

District 08 Mobility Performance Report

2022 Quarter Four

DEPARTMENT OF TRANSPORTATION

January 24, 2023
DIVISION OF OPERATIONS
TMS SUPPORT

District 08 Mobility Performance Report

2022 Quarter Four

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 urban-area freeways are collect data and are strategically placed at locations where congestion is regularly experienced. The MPR uses the data collected from 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 fourth quarter of 2022 was 5.3 billion miles, which was a 0.04 percent increase when compared to VMT from a year ago and a 1.4 percent decrease from the previous quarter.

In the fourth quarter of 2022, at the 35mph speed threshold, Riverside County exhibited 1.98 million vehicle hours of delay followed by San Bernardino County at 1.46 million. Total delay in District 8 equaled 3.4 million VHD for the 35mph speed threshold. This was a 25.9 percent increase from the previous quarter, and a 15.3 percent decrease when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the fourth quarter of 2022, total delay equaled 8.8 million VHD, which was an increase in delay by 14.2 percent from last quarter and a 12.4 percent decrease in delay for the same quarter over a year ago.

The busiest day of the week as far as congestion for the fourth quarter of 2022 was Friday with 142,000 hours of delay for speed under 60 mph followed by Thursday at 130,000 hours of delay.

Top Ten Bottlenecks for the Fourth Quarter of 2022

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	62	5.67	222,684.80	276.58
2	San Bernardino	Haven Ave	PM	I10-E	54.99	-	8.22	34.07	-117.57	61	2.74	77,469.10	230.33
3	San Bernardino	Jurupa	PM	I15-S	107.73	-	0.969	34.05	-117.55	63	2.41	75,417.50	235.58
4	Riverside	Pigeon Pass	PM	SR60-E	54.63	-	14.509	33.94	-117.26	62	3.69	71,193.70	202.58
5	Riverside	RTE 71/91	AM	SR91-W	39.29	R	1.975	33.88	-117.64	54	2.40	58,630.60	145.42
6	San Bernardino	4th Street	PM	I15-N	109.97	-	3.2	34.08	-117.54	62	1.10	48,252.50	236.67
7	Riverside	west of Rubidoux	PM	SR60-E	48.98	-	8.7	34.01	-117.41	58	2.61	48,019.00	175.83
8	San Bernardino	3.3 miles south of Oak Hill	AM	I15-S	134.66	R	25.3	34.34	-117.46	49	3.50	44,576.70	118.67
9	Riverside	Pierce	PM	SR91-W	48.15	-	10.724	33.90	-117.49	58	2.03	43,865.30	213.33
10	San Bernardino	0.5 miles west of Milliken	PM	I210-E	59.84	-	7.4	34.14	-117.57	53	4.91	41,049.50	76.92

PROJECT STATUS

Some of the following District 8 projects which are separated by county are currently in construction for the year of 2022. These projects will relieve congestion in District 8 once complete however, during the construction phase there might be an increase in delay during 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 – SR74 to SR-60 and I-215 to SR-74, EA: 0J0804

I-15 Corridor Improvement Project to add two Toll Express Lane each direction from Cajalco Road to State Route 60, widen bridges and add sound wall.

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.

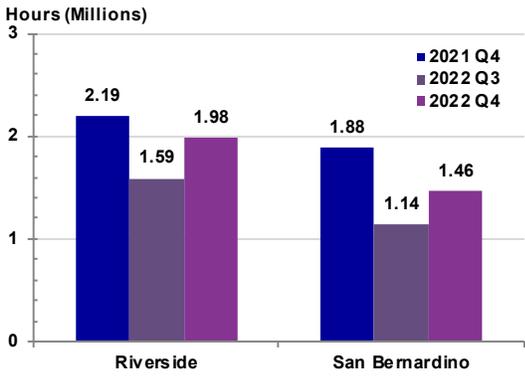
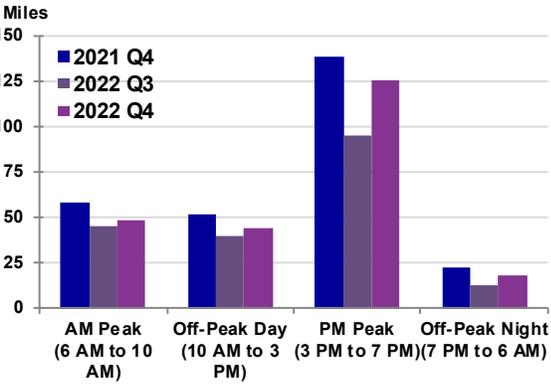
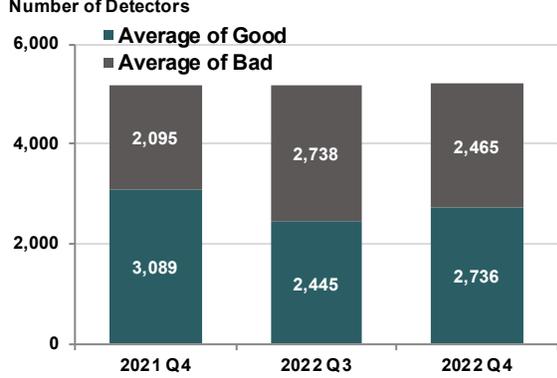
SBD – Rte 10: Location – Alabama street to 0.2 Miles East of County Line Road, EA 384234

