

District 08 Mobility Performance Report

2021 QUARTER FOUR

DEPARTMENT OF TRANSPORTATION

January 31, 2022
DIVISION OF OPERATIONS
TMS SUPPORT

District 08 Mobility Performance Report

2021 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 continuously 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 2021 was 5.29 billion miles, which was a 6.4 percent increase when compared to VMT from a year ago and a 1.1 percent decrease from the previous quarter.

In the fourth quarter of 2021, at the 35mph speed threshold, Riverside County exhibited 2.19 million vehicle hours of delay followed by San Bernardino County at 1.88 million. Total delay in District 8 equaled 4.1 million VHD for the 35mph speed threshold. This was a 15.4 percent increase from the previous quarter, and a 92.5 percent increase when compared to the same quarter over a year ago. The 60-mph speed threshold saw a similar trend, during the fourth quarter of 2021, total delay equaled 10 million VHD, which was an increase in delay by 12.6 percent from last quarter and a 65.8 percent increase 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 2021 was Thursday with 145,000 hours of delay for speed under 60 mph followed by Friday at 133,000 hours and Wednesday with 119,000 hours.

Top Ten Bottlenecks for the Fourth Quarter of 2021

| 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 | 61 | 6.76 | 289,001.20 | 263.83 |
| 2 | Riverside | Green River | AM | SR91-W | 38.31 | R | .995 | 33.88 | -117.66 | 54 | 3.59 | 129,512.20 | 186.83 |
| 3 | Riverside | Cajalco Road | PM | I15-S | 91.40 | | 36.921 | 33.82 | -117.52 | 57 | 3.53 | 129,313.00 | 242.42 |
| 4 | San Bernardino | Jurupa | PM | I15-S | 107.73 | | .969 | 34.05 | -117.55 | 62 | 2.62 | 87,956.40 | 236.83 |
| 5 | Riverside | Pigeon Pass | PM | SR60-E | 54.63 | | 14.509 | 33.94 | -117.26 | 62 | 4.17 | 66,284.90 | 207.33 |
| 6 | San Bernardino | 4th Street | PM | I15-N | 109.97 | | 3.2 | 34.08 | -117.54 | 61 | 1.10 | 48,232.20 | 225.33 |
| 7 | Riverside | North of Box Springs Rd | PM | I215-S | 32.36 | | 40.382 | 33.96 | -117.32 | 60 | 2.88 | 46,118.70 | 218.00 |
| 8 | San Bernardino | 5 miles South of Rancho Rd | PM | I15-S | 134.66 | R | 25.3 | 34.34 | -117.46 | 25 | 3.63 | 42,695.40 | 86.17 |
| 9 | Riverside | Rte 71 | AM | SR91-W | 39.29 | R | 1.975 | 33.88 | -117.64 | 29 | 3.06 | 39,049.60 | 56.08 |
| 10 | Riverside | Pierce | PM | SR91-W | 48.15 | | 10.724 | 33.90 | -117.49 | 58 | 1.83 | 37,458.90 | 214.50 |

PROJECT STATUS

The following District 8 projects which are separated by county are currently in construction. These projects will relieve congestion in District 8 once complete however, during the construction phase there might be an increase in delay due to lane closures.

Riverside County:

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. 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

RIV – Rte 60: Location – City of Beaumont, Potrero Blvd

Postmile 28.80 to 30.20 – New Bridge and Highway widening.

San Bernardino County:

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 15: Location - Limonite Ave/I-15, EA: 0E1504
Postmile 46.70 to 49.70, Limonite Avenue at I-15 interchange Improvement Project, in city of Eastvale and Jurupa Valley.

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 – Colton at Santa Ana River Bridge EA: 0Q9104
Postmile 23.80 to 23.80, Bridge Rehabilitation and Seismic Retrofit.

