District 03
Mobility Performance Report

2022 Third Quarter

DEPARTMENT OF TRANSPORTATION

October 28, 2022
: Office of Freeway Operations

2022 Third 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 takes place in the urbanized areas of Sacramento, Yolo and Placer counties.

The Mobility Performance Report (MPR) quarterly analysis compares information from this quarter with information from 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 area freeways from the Caltrans Performance Measurement System (PeMS) every day of the quarter, twenty–four hours a day, where congestion is regularly experienced. 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 delay at 60 mph represents all congestion, both light and heavy. These thresholds are set by Caltrans and are based upon traffic engineering experience and District 3 Office of Freeway Operations input.

FINDINGS

In the third quarter of 2022, there is an increase in delay due to the reopening of offices. The total delay on the freeways in District 3 equaled *0.96* million vehicle hours of delay (VHD) below the 35-mph speed threshold and *2.8* million VHD below 60-mph threshold. The average delay experienced on weekdays in this quarter was approximately *12 thousand* of VHD below 35-mph, and *37 thousand* of VHD below 60-mph.

Vehicle Miles of Travel (VMT) decreased by 3% with a total of *2.61* billion miles when compared to that of the previous quarter (*2.69* billion miles). The VHD below the 60-mph speed threshold increased by 14.2% during the same quarter. The reduction in VMT conjunction with increase in Delay indicates that traffic demand was intensified during commute hours (PM). See graphs on page 4 and 5 for details.

Top Ten Bottlenecks for Quarter 3

County	Fwy	Name	Type	Shift	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (mins)
YOLO	I80-E	80EB at Mace Blvd	ML	PM	74.90	2.714	38.55	-121.69	59	2.30	26,767	7,845
SAC	SR51-S	EB Exposition Bl	ML	PM	3.33	3.326	38.60	-121.44	56	1.67	25,504	9,160
YOLO	I80-E	W of Webster UC	ML	PM	77.97	5.779	38.56	-121.64	46	3.51	22,520	4,725
SAC	US50-E	16th St	ML	PM	4.72	L1.566	38.56	-121.49	63	1.00	22,295	8,900
ED	US50-E	Midway Rd (Pioneer Trail)	ML	PM	107.96	79.801	38.95	-119.95	63	2.40	21,683	18,895
YOLO	I80-W	80WB at Enterprise	ML	AM	81.30	9.110	38.57	-121.58	29	2.28	21,591	4,570
SAC	SR99-S	99SB at Cosumnes	ML	PM	290.68	16.230	38.46	-121.41	62	1.51	20,112	10,575
SUT	SR70-E	70EB Yuba River Br	ML	PM	20.15	13.524	39.13	-121.58	40	2.06	19,032	4,870
PLA	SR65-S	Pleasant Grove Blvd	ML	PM	66.91	R7.189	38.79	-121.29	62	1.37	17,685	8,875
PLA	I80-W	EB Douglas Blvd	ML	PM	103.38	1.876	38.74	-121.27	63	1.16	17,445	8,445

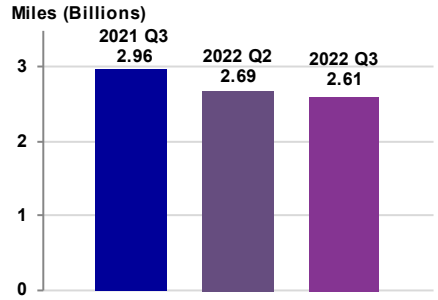
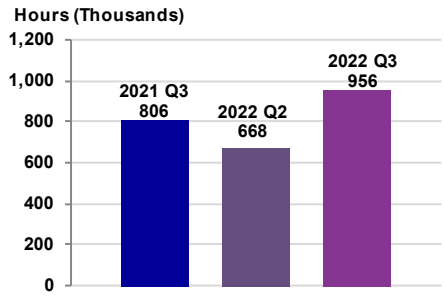
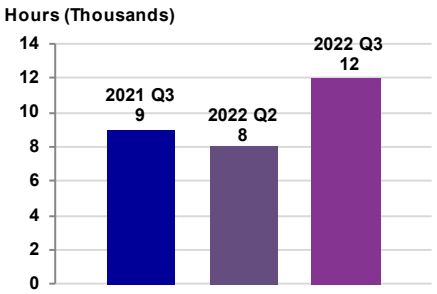
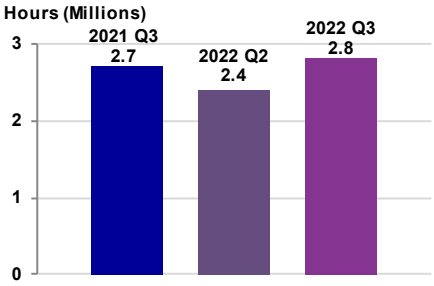
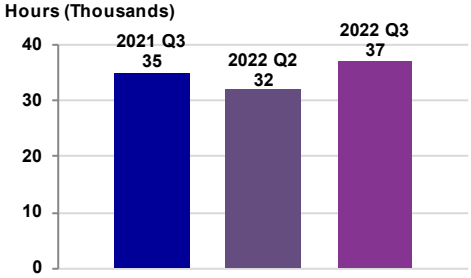
Notes:

