AM and 3:00 PM. See the graphs on page 5 for reference. The total delay on District 3 freeways equaled *1.20* million Vehicle Hours of Delay (VHD) below the 35-mph speed threshold and *3.2* million VHD below the 60-mph threshold. The average delay experienced on weekdays in this quarter was approximately *16* thousand VHD below 35 mph, and *43* thousand VHD below 60 mph. VHD at 35 and 60 mph thresholds have increased when Compared with the previous quarter and the second quarter of 2023.

Vehicle Miles of Travel (VMT) was higher than the previous quarter with a total of *2.83* billion miles, an 5.3% increase. At 60-mph threshold, District 3 Average Weekday Delay was 43,364 vph. When using Average Vehicle Occupancy (AVO) of 1.73 as directed by guideline, the Daily Person Hours of Delay (DPHD) for District 3 was 75,019 hours for this quarter.

Delay is more concentrated in the AM and PM commute hours for weekdays and is less on Weekends.

Top Ten Bottlenecks for Quarter 2

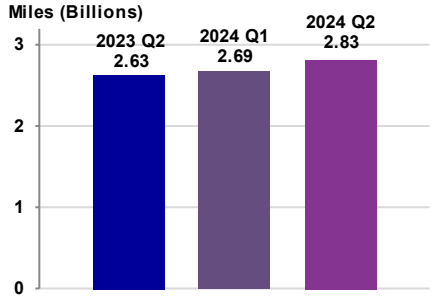
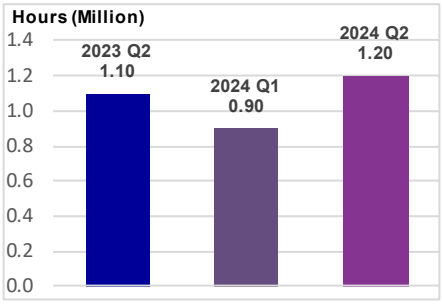
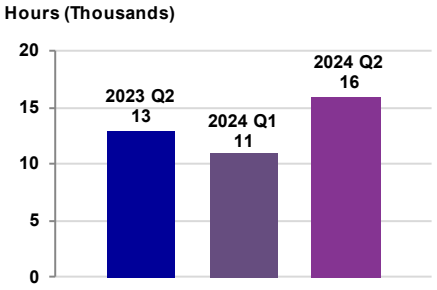
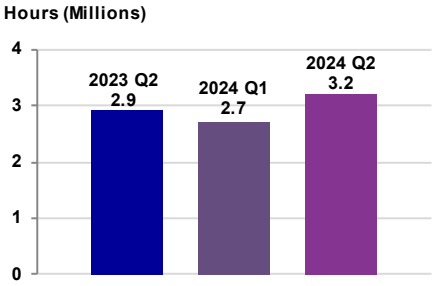
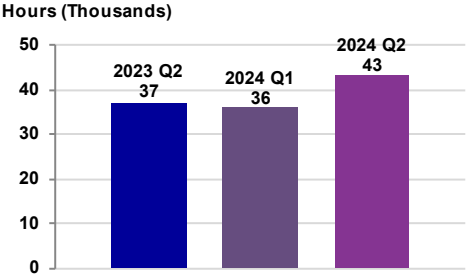
County	Fwy	Name	Type	Shift	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
SAC	SR51-S	EB Exposition Bl	ML	PM	3.33	3.326	38.60	-121.44	63	1.80	53,047	13,615
YUBE	SR70-E	70EB Yuba River Br	ML	PM	20.15	13.524	39.13	-121.58	51	2.83	47,267	8,325
YOLO	I80-E	80EB at Mace Blvd	ML	PM	74.90	2.714	38.55	-121.69	62	2.62	33,802	8,730
SAC	SR51-N	51NB Elvas Underpass	ML	PM	2.09	2.089	38.58	-121.46	63	1.59	28,671	9,825
PLA	I80-W	EB Douglas Blvd	ML	PM	103.38	1.876	38.74	-121.27	61	1.83	27,834	9,240
SAC	SR99-S	99SB at Cosumnes	ML	PM	290.68	16.23	38.46	-121.41	63	1.67	22,139	9,870
SAC	SR51-S	EB Exposition Bl	ML	AM	3.33	3.326	38.60	-121.44	58	1.55	20,002	5,560
ED	US50-E	Midway Rd	ML	PM	107.96	79.801	38.95	-119.95	63	3.30	19,424	18,885
PLA	SR65-S	Pleasant Grove Blvd	ML	PM	66.91	R7.189	38.79	-121.29	63	1.41	19,230	9,655
PLA	SR65-N	Galleria Blvd-NB RMS	ML	PM	65.79	R6.062	38.78	-121.27	57	1.76	18,221	7,475