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"> <caption>Vehicle Miles of Travel (VMT) - Miles (Billions)</caption> <thead> <tr> <th>Year/Quarter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>2020 Q4</td> <td>4.98</td> </tr> <tr> <td>2021 Q3</td> <td>5.35</td> </tr> <tr> <td>2021 Q4</td> <td>5.29</td> </tr> </tbody> </table> | Year/Quarter | Value | 2020 Q4 | 4.98 | 2021 Q3 | 5.35 | 2021 Q4 | 5.29 | Over one year ago | Over last quarter |
| | | Year/Quarter | Value | | | | | | | | |
| | | 2020 Q4 | 4.98 | | | | | | | | |
| 2021 Q3 | 5.35 | | | | | | | | | | |
| 2021 Q4 | 5.29 | | | | | | | | | | |
| 6.4% | -1.1% | | | | | | | | | | |
| ↑ | ↓ | | | | | | | | | | |
| Total Vehicle Hours of Delay (VHD) at 35 mph | <p>Hours (Millions)</p> <table border="1"> <caption>Total Vehicle Hours of Delay (VHD) at 35 mph - Hours (Millions)</caption> <thead> <tr> <th>Year/Quarter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>2020 Q4</td> <td>2.1</td> </tr> <tr> <td>2021 Q3</td> <td>3.5</td> </tr> <tr> <td>2021 Q4</td> <td>4.1</td> </tr> </tbody> </table> | Year/Quarter | Value | 2020 Q4 | 2.1 | 2021 Q3 | 3.5 | 2021 Q4 | 4.1 | Over one year ago | Over last quarter |
| | | Year/Quarter | Value | | | | | | | | |
| | | 2020 Q4 | 2.1 | | | | | | | | |
| 2021 Q3 | 3.5 | | | | | | | | | | |
| 2021 Q4 | 4.1 | | | | | | | | | | |
| 92.5% | 15.4% | | | | | | | | | | |
| ↑ | ↑ | | | | | | | | | | |
| Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph | <p>Hours (Thousands)</p> <table border="1"> <caption>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph - Hours (Thousands)</caption> <thead> <tr> <th>Year/Quarter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>2020 Q4</td> <td>29</td> </tr> <tr> <td>2021 Q3</td> <td>44</td> </tr> <tr> <td>2021 Q4</td> <td>50</td> </tr> </tbody> </table> | Year/Quarter | Value | 2020 Q4 | 29 | 2021 Q3 | 44 | 2021 Q4 | 50 | Over one year ago | Over last quarter |
| | | Year/Quarter | Value | | | | | | | | |
| | | 2020 Q4 | 29 | | | | | | | | |
| 2021 Q3 | 44 | | | | | | | | | | |
| 2021 Q4 | 50 | | | | | | | | | | |
| 74.4% | 13.4% | | | | | | | | | | |
| ↑ | ↑ | | | | | | | | | | |
| Total Vehicle Hours of Delay (VHD) at 60 mph | <p>Hours (Millions)</p> <table border="1"> <caption>Total Vehicle Hours of Delay (VHD) at 60 mph - Hours (Millions)</caption> <thead> <tr> <th>Year/Quarter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>2020 Q4</td> <td>6</td> </tr> <tr> <td>2021 Q3</td> <td>8.9</td> </tr> <tr> <td>2021 Q4</td> <td>10</td> </tr> </tbody> </table> | Year/Quarter | Value | 2020 Q4 | 6 | 2021 Q3 | 8.9 | 2021 Q4 | 10 | Over one year ago | Over last quarter |
| | | Year/Quarter | Value | | | | | | | | |
| | | 2020 Q4 | 6 | | | | | | | | |
| 2021 Q3 | 8.9 | | | | | | | | | | |
| 2021 Q4 | 10 | | | | | | | | | | |
| 65.8% | 12.6% | | | | | | | | | | |
| ↑ | ↑ | | | | | | | | | | |
| Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph | <p>Hours (Thousands)</p> <table border="1"> <caption>Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph - Hours (Thousands)</caption> <thead> <tr> <th>Year/Quarter</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>2020 Q4</td> <td>81</td> </tr> <tr> <td>2021 Q3</td> <td>112</td> </tr> <tr> <td>2021 Q4</td> <td>123</td> </tr> </tbody> </table> | Year/Quarter | Value | 2020 Q4 | 81 | 2021 Q3 | 112 | 2021 Q4 | 123 | Over one year ago | Over last quarter |
| | | Year/Quarter | Value | | | | | | | | |
| | | 2020 Q4 | 81 | | | | | | | | |
| 2021 Q3 | 112 | | | | | | | | | | |
| 2021 Q4 | 123 | | | | | | | | | | |
| 51.1% | 9.8% | | | | | | | | | | |
| ↑ | ↑ | | | | | | | | | | |