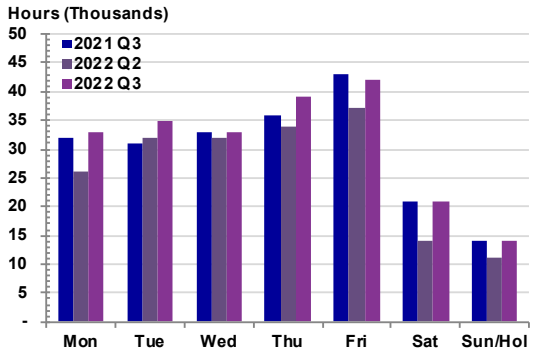
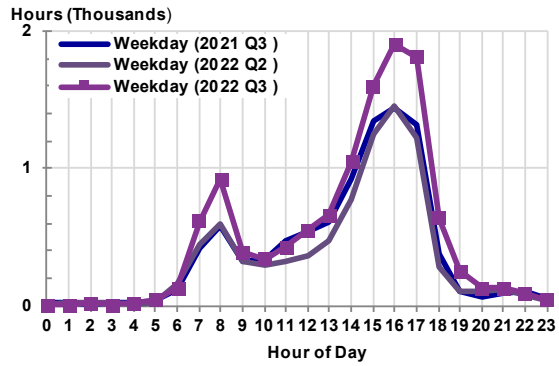
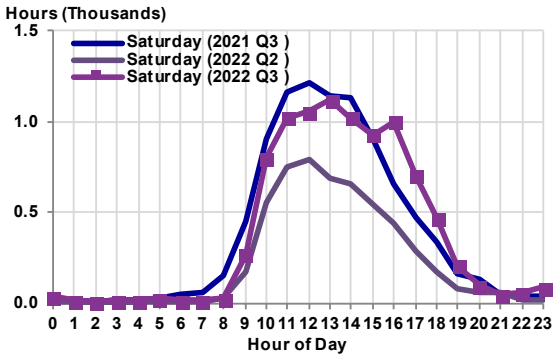
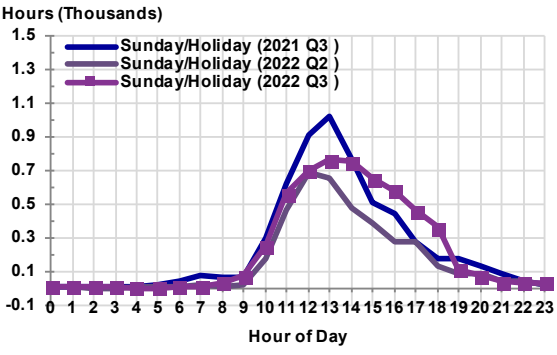
- For the table above, the quarterly delay calculation was based upon a 60-mph threshold, for the a.m. or p.m. weekday peak period.
- Three of the top ten bottlenecks are located on I 80/Yolo Causeway, it is the most congested corridor in Sacramento region.
- In continued efforts to help relieve congestion and allow safe merging during high traffic demand periods, the California Department of Transportation (Caltrans) has updated the ramp metering operation hours on all major freeways in Sacramento region. The metering hours will be based on traffic demand and will be activated 24/7, including holidays when