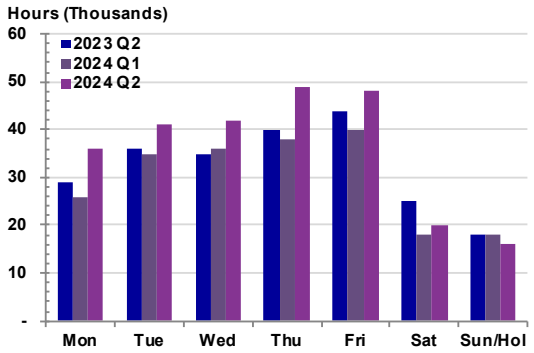
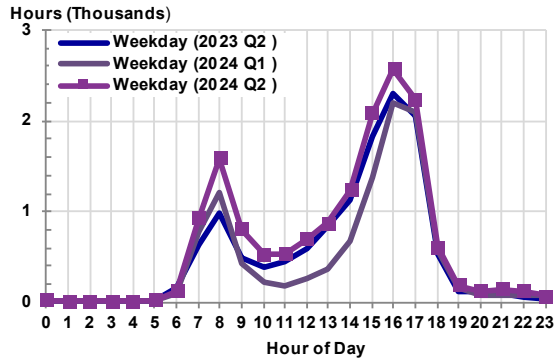
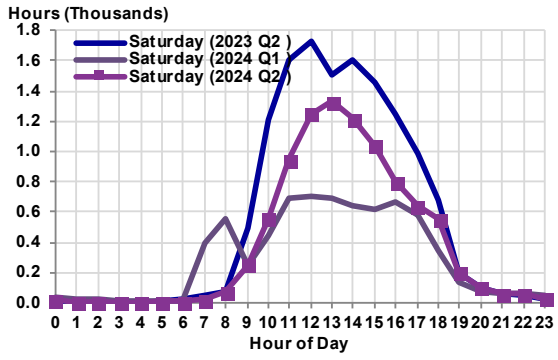
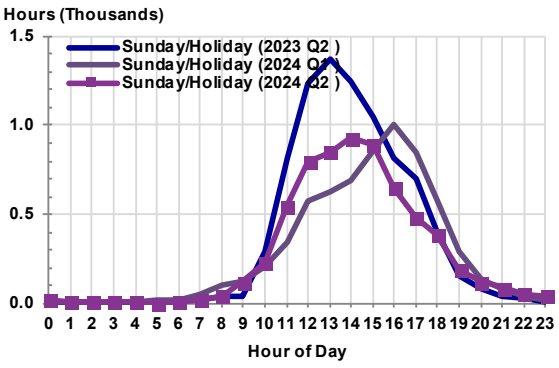
Notes:

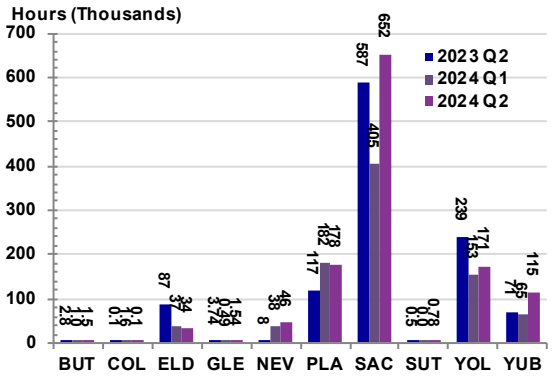
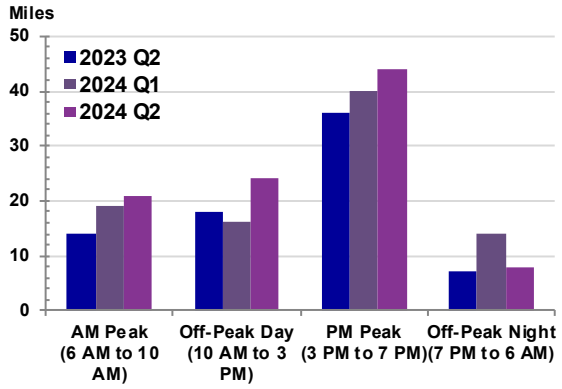
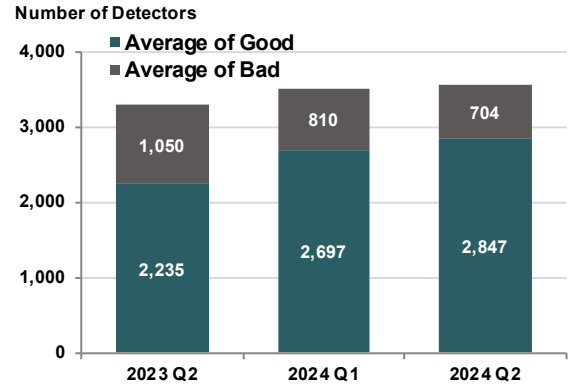
- For the table above, the quarterly delay calculation was based upon a 60-mph threshold, for the AM or PM weekday peak period.

