

District 08 Mobility Performance Report

2023 Quarter Two

DEPARTMENT OF TRANSPORTATION

September 14, 2023
DIVISION OF OPERATIONS
TMS SUPPORT

District 08 Mobility Performance Report

2023 Quarter Two

EXECUTIVE SUMMARY

Overview

Caltrans District 8 covers approximately 28,650 square miles of land, making it the largest district in California. District 8 consists of two counties: San Bernardino and Riverside. Both counties are in Southern California and part of the Inland Empire. Riverside County has an estimated population of 2.5 million residents while San Bernardino County is estimated at 2.2 million residents. With a total of 4.7 million residents, District 8 comprises of twelve percent of California's total population.

The quarterly Mobility Performance Report compares the data from the current quarter with over a year ago as well as the previous quarter, for the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Delay by County and Route
- Detector Health
- Bottleneck Locations

Vehicle Detector Stations installed on our freeways are strategically placed throughout the district and are collecting data. The MPR uses the data collected from these stations through Caltrans Performance Measurement System (PeMS) to produce this report and conduct traffic studies. This report 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 35-mph threshold represents severe congestion, while delay at 60 mph represents all congestion. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

Vehicle Miles Traveled (VMT) in District 8 during the second quarter of 2023 was 4.83 billion miles, which was a 9.5 percent decrease when compared to VMT from a year ago and a 1.8 percent increase from the previous quarter.

In the second quarter of 2023, at the 35mph speed threshold, Riverside County exhibited 2.25 million vehicle hours of delay followed by San Bernardino County at 1.39 million. Total delay in District 8 equaled 3.6 million VHD for the 35mph speed threshold. This was a 12 percent increase from the previous quarter, and a 12.5 percent increase when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the second quarter of 2023, total delay equaled 9 million VHD, which was a increase in delay by 7.8 percent from last quarter and a 7.3 percent increase in delay for the same quarter over a year ago.

The busiest day of the week as far as congestion for the second quarter of 2023 was Friday with 135,000 hours of delay for speed under 60 mph followed by Thursday at 121,000 hours of delay.

Top Ten Bottlenecks for the Second Quarter of 2023

Rank	County	Location Name	Shift	Fwy	Abs PM	Prefix	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (Hours)
1	Riverside	Winchester Road	PM	I15-N	61.32	-	6.8	33.52	-117.16	64	6.42	236,907.50	272.75
2	Riverside	Pigeon Pass	PM	SR60-E	64.15	-	24.033	33.94	-117.10	64	4.58	107,482.80	241.33
3	Riverside	Rte 71/91	AM	SR91-W	39.86	R	2.5432	33.88	-117.63	52	3.51	113,707.20	112.50
4	San Bernardino	Philadelphia Ave	PM	I15-S	106.76		0	34.03	-117.55	44	6.55	100,661.20	136.83
5	San Bernardino	4th Street	PM	I15-N	162.99	-	55.46	34.70	-117.21	59	2.16	58,010.70	189.75
6	San Bernardino	Haven	PM	I10-E	54.99	-	8.22	34.07	-117.57	64	2.44	50,498.60	201.75
7	San Bernardino	Fort Irwin Rd	AM	I15-S	188.03	-	80.155	34.90	-116.92	54	3.42	43,528.40	137.17
8	Riverside	Main	PM	SR91-E	43.95	-	6.604	33.88	-117.56	63	1.68	43,026.60	191.67
9	Riverside	El Cerrito Rd	PM	I15-S	92.16	-	37.68	33.83	-117.53	63	2.31	42,568.90	152.83
10	San Bernardino	Oakie Flats	PM	I15-N	179.79	-	72.254	34.89	-117.05	53	2.55	40,680.80	134.50

PROJECT STATUS

Some of the following District 8 projects which are separated by county are currently in construction for the year of 2023. These projects will relieve congestion in District 8 once complete. However, during construction there might be an increase in delay for off-peak periods due to lane closures.