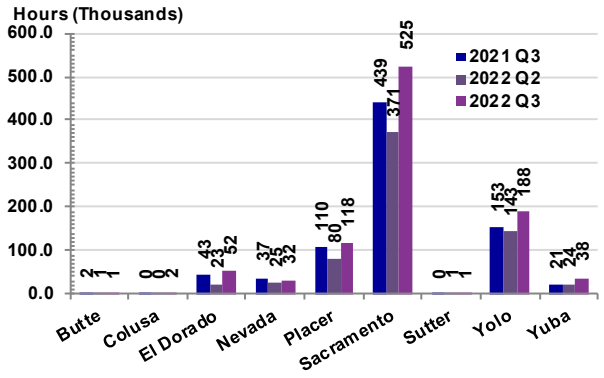
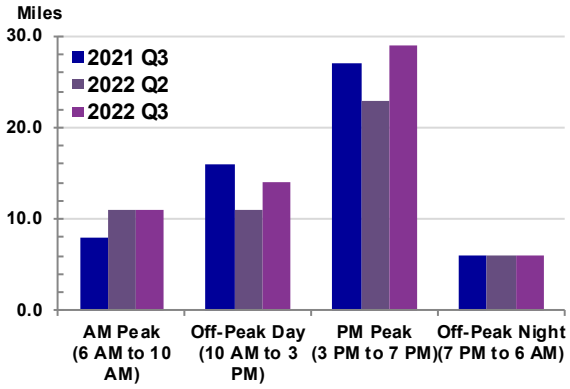
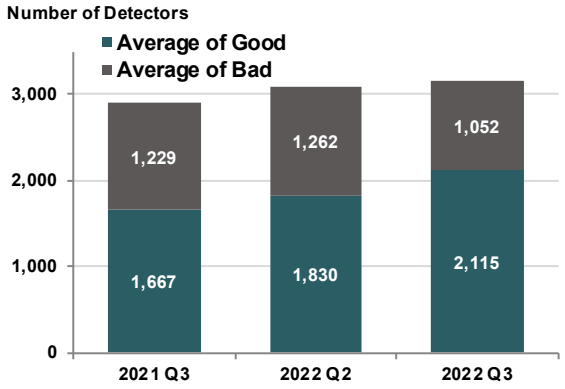
minimum traffic thresholds are met. The ramp meters will be active every day including weekends and holidays.

- 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 lane projects on I-5 and US-50 are under construction right now.
- The project on SR 65/I-80 interchange is completed for Phase 1. This phase included reconstructing the WB I-80 connector to NB SR-65 to increase capacity and includes reconstructing the Stanford Ranch/Galleria IC 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.
- EB-50 at Pioneer Trail (South Lake Tahoe) was experiencing seasonal tourist congestion during this quarter. No feasible mitigation is identified at this time.
- Our District 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 -12.1%	Over last quarter -3%
Total Vehicle Hours of Delay (VHD) at 35 mph		Over one year ago 18.5%	Over last quarter 43%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		Over one year ago 25.6%	Over last quarter 38.8%
Total Vehicle Hours of Delay (VHD) at 60 mph		Over one year ago 3.5%	Over last quarter 17.5%
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		Over one year ago 4.7%	Over last quarter 14.2%

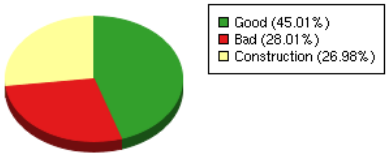
Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Sun/Hol -3.8%	Largest Magnitude Decrease over last quarter _
		Largest Magnitude Increase over one year ago Tuesday 14.8%	Largest Magnitude Increase over last quarter Monday 27.9%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 11 AM -7.9%	Largest Magnitude Weekday Decrease over last quarter 6 AM -15.8%
		Largest Magnitude Weekday Increase over one year ago 5 PM 37%	Largest Magnitude Weekday Increase over last quarter 5 PM 48.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 9 AM -40%	Largest Magnitude Saturday Decrease over last quarter 9 PM -10.7%
		Largest Magnitude Saturday Increase over one year ago 4 PM 50.3%	Largest Magnitude Saturday Increase over last quarter 4 PM 125.1%
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 -24.9%	Largest Magnitude Sun./Holiday Decrease over last quarter 7 AM -44.2%
		Largest Magnitude Sun./Holiday Increase over one year ago 5 PM 74.7%	Largest Magnitude Sun./Holiday Increase over last quarter 4 PM 116.5%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago Nevada -15.8%	Largest Magnitude Decrease over last quarter Sutter -37.9%
		Largest Magnitude Increase over one year ago Sacramento 19.5%	Largest Magnitude Increase over last quarter Sacramento 41.4%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago Off-Peak Day -9.7%	Largest Magnitude Decrease over last quarter _
		Largest Magnitude Increase over one year ago AM Peak 35%	Largest Magnitude Increase over last quarter PM Peak 23.8%
Average Number of Good and Bad Detectors		Change in Good over one year ago 27%	Change in Good over last quarter 16%
		Change in Bad over one year ago -14%	Change in Bad over last quarter -17%