- As shown in the table above, Route 51 has two of the top 10 bottlenecks instead of one when compared with the previous quarter and it is the most congested highway in the Sacramento region. Some of these delays may be caused by the implementation RTO for California State Department employees.
- Two of the top 10 bottlenecks are located on SR-65, which indicates that traffic demand to the City of Roseville is growing.
- In continued efforts to help relieve congestion and allow safe merging during high traffic demand periods, the California Department of Transportation (Caltrans) has updated the ramp metering operating hours on all major freeways in the Sacramento region. The metering hours will be based on traffic demand and will be activated 24/7, including holidays when minimum traffic thresholds are met. The ramp meters will be active every day including weekends and holidays.
- Caltrans District 3 has plans to construct High Occupancy Vehicle (HOV) lanes on SR-51 in Sacramento County, I-80 in Yolo County, and SR-65 in Placer County. These projects are expected to reduce delay at some of the nearby bottlenecks identified above.
- The HOV lanes on US-50 are currently under construction, and the HOV lanes on I-5 have been completed and are operational.
- Phase 1 of improvements at the SR 65/I-80 interchange have been completed. This phase included reconstructing the WB I-80 connector to NB SR-65 to increase capacity and includes reconstructing the Stanford Ranch/Galleria interchange improvements. The remainder of the SR-65 project is not currently funded. The planned HOV project on SR-51 is currently funding for PA&ED.
- District 3 is preparing to use the information in this report to prioritize funding for projects in the SHOPP mobility programs.

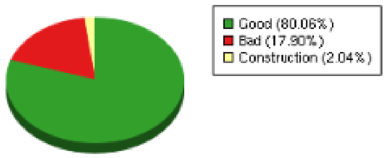
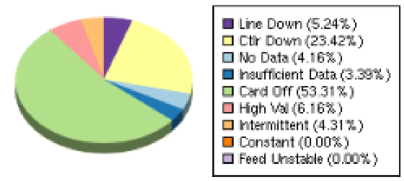
Quarterly Mobility Statistics

Measure	Graph	Percentage Change	
Vehicle Miles of Travel (VMT)		Over one year ago	Over last quarter
		7.7%	5.3%
Total Vehicle Hours of Delay (VHD) at 35 mph		Over one year ago	Over last quarter
		7.6%	35.8%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		Over one year ago	Over last quarter
		20.8%	41.2%
Total Vehicle Hours of Delay (VHD) at 60 mph		Over one year ago	Over last quarter
		9.9%	18.6%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		Over one year ago	Over last quarter
		17.4%	22%

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Saturday -20.3% Largest Magnitude Increase over one year ago Thursday 21.9%	Largest Magnitude Decrease over last quarter Sun/Hol -12.5% Largest Magnitude Increase over last quarter Thursday 27.8%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 6 AM -23.8% Largest Magnitude Weekday Increase over one year ago 8 AM 63%	Largest Magnitude Weekday Decrease over last quarter 4 AM -54.3% Largest Magnitude Weekday Increase over last quarter 3 PM 50.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 10 AM -53.9% Largest Magnitude Saturday Increase over one year ago 10 PM 20.7%	Largest Magnitude Saturday Decrease over last quarter 8 AM -87.8% Largest Magnitude Saturday Increase over last quarter 1 PM 92.5%
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 -37.7% Largest Magnitude Sun./Holiday Increase over one year ago 9 AM 210.9%	Largest Magnitude Sun./Holiday Decrease over last quarter 5 PM -42.9% Largest Magnitude Sun./Holiday Increase over last quarter 2 PM 33.5%

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
		YOL -28.1%	PLA -2.5%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		SAC 11.2%	SAC 61.2%
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
		–	Off-Peak Night -40.2%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 24%	Off-Peak Day 51.9%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		27%	6%
		Change in Bad over one year ago	Change in Bad over last quarter
		-33%	-13%

The figure below displays detector health data taken on April 1st, 2024. This figure illustrates the percentage of detector health per route to indicate which detectors are measuring the performance of State highways in District 3. About 20% of detectors are out of service. The number of good detectors had increased by 27% when compared with Q2/2023.