Riverside County:

RIV – Rte. 215: Location Moreno Valley from Alessandro Blvd overcrossing to Eucalyptus Ave Overcrossing, EA:1K4604

Postmile: R36.30 to 37.20, Construct NB and SB Auxiliary Lanes

RIV – Rte. 74: Location Lake Elsinore from RIV County Line to Monte Vista St EA: 1C8504, PM: 0.00 to 5.80 – Widen Existing Lanes to provide 12’ Lanes

RIV – Rte 91: Location SR-91 at McKinley Ave City of Corona EA:1J990

PM: R9.20 to 9.20 - Reconstruct SR-91/McKinley interchange consisting of retaining wall, drainage, ramp metering and signal placement

RIV – Rte 215: Location Placentia Ave, EA:0F3214

PM: R27.9/32.80 - Interstate 215 at Placentia Interchange Improvement

RIV – Rte 15: Location Between Cajalco Rd and Weirick Rd, EA: 1M750

PM: R35.70 to 37.00 – Add Auxiliary Lanes

RIV – Rte 15: Location Main Street City of Lake Elsinore EA: 1G720

PM: R20.50/21.50 – Ramp Widening and Construct Retaining Wall

RIV – Rte. 15: Location - City of Lake Elsinore on I-15 From 1.6 mile south of to 0.4-mile North of Railroad Canyon Rd, EA: 0A4414

Postmile 17.60 to 19.60 - Freeway and Bridge widening, JPCP, HMA, Retaining Walls, Ramp Modifications, Local Street Improvements.

RIV – Rte. 15: Location – Murrieta from 0.3 miles south of to 0.6 miles north of California Oaks Ave. Undercrossing, EA: 0A4904

Postmile 10.30 to 10.90 – Bridge widening, Traffic and Drainage Improvements.

RIV - Rte 15: Location - Interstate 15/Cajalco Road Interchange, EA: 0J6104

Postmile 36.40 to 37.60 - Interchange Improvements & Reconstruction

RIV- Rte 60: Location – City of Beaumont, Gilman Springs Road to 1.37 miles west of Jack Rabbit Trail EA: 0N69U4

Postmile 22.10 to 26.60 – Construct a Truck Climbing Lane and Truck Descending Lane

San Bernardino County:

SBD – Rte 215: Location – Colton and Washington Overcrossing EA: 1F7304
Postmile 2.70 to 2.70, Replace Concrete Bridge

SBD – Rte 10: Location – LA/SBD county line to 0.2 miles west of Cherry EA: 0C2514
Postmile 0.00 to 13.20, Widen Freeway and add Express Lanes

SBD – Rte 210: Location – Highland Ave to San Bernardino Ave EA: 0C70U4
Postmile 25.00 to 33.20, Widen Freeway add one lane in each direction.

SBD – Rte 60: Locations – Central Avenue EA: 0C8704
Postmile 2.08 to 2.80, Central Avenue Ramp Improvement

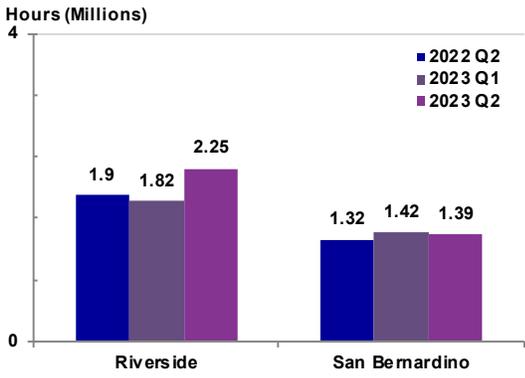
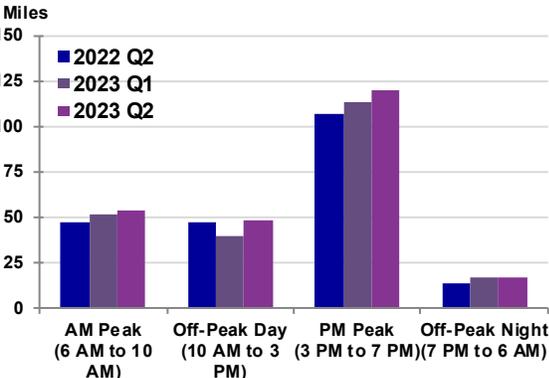
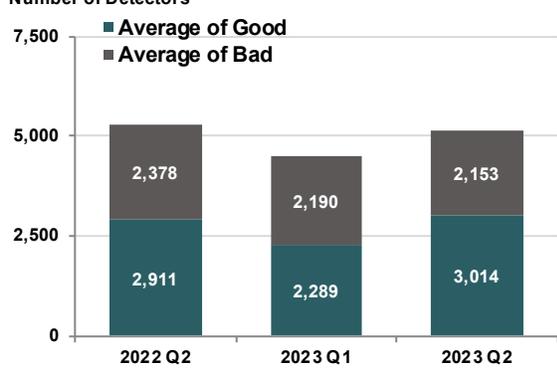
SBD – Rte 60: Location – Near Chino and Various Locations from 0.1 mile west of Pipeline Ave OC to 0.1 Mile East of Benson Ave. EA: 0F0304
Postmile 0.07 to 3.00, Bridge Replacement, Pipeline Ave, Monte Vista Ave, Benson Ave.