| 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 |
| | | - | Monday -7.7% |
| | | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter |
| | | Thursday 72.8% | Thursday 32.7% |
| 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 |
| | | 12 AM -56.7% | 9 AM -17.2% |
| | | Largest Magnitude Weekday Increase over one year ago | Largest Magnitude Weekday Increase over last quarter |
| | | 5 PM 47.1% | 5 PM 25.2% |
| 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 |
| | | 8 AM -33.6% | 12 PM -27% |
| | | Largest Magnitude Saturday Increase over one year ago | Largest Magnitude Saturday Increase over last quarter |
| | | 3 PM 189.9% | 6 PM 170.9% |
| 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 |
| | | 4 AM -75.9% | 12 AM -47.6% |
| | | Largest Magnitude Sun./Holiday Increase over one year ago | Largest Magnitude Sun./Holiday Increase over last quarter |
| | | 3 PM 242% | 5 PM 115.7% |

| 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 |
| | | - | - |
| | | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter |
| | | Riverside 112.8% ↑ | Riverside 14.9% ↑ |
| 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 |
| | | - | - |
| | | Largest Magnitude Increase over one year ago | Largest Magnitude Increase over last quarter |
| | | PM Peak 67.1% ↑ | PM Peak 23.4% ↑ |
| Average Number of Good and Bad Detectors | | Change in Good over one year ago | Change in Good over last quarter |
| | | 8.1% ↑ | -2% ↓ |
| | | Change in Bad over one year ago | Change in Bad over last quarter |
| | | -10% ↓ | 4% ↑ |

Congestion by Route

| Route | County | Vehicle Hours of Delay at 35 mph | | | Difference 2021 Q4-2020 Q4 | | Difference 2021 Q4-2021 Q3 | | Rank | | |
|---------------|----------------|-------------------------------------|------------------|------------------|-------------------------------|--------------|-------------------------------|--------------|---------|---------|---------|
| | | 2020 Q4 | 2021 Q3 | 2021 Q4 | Absolute | Percentage | Absolute | Percentage | 2020 Q4 | 2021 Q3 | 2021 Q4 |
| I-10 | San Bernardino | 337,389.40 | 525,437.60 | 510,284.30 | 172,894.90 | 51% | (15,153) | -3% | 3 | 4 | 4 |
| I-10 | Riverside | 6,999.70 | 37,252.40 | 63,695.80 | 56,696.10 | 810% | 26,443 | 71% | 11 | 10 | 9 |
| I-15 | San Bernardino | 469,189.60 | 676,974.10 | 870,390.90 | 401,201.30 | 86% | 193,417 | 29% | 1 | 2 | 1 |
| I-15 | Riverside | 420,435.00 | 697,601.00 | 809,409.30 | 388,974.30 | 93% | 111,808 | 16% | 2 | 1 | 2 |
| I-210 | San Bernardino | 171,020.40 | 282,626.50 | 331,642.70 | 160,622.30 | 94% | 49,016 | 17% | 6 | 6 | 6 |
| I-215 | San Bernardino | 41,736.90 | 63,546.80 | 96,254.60 | 54,517.70 | 131% | 32,708 | 51% | 9 | 8 | 8 |
| I-215 | Riverside | 326,023.50 | 503,187.70 | 625,772.40 | 299,748.90 | 92% | 122,585 | 24% | 4 | 5 | 3 |
| SR-60 | San Bernardino | 15,848.60 | 10,692.10 | 26,047.30 | 10,198.70 | 64% | 15,355 | 144% | 10 | 11 | 11 |
| SR-60 | Riverside | 65,491.70 | 114,765.50 | 204,509.00 | 139,017.30 | 212% | 89,744 | 78% | 7 | 7 | 7 |
| SR-71 | San Bernardino | 47,837.60 | 59,281.80 | 41,175.10 | -6,662.50 | -14% | (18,107) | -31% | 8 | 9 | 10 |
| SR-71 | Riverside | 1,655.40 | 3,484.70 | 677.00 | -978.40 | -59% | (2,808) | -81% | 12 | 12 | 12 |
| SR-91 | Riverside | 207,756.90 | 547,173.20 | 483,851.50 | 276,094.60 | 133% | (63,322) | -12% | 5 | 3 | 5 |
| TOTALS | | 2,111,385 | 3,522,023 | 4,063,710 | 1,952,325 | 92.5% | 541,687 | 15.4% | | | |

The Congestion by Route table shows that congestion has increased by 15.4% from the previous quarter, as well as an increase of 92.5% from the previous year.