

District 08 Mobility Performance Report

2023 Quarter One

DEPARTMENT OF TRANSPORTATION

May 22, 2023
DIVISION OF OPERATIONS
TMS SUPPORT

District 08 Mobility Performance Report

2023 Quarter One

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 first quarter of 2023 was 4.74 billion miles, which was a 6.5 percent decrease when compared to VMT from a year ago and a 10.4 percent decrease from the previous quarter.

In the first quarter of 2023, at the 35mph speed threshold, Riverside County exhibited 1.82 million vehicle hours of delay followed by San Bernardino County at 1.42 million. Total delay in District 8 equaled 3.2 million VHD for the 35mph speed threshold. This was a 5.7 percent decrease from the previous quarter, and a 3.3 percent increase when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the first quarter of 2023, total delay equaled 8.4 million VHD, which was a decrease in delay by 4.4 percent from last quarter and a 1.2 percent increase in delay for the same quarter over a year ago.

The busiest day of the week as far as congestion for the first quarter of 2023 was Friday with 147,000 hours of delay for speed under 60 mph followed by Thursday at 115,000 hours of delay.

Top Ten Bottlenecks for the First 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	63	4.99	172,265.70	252.67
2	Riverside	Pigeon Pass	PM	SR60-E	64.15	-	24.033	33.94	-117.10	56	4.96	85,050.80	197.50
3	Riverside	RTE 71/91	AM	SR91-W	39.29	R	1.975	33.88	-117.64	45	2.96	58,602.50	105.58
4	San Bernardino	4th Street	PM	I15-N	162.99	-	55.46	34.70	-117.21	64	1.58	57,311.60	213.67
5	San Bernardino	Philadelphia St	PM	I15-S	106.76	-	0	34.03	-117.55	28	6.44	53,366.90	74.25
6	San Bernardino	Haven	PM	I10-E	54.99	-	8.22	34.07	-117.57	62	2.24	43,572.80	150.25
7	Riverside	Van Buren Blvd	PM	I215-S	17.23	-	25.656	33.78	-117.21	62	2.75	41,185.20	149.33
8	Riverside	Harley Knox Blvd	AM	I215-N	15.74	-	24.167	33.76	-117.19	58	3.13	40,596.00	122.67
9	Riverside	Pierce	PM	SR91-W	48.27	-	10.836	33.90	-117.49	61	1.93	38,462.00	202.17
10	Riverside	Pierce	AM	SR91-W	48.27	-	10.836	33.90	-117.49	58	1.99	36,477.30	179.00

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 Express Lanes (Phase 1)

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>Quarter</th><th>VMT (Billions)</th></tr> <tr><td>2022 Q1</td><td>5.08</td></tr> <tr><td>2022 Q4</td><td>5.3</td></tr> <tr><td>2023 Q1</td><td>4.74</td></tr> </table>	Quarter	VMT (Billions)	2022 Q1	5.08	2022 Q4	5.3	2023 Q1	4.74	Over one year ago	Over last quarter
		Quarter	VMT (Billions)								
		2022 Q1	5.08								
2022 Q4	5.3										
2023 Q1	4.74										
-6.5%	-10.4%										
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Millions)</th></tr> <tr><td>2022 Q1</td><td>3.1</td></tr> <tr><td>2022 Q4</td><td>3.4</td></tr> <tr><td>2023 Q1</td><td>3.2</td></tr> </table>	Quarter	VHD (Millions)	2022 Q1	3.1	2022 Q4	3.4	2023 Q1	3.2	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
		2022 Q1	3.1								
2022 Q4	3.4										
2023 Q1	3.2										
3.3%	-5.7%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2022 Q1</td><td>43</td></tr> <tr><td>2022 Q4</td><td>45</td></tr> <tr><td>2023 Q1</td><td>44</td></tr> </table>	Quarter	VHD (Thousands)	2022 Q1	43	2022 Q4	45	2023 Q1	44	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2022 Q1	43								
2022 Q4	45										
2023 Q1	44										
2.1%	-3.5%										
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Millions)</th></tr> <tr><td>2022 Q1</td><td>8.3</td></tr> <tr><td>2022 Q4</td><td>8.8</td></tr> <tr><td>2023 Q1</td><td>8.4</td></tr> </table>	Quarter	VHD (Millions)	2022 Q1	8.3	2022 Q4	8.8	2023 Q1	8.4	Over one year ago	Over last quarter
		Quarter	VHD (Millions)								
		2022 Q1	8.3								
2022 Q4	8.8										
2023 Q1	8.4										
1.2%	-4.4%										
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Quarter</th><th>VHD (Thousands)</th></tr> <tr><td>2022 Q1</td><td>112</td></tr> <tr><td>2022 Q4</td><td>115</td></tr> <tr><td>2023 Q1</td><td>112</td></tr> </table>	Quarter	VHD (Thousands)	2022 Q1	112	2022 Q4	115	2023 Q1	112	Over one year ago	Over last quarter
		Quarter	VHD (Thousands)								
		2022 Q1	112								
2022 Q4	115										
2023 Q1	112										
0.1%	-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
		Wednesday -6.1%	Wednesday -17.4%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Monday 6.9%	Monday 13.2%
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
		3 PM -5.7%	5 PM -10.3%
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		7 AM 26.3%	8 AM 15.7%
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
		12 PM -9.3%	6 PM -28.2%
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		5 PM 21.6%	1 PM 35.6%
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
		1 PM -3.2%	5 PM -24.3%
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		4 PM 11.7%	8 PM 29.8%

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
		-	Riverside -8%
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 Day -0.6%	PM Peak -9.5%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		AM Peak 16.7%	AM Peak 6.3%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-27%	-16%
		Change in Bad over one year ago	Change in Bad over last quarter
		7%	-11%

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2023 Q1-2022 Q1		Difference 2023 Q1-2022 Q4		Rank		
		2022 Q1	2022 Q4	2023 Q1	Absolute	Percentage	Absolute	Percentage	2022 Q1	2022 Q4	2023 Q1
I15	San Bernardino	616,774	572,367	762,092	145,318	23.6%	189,725	33.1%	2	2	1
I215	Riverside	577,871	618,073	553,102	-24,769	-4.3%	-64,972	-10.5%	3	1	2
SR91	Riverside	324,734	471,597	464,800	140,066	43.1%	-6,796	-1.4%	5	5	3
I15	Riverside	638,471	512,848	444,747	-193,724	-30.3%	-68,101	-13.3%	1	4	4
I10	San Bernardino	377,724	540,523	431,433	53,709	14.2%	-109,090	-20.2%	4	3	5
SR60	Riverside	236,758	332,931	304,354	67,596	28.6%	-28,578	-8.6%	6	6	6
I210	San Bernardino	222,130	229,724	179,596	-42,534	-19.1%	-50,128	-21.8%	7	7	7
I10	Riverside	33,588	47,829	56,945	23,357	69.5%	9,116	19.1%	10	9	8
SR60	San Bernardino	40,011	46,349	28,767	-11,243	-28.1%	-17,582	-37.9%	9	10	9
I215	San Bernardino	69,421	68,344	17,581	-51,841	-74.7%	-50,763	-74.3%	8	8	10
SR71	San Bernardino	3,672	209	346	-3,327	-90.6%	136	65.2%	11	11	11
SR71	Riverside	18	4	0	-18	-100.0%	-4	-100.0%	12	12	12
TOTALS		3,141,172	3,440,798	3,243,762	102,590	3.3%	-197,037	-5.7%			

The Congestion by Route table shows that congestion has decreased by 5.7% from the previous quarter and increased by 3.3 percent from one year ago.

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