SBD – Rte 10: Location – Alabama street to 0.2 Miles East of County Line Road, EA 384234
Postmile: 29.40 to 39.20, Install Fiber Optic System and Modify Electrical System

Quarterly Mobility Statistics

Measure	Graph	Percentage Change							
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2022</td><td>5.34</td></tr> <tr><td>2023</td><td>4.83</td></tr> </table>	Year	Q2	2022	5.34	2023	4.83	Over one year ago	Over last quarter
		Year	Q2						
		2022	5.34						
2023	4.83								
-9.5%	1.8%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2022</td><td>3.2</td></tr> <tr><td>2023</td><td>3.6</td></tr> </table>	Year	Q2	2022	3.2	2023	3.6	Over one year ago	Over last quarter
		Year	Q2						
		2022	3.2						
2023	3.6								
12.5%	12%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2022</td><td>41</td></tr> <tr><td>2023</td><td>46</td></tr> </table>	Year	Q2	2022	41	2023	46	Over one year ago	Over last quarter
		Year	Q2						
		2022	41						
2023	46								
11.3%	5.2%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2022</td><td>8.4</td></tr> <tr><td>2023</td><td>9</td></tr> </table>	Year	Q2	2022	8.4	2023	9	Over one year ago	Over last quarter
		Year	Q2						
		2022	8.4						
2023	9								
7.3%	7.8%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q2</th></tr> <tr><td>2022</td><td>108</td></tr> <tr><td>2023</td><td>115</td></tr> </table>	Year	Q2	2022	108	2023	115	Over one year ago	Over last quarter
		Year	Q2						
		2022	108						
2023	115								
6.1%	3%								

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
		-	Friday -8.1%
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
		11 AM -8.6%	6 PM -11.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago	Largest Magnitude Saturday Decrease over last quarter
		8 AM -38.3%	6 PM -10%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago	Largest Magnitude Sun./Holiday Decrease over last quarter
		10 PM -48%	6 PM -29.2%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Thursday 8.8%	Wednesday 11.7%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		3 PM 13.4%	3 PM 19.4%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		3 PM 30.5%	2 PM 65.9%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		2 PM 44.8%	1 PM 75.2%

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
		-	San Bernardino -2.3% 
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Riverside 17.9% 	Riverside 23.1% 
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 -0.9% 
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak 11.9% 	Off-Peak Day 22.1% 
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		4% 	32% 
		Change in Bad over one year ago	Change in Bad over last quarter
		-9% 	-2% 

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2023 Q2-2022 Q2		Difference 2023 Q2-2023 Q1		Rank		
		2022 Q2	2023 Q1	2023 Q2	Absolute	Percentage	Absolute	Percentage	2022 Q2	2023 Q1	2023 Q2
I15	Riverside	539742	444747	711693.7	171951.7	32%	266,947	60%	3	4	1
I15	San Bernardino	576996.9	762091.6	710889.9	133893	23%	(51,202)	-7%	2	1	2
SR91	Riverside	426988.5	464800.3	553200	126211.5	30%	88,400	19%	4	3	3
I215	Riverside	580988.9	553101.8	509837.1	-71151.8	-12%	(43,265)	-8%	1	2	4
I10	San Bernardino	408368	431432.9	460032.9	51664.9	13%	28,600	7%	5	5	5
SR60	Riverside	279544.9	304353.8	404496.8	124951.9	45%	100,143	33%	6	6	6
I210	San Bernardino	206727.2	179595.8	173205.4	-33521.8	-16%	(6,390)	-4%	7	7	7
I10	Riverside	77110.3	56944.9	65977.4	-11132.9	-14%	9,032	16%	8	8	8
SR60	San Bernardino	55936.9	28767.2	42203.5	-13733.4	-25%	13,436	47%	10	9	9
SR71	San Bernardino	150.3	345.5	452.9	302.6	201%	107	31%	11	11	10
I215	San Bernardino	76012.1	17580.9	0	-76012.1	-100%	(17,581)	-100%	9	10	11
SR71	Riverside	0	0	0	0		-		12	12	12
TOTALS		3,228,566	3,243,762	3,631,990	403,424	12.5%	388,228	12.0%			

The Congestion by Route table shows that congestion in District 8 has increased by 12 percent from the previous quarter and 12.5 percent from one year ago.

SR-71 detector stations are currently under construction and are currently offline, which is why there is little to no vehicle hours of delay shown.