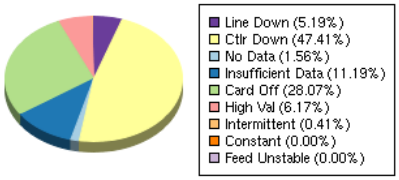
The Figure below is a screenshot displaying detector health data taken on 07/01/2022, at the beginning of Q3 2022. This Figure illustrates the percentage of detector health per route to determine which detectors are measuring the performance of our state highways in District 3. Due to construction projects on I-5 (HOV lane is under construction from US 50 connector to City of Elk Grove), I-80 (RHMA Pavement Rehabilitation Project), US-50 (Multimodal Corridor Enhancement and Rehabilitation Project), and SR-99 (RHMA Overlay), about half of detectors

are out of service. Caltrans will not be able to see much improvement of detectors health until construction is completed on the main corridors within the Sacramento Metro area.

% 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	211	42.2	57.8	60.2	4.3	22.3	1.4	2.4	24.6	2.8	0.0	0.0	0.0
I5-S	204	50.0	50.0	50.5	4.4	21.1	1.5	2.5	17.6	2.9	0.0	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
SR20-E	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
SR20-W	8	87.5	12.5	0.0	0.0	0.0	0.0	0.0	12.5	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	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR45-N	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
SR45-S	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
SR49-N	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
SR49-S	1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
US50-E	440	60.2	39.8	46.1	5.0	20.2	0.2	2.0	6.4	5.9	0.0	0.0	0.0
US50-W	426	48.1	51.9	47.9	5.4	26.5	0.0	2.1	12.7	4.5	0.7	0.0	0.0
SR51-N	106	73.6	26.4	5.7	0.0	5.7	0.0	0.0	16.0	4.7	0.0	0.0	0.0
SR51-S	96	82.3	17.7	6.3	0.0	8.3	0.0	0.0	7.3	2.1	0.0	0.0	0.0
SR65-N	55	87.3	12.7	38.2	0.0	3.6	0.0	7.3	1.8	0.0	0.0	0.0	0.0
SR65-S	68	83.8	16.2	50.0	0.0	2.9	0.0	2.9	8.8	0.0	1.5	0.0	0.0
SR70-E	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
SR70-W	18	38.9	61.1	22.2	0.0	0.0	0.0	0.0	61.1	0.0	0.0	0.0	0.0
I80-E	452	59.3	40.7	35.6	0.0	25.4	1.3	8.4	5.3	0.2	0.0	0.0	0.0
I80-W	423	52.0	48.0	34.8	0.0	23.2	1.2	10.2	12.5	0.9	0.0	0.0	0.0
SR89-N	5	100.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR89-S	5	100.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR99-N	274	84.3	15.7	21.5	0.0	3.3	0.4	6.2	4.7	0.7	0.4	0.0	0.0
SR99-S	269	79.9	20.1	28.6	0.0	8.9	0.0	1.5	8.9	0.7	0.0	0.0	0.0
SR113-N	10	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR113-S	20	45.0	55.0	50.0	0.0	50.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
SR160-N	9	44.4	55.6	0.0	0.0	11.1	0.0	0.0	22.2	22.2	0.0	0.0	0.0
SR160-S	8	12.5	87.5	0.0	0.0	37.5	0.0	0.0	50.0	0.0	0.0	0.0	0.0
SR162-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
SR162-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
SR267-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
SR267-W	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
SR275-W	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
I505-N	8	25.0	75.0	75.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I505-S	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
Totals	**3,167**	**61.6**	**38.4**	**36.9**	**2.0**	**18.2**	**0.6**	**4.3**	**10.8**	**2.4**	**0.2**	**0.0**	**0.0**

Overall, congestion and delay have increased due to the beginning of the summer season. Travel demand was decreased by 3% and delay was increased by 43% when compared to the previous quarter. See table below for reference.