% Working	Suspected Errors
	

Status by Freeway

Freeway	# Det	% Good	% Bad	% Construction	Suspected Error								
					Line Down	Ctlr Down	No Data	Insufficient Data	Card Off	High Val	Intermittent	Constant	Feed Unstable
I5-N	243	85.6	14.4	1.2	0.0	3.3	1.2	0.8	8.2	0.0	0.8	0.0	0.0
I5-S	251	80.5	19.5	1.2	0.0	4.0	0.0	0.0	8.0	4.0	3.6	0.0	0.0
SR12-E	2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR12-W	2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR16-E	1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
SR16-W	2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
SR20-E	17	82.4	17.6	0.0	0.0	5.9	0.0	0.0	11.8	0.0	0.0	0.0	0.0
SR20-W	20	80.0	20.0	0.0	0.0	5.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0
SR28-E	3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR28-W	3	66.7	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0
SR45-N	3	66.7	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0
SR45-S	3	33.3	66.7	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0
SR49-N	4	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR49-S	4	75.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0
US50-E	494	75.1	24.9	4.9	3.2	10.3	0.0	0.0	10.3	1.0	0.0	0.0	0.0
US50-W	466	76.4	23.6	2.6	3.9	8.8	0.0	0.0	9.0	1.9	0.0	0.0	0.0
SR51-N	108	75.9	24.1	2.8	0.0	2.8	0.0	0.0	19.4	0.9	0.9	0.0	0.0
SR51-S	93	71.0	29.0	3.2	0.0	10.8	0.0	0.0	9.7	1.1	7.5	0.0	0.0
SR65-N	57	87.7	12.3	0.0	0.0	0.0	5.3	3.5	3.5	0.0	0.0	0.0	0.0
SR65-S	69	94.2	5.8	0.0	0.0	0.0	1.4	2.9	0.0	0.0	1.4	0.0	0.0
SR70-E	24	50.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
SR70-W	20	70.0	30.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0
I80-E	487	86.0	14.0	1.4	0.0	2.1	1.0	0.6	8.8	1.2	0.2	0.0	0.0
I80-W	470	83.4	16.6	2.8	0.0	3.0	0.9	0.9	10.2	1.3	0.4	0.0	0.0
SR89-N	12	83.3	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0
SR89-S	12	83.3	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0
SR99-N	284	91.9	8.1	0.0	0.0	0.0	1.1	1.8	3.5	0.4	1.4	0.0	0.0
SR99-S	308	86.0	14.0	1.9	0.0	0.0	2.6	1.3	9.4	0.3	0.3	0.0	0.0
SR113-N	13	84.6	15.4	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0
SR113-S	15	93.3	6.7	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0
SR149-N	2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
SR149-S	3	66.7	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0
SR160-N	8	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR160-S	7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR162-E	6	83.3	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0
SR162-W	4	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR193-E	2	50.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
SR193-W	1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
SR244-E	3	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
SR244-W	6	83.3	16.7	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0
SR267-E	2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR267-W	2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR275-W	3	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I505-N	7	85.7	14.3	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0
I505-S	5	60.0	40.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0
Totals	**3,551**	**81.7**	**18.3**	**2.1**	**1.0**	**4.3**	**0.8**	**0.6**	**9.7**	**1.1**	**0.8**	**0.0**	**0.0**

Based on the Congestion by Route table below, SR-51 in Sacramento County was the worst performing freeway in District 3 followed by I-5. The delay on SAC-51, SR-99, and US-50 have increased due to RTO Policy for California State Department employees. Yolo-80 is significantly impacted by the ongoing construction activities. It is anticipated that the performance will not improve until the construction is completed.