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>Year</th><th>Q4</th></tr> <tr><td>2021</td><td>5.29</td></tr> <tr><td>2022</td><td>5.3</td></tr> </table>	Year	Q4	2021	5.29	2022	5.3	Over one year ago	Over last quarter
		Year	Q4						
		2021	5.29						
2022	5.3								
0.04%	-1.4%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2021</td><td>4.1</td></tr> <tr><td>2022</td><td>3.4</td></tr> </table>	Year	Q4	2021	4.1	2022	3.4	Over one year ago	Over last quarter
		Year	Q4						
		2021	4.1						
2022	3.4								
-15.3%	25.9%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2021</td><td>50</td></tr> <tr><td>2022</td><td>45</td></tr> </table>	Year	Q4	2021	50	2022	45	Over one year ago	Over last quarter
		Year	Q4						
		2021	50						
2022	45								
-9.2%	27%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2021</td><td>10</td></tr> <tr><td>2022</td><td>8.8</td></tr> </table>	Year	Q4	2021	10	2022	8.8	Over one year ago	Over last quarter
		Year	Q4						
		2021	10						
2022	8.8								
-12.4%	14.2%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year</th><th>Q4</th></tr> <tr><td>2021</td><td>123</td></tr> <tr><td>2022</td><td>115</td></tr> </table>	Year	Q4	2021	123	2022	115	Over one year ago	Over last quarter
		Year	Q4						
		2021	123						
2022	115								
-6.4%	14%								

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
		Saturday -33.5% ↓	Monday -12.2% ↓
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
		6 PM -10.9% ↓	10 PM -43.2% ↓
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
		3 PM -45.3% ↓	1 PM -32.1% ↓
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
		3 PM -30.2% ↓	12 AM -48.8% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Friday 7.2% ↑	Thursday 28.1% ↑
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		4 AM 16.4% ↑	5 PM 43.2% ↑
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		8 AM 4.5% ↑	5 PM 105.6% ↑
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		4 AM 100.6% ↑	5 PM 187.6% ↑

Measure	Graph	Percentage Change	
<p>Total Vehicle Hours of Delay (VHD) by County at 35 mph</p>		<p>Largest Magnitude Decrease over one year ago</p>	<p>Largest Magnitude Decrease over last quarter</p>
		<p>San Bernardino -22.3% </p>	<p>-</p>
		<p>Largest Magnitude Increase over one year ago</p>	<p>Largest Magnitude Increase over last quarter</p>
		<p>-</p>	<p>Riverside 24.8% </p>
<p>Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph</p>		<p>Largest Magnitude Decrease over one year ago</p>	<p>Largest Magnitude Decrease over last quarter</p>
		<p>PM Peak -8.9% </p>	<p>-</p>
		<p>Largest Magnitude Increase over one year ago</p>	<p>Largest Magnitude Increase over last quarter</p>
		<p>-</p>	<p>PM Peak 31.8% </p>
<p>Average Number of Good and Bad Detectors</p>		<p>Change in Good over one year ago</p>	<p>Change in Good over last quarter</p>
		<p>-11% </p>	<p>12% </p>
		<p>Change in Bad over one year ago</p>	<p>Change in Bad over last quarter</p>
		<p>18% </p>	<p>-10% </p>

Congestion by Route											
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2022 Q4-2021 Q4		Difference 2022 Q4-2022 Q3		Rank		
		2021 Q4	2022 Q3	2022 Q4	Absolute	Percentage	Absolute	Percentage	2021 Q4	2022 Q3	2022 Q4
I-215	Riverside	625,772.40	506,442.00	618,073.40	-7,699.00	-1%	111,631	22%	3	1	1
I-15	San Bernardino	870,390.90	417,353.80	572,366.70	-298,024.20	-34%	155,013	37%	1	4	2
I-10	San Bernardino	510,284.30	447,219.30	540,523.30	30,239.00	6%	93,304	21%	4	3	3
I-15	Riverside	809,409.30	475,380.20	512,847.60	-296,561.70	-37%	37,467	8%	2	2	4
SR-91	Riverside	483,851.50	404,936.80	471,596.60	-12,254.90	-3%	66,660	16%	5	5	5
SR-60	Riverside	204,509.00	186,910.40	332,931.40	128,422.40	63%	146,021	78%	7	6	6
I-210	San Bernardino	331,642.70	177,567.00	229,724.00	-101,918.70	-31%	52,157	29%	6	7	7
I-215	San Bernardino	96,254.60	60,061.90	68,344.10	-27,910.50	-29%	8,282	14%	8	8	8
I-10	Riverside	63,695.80	15,920.20	47,828.80	-15,867.00	-25%	31,909	200%	9	10	9
SR-60	San Bernardino	26,047.30	41,438.10	46,349.40	20,302.10	78%	4,911	12%	11	9	10
SR-71	San Bernardino	41,175.10	143.60	209.20	-40,965.90	-99%	66	46%	10	11	11
SR-71	Riverside	677.00	0.00	3.70	-673.30	-99%	4		12		12
TOTALS		4,063,710	2,733,373	3,440,798	-622,912	-15.3%	707,425	25.9%			

The Congestion by Route table shows that congestion has increased by 25.9% from the previous quarter and a 15.3 percent decrease 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.