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
I5	Sacramento	154,672	67,319	172,103	17,431	11.3%	104,784	155.7%	1	4	1
I80	Yolo	133,157	118,900	161,660	28,503	21.4%	42,760	36.0%	2	1	2
SR99	Sacramento	103,942	108,532	119,910	15,968	15.4%	11,378	10.5%	4	3	3
SR51	Sacramento	108,688	116,397	116,612	7,924	7.3%	215	0.2%	3	2	4
US50	Sacramento	46,700	53,854	63,260	16,560	35.5%	9,406	17.5%	6	6	5
SR65	Placer	66,054	57,738	62,293	-3,762	-5.7%	4,555	7.9%	5	5	6
I80	Sacramento	20,543	22,429	51,182	30,639	149.1%	28,753	128.2%	11	9	7
I80	Placer	40,274	20,712	50,936	10,663	26.5%	30,224	145.9%	8	11	8
US50	El Dorado	42,759	22,301	45,263	2,504	5.9%	22,961	103.0%	7	10	9
SR20	Yuba	0	85	36,399	36,399	36399300.0%	36,315	42773.3%	30	20	10
I80	Nevada	36,678	25,312	31,505	-5,173	-14.1%	6,193	24.5%	9	7	11
US50	Yolo	12,762	19,780	20,460	7,699	60.3%	680	3.4%	12	12	12
SR89	El Dorado	329	818	6,329	6,000	1823.6%	5,511	673.9%	20	18	13
I5	Yolo	6,618	4,127	5,777	-842	-12.7%	1,649	40.0%	13	13	14
SR28	Placer	3,129	440	3,816	687	21.9%	3,376	767.0%	15	19	15
SR12	Sacramento	5,875	3,046	1,763	-4,112	-70.0%	-1,282	-42.1%	14	14	16
SR89	Placer	556	834	1,134	579	104.1%	300	35.9%	18	17	17
SR20	Colusa	446	37	1,111	665	149.2%	1,074	2943.6%	19	25	18
SR70	Yuba	20,996	23,710	1,080	-19,916	-94.9%	-22,630	-95.4%	10	8	19
I5	Colusa	0	0	762	762		762				20
SR160	Sacramento	144	35	726	581	402.8%	691	1991.1%	25	26	21
SR99	Butte	1,750	848	618	-1,132	-64.7%	-231	-27.2%	16	16	22
SR113	Yolo	160	72	486	326	203.2%	414	579.3%	24	21	23
SR99	Sutter	171	1,033	384	213	124.4%	-649	-62.8%	22	15	24
SR20	Sutter	0	54	311	311		257	473.4%		23	25
I505	Yuba	0	0	110	110		110				26
SR267	Placer	30	57	68	38	128.1%	12	20.5%	26	22	27
SR49	Nevada	609	2	31	-578	-94.9%	29	1440.0%	17	29	28
I505	Yolo	29	27	27	-2	-6.8%	0	0.4%	27	27	29
SR45	Colusa	3	2	21	18	635.7%	19	930.0%	28	29	30
SR70	Sutter	0	39	4	4	1233.3%	-35	-89.6%	29	24	31
SR162	Butte	165	1	3	-162	-98.4%	1	100.0%	23	31	32
SR113	Sutter	0	1	1	1		0	-36.4%		32	33
SR275	Yolo	0	0	0	0		0				34
SR20	Nevada	173	24	0	-173	-100.0%	-24	-100.0%	21	28	
TOTALS		**807,411**	**668,565**	**956,142**	**148,730**	**18.4%**	**287,577**	**43.0%**			

As indicated by the table above, the Total Delay for all monitored routes has increased to *287,577* hours, an increase of *43.0%* when compared with previous quarter.

Based on the total delay by route, Sacramento I-5 was the worst performing freeway in District 3 due to its bottleneck locations. Most of the congested routes in Sacramento region are serving traffic to Downtown Sacramento, which is due to its travel demand associated with Sacramento Regional 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 ***Work at 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. The District will continue to explore the best possible ways to reduce delay in the impacted areas of District 3.