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2024 Q2-2023 Q2		Difference 2024 Q2-2024 Q1		Rank		
Route	County	2023 Q2	2024 Q1	2024 Q2	Absolute	Percentage	Absolute	Percentage	2023 Q2	2024 Q1	2024 Q2
SR51	Sacramento	168,704	155,319	218,208	49,504	29.3%	62,888	40.5%	3	1	1
I5	Sacramento	257,307	72,314	189,725	-67,582	-26.3%	117,411	162.4%	1	5	2
I80	Yolo	192,490	123,884	134,456	-58,035	-30.1%	10,572	8.5%	2	2	3
SR99	Sacramento	94,164	76,601	124,024	29,860	31.7%	47,423	61.9%	4	3	4
SR70	Yuba	71,382	64,578	114,677	43,294	60.7%	50,099	77.6%	6	7	5
I80	Placer	51,106	74,134	84,569	33,463	65.5%	10,435	14.1%	8	4	6
SR65	Placer	64,491	69,558	80,641	16,150	25.0%	11,083	15.9%	7	6	7
I80	Sacramento	32,540	35,635	70,434	37,894	116.5%	34,799	97.7%	10	11	8
US50	Sacramento	31,751	63,302	46,209	14,457	45.5%	-17,094	-27.0%	11	8	9
I80	Nevada	5,070	35,467	43,928	38,858	766.4%	8,460	23.9%	12	12	10
US50	El Dorado	86,335	37,056	32,926	-53,410	-61.9%	-4,130	-11.1%	5	10	11
US50	Yolo	42,173	24,749	31,204	134,533	319.0%	6,455	26.1%	9	13	12
SR89	Placer	168	38,045	7,448	7,280	4325.4%	-30,597	-80.4%	24	9	13
I5	Yolo	3,726	4,585	5,624	1,897	50.9%	1,039	22.6%	13	14	14
SR267	Placer	56	33	4,525	4,469	7994.6%	4,492	13653.5%	27	31	15
SR160	Sacramento	1,782	730	2,902	1,120	62.9%	2,173	297.6%	17	19	16
SR99	Butte	2,780	863	1,314	-1,466	-52.7%	451	52.3%	15	17	17
SR20	Nevada	2,223	741	1,264	-959	-43.1%	524	70.7%	16	18	18
SR162	Glenn	3,520	373	990	-2,530	-71.9%	617	165.5%	14	22	19
SR89	Nevada	0	2,030	809	809		-1,221	-60.2%		15	20
SR99	Sutter	447	31	749	302	67.6%	718	2293.0%	20	32	21
SR244	Sacramento	0	480	741	741		261	54.5%		21	22
SR28	Placer	1,368	586	667	-702	-51.3%	81	13.8%	18	20	23
SR89	El Dorado	284	225	654	371	130.7%	429	190.8%	22	24	24
I5	Glenn	217	50	536	320	147.7%	486	966.2%	23	28	25
SR12	Sacramento	878	241	494	-384	-43.7%	253	104.8%	19	23	26
SR149	Butte	0	69	151	151		82	119.5%		26	27
I5	Colusa	10	1,563	88	78	823.2%	-1,476	-94.4%	29	16	28
SR275	Yolo	0	2	81	81	40350.0%	79	4658.8%	36	35	29
SR16	Yolo	0	48	57	57		9	19.2%		29	30
SR70	Butte	0	12	36	36		24	208.6%		33	31
SR20	Colusa	60	38	26	-34	-55.9%	-12	-30.3%	26	30	32
SR20	Sutter	47	1	24	-23	-48.5%	23	2310.0%	28	36	33
SR113	Yolo	136	103	18	-118	-86.9%	-85	-82.7%	25	25	34
SR45	Glenn	1	67	14	13	1885.7%	-53	-79.3%	34	27	35
SR162	Butte	2	2	6	4	150.0%	4	172.7%	33	34	36
SR70	Sutter	8	0	2	-6	-73.2%	2	1000.0%	30	38	37
SR45	Colusa	7	0	2	-5	-73.6%	2		31		38
SR20	Yuba	4	0	1	-3	-70.3%	1		32		39
SR113	Sutter	1	1	1	0	50.0%	0	-10.0%	35	36	40
I505	Yolo	0	0	0	0	-100.0%	0		37		
SR49	Nevada	373	0	0	-373	-100.0%	0		21		
TOTALS		**1,115,610**	**883,515**	**1,200,222**	**84,612**	**7.6%**	**316,706**	**35.8%**			

As indicated by the table above, the Total Delay for all monitored routes has increased to *1,200,222* hours, an increase of *35.8%* when compared with the previous quarter. Overall, congestion and delay have decreased, and travel demand (VMT) was about the same when compared to the previous quarter.

Most of the congested routes in the Sacramento region are serving traffic to Downtown Sacramento, which is due to its travel demand associated with Sacramento region's high population, employment, and educational centers. As identified on pages 2 and 3 of this report, Caltrans is continuing the process of implementing HOV lanes and 24/7 ramp meter operations for Sacramento's freeway system. HOV lane projects on SR-51, I-5, I-80, and US-50 are planned or under construction to mitigate congestion on these routes. Further congestion mitigation can be achieved by allowing more employees to ***Work from Home*** and increasing mode shift away from single occupancy vehicles to higher occupancy vehicles such as carpooling, vanpooling, and higher utilization of mass transit options. District 3 will continue to explore the best possible ways to reduce delay in the impacted freeways and highways.