

District 08 Mobility Performance Report

2019 First Quarter

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
DIVISION OF OPERATIONS
TMS SUPPORT
April 25, 2019

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2019 First Quarter

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 2.4 million residents while San Bernardino County is estimated at 2.2 million residents. With a total of 4.6 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 first quarter of 2019 was 5.2 billion miles, which was a 29.4 percent decrease when compared to VMT from a year ago and a 22.2 percent decrease from the previous quarter.

In the first quarter of 2019, at the 35-mph speed threshold, Riverside County exhibited 1.74 million vehicle hours of delay followed by San Bernardino County at 1.29 million. Total delay in District 8 equaled 3.03 million VHD for 35 mph speed threshold. This was a 1.1 percent decrease from the previous quarter, and a 26.9 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 2019, total delay equaled 8.1 million VHD, which was a decrease in delay by 1.8 percent from last quarter and a 14.3 percent increase in delay for the same quarter over a year ago.

The busiest day of the week as far as congestion for the first quarter was Friday with 130,000 hours of delay for speed under 60 mph followed by Monday with 121,000 hours and Tuesday with 117,000 hours.

Top Ten AM Bottlenecks for 2019 First Quarter:

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	Riverside	Corona	SR91-W	Green River	AM	R.995	4.25	262,858.4	3.99
2	Riverside	Corona	SR71-S	Rte 71/91 (s/o Prado Dam)	AM	2.5	3.46	42,556.7	3.40
3	Riverside	Corona	I15-N	Weirick Rd	AM	35.878	2.83	36,107.0	2.96
4	Riverside	Riverside	SR60-W	west of Main Street	AM	11.6	3.46	31,499.0	2.41
5	Riverside	Riverside	SR91-W	Pierce	AM	10.724	1.68	30,409.6	3.29
6	Riverside	Corona	SR91-W	Lincoln	AM	5.28	1.00	28,349.3	2.94
7	Riverside	Riverside	I215-N	Central/Watkins	AM	39.643	1.20	27,528.7	3.25
8	San Bernardino	Upland	I210-W	Carnelian	AM	4.5	3.70	23,815.1	1.28
9	Riverside	Perris	I215-N	Harley Knox Blvd	AM	R32.5	4.17	22,010.2	1.43
10	Riverside	Riverside	I215-S	Center St	AM	44.908	2.37	19,814.0	1.94

Top Ten PM Bottlenecks for 2019 First Quarter

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	Riverside	Corona	I15-S	Cajalco Road	PM	36.8	3.09	69,050	3.11
2	Riverside	Unincorporated	I215-S	Van Buren Blvd	PM	R33.989	3.07	67,816	3.44
3	San Bernardino	Fontana	I10-E	Fontana Rest	PM	13.8	3.49	67,703	2.77
4	San Bernardino	Rancho Cucamonga	I15-N	4th Street	PM	3.2	1.12	62,217	3.92
5	San Bernardino	Victorville	I15-N	Oakie Flats	PM	R17.401	2.79	62,177	1.58
6	San Bernardino	Upland	I210-E	Milliken	PM	8	5.94	60,379	2.12
7	Riverside	Moreno Valley	SR60-E	Pigeon Pass	PM	14.509	2.90	48,250	3.33
8	San Bernardino	Ontario	I15-S	Jurupa	PM	.969	1.59	45,924	3.16
9	San Bernardino	Ontario	I10-E	Haven Ave	PM	8.22	2.27	38,858	2.14
10	San Bernardino	Redlands	I10-E	Orange St	PM	30.7	2.26	38,654	1.99

PROJECT STATUS

The following District 8 projects which are separated by county are currently in construction for the year of 2018. These projects will relieve congestion in District 8, 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 – Rte. 215 Interchange at Scotts Road, EA: 0A0204

Postmile R14.80 to 16.20 – Interchange improvement at Scotts Road city of Menifee.

RIV - Rte. 10: Location - City of Indio at Jefferson St, EA: 475204

Postmile 51.70 to 53.10 - Demolish existing bridge and northbound Indio Boulevard overcrossing and replace with new six-lane bridge.

RIV - Rte 15: Location - From San Diego county line to 15/91 separation, EA: 0G7704

Postmile R0.00 to 41.80 - Install New Fiber Optic infrastructure on Rte 15 from PM 0.00/41.80 and upgrade newly installed wireless vehicle detection stations. Connect all the existing TMS elements to the newly installed Fiber Optic infrastructure

RIV - Rte 15,79: Location - Temecula @ I-15/SR-79 South Interchange, EA: 432304

Rte 15 Postmile 3.00 to 4.00, Rte 79 Postmile 19.60 to 19.90 – Realign and reconstruct onramp and offramp.

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

Postmile 36.40 to 37.60 - Interchange Improvements & Reconstruction

RIV – Rte 15: Location – SR74 to SR-60 and I-215 to SR-74, EA: 0J080

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 60: Location – Highway 60 at Potrero Blvd, City of Beaumont, EA: 34141

Postmile 28.70 to 30.20, New Bridge and Highway widening

RIV – Rte 15: Location – I-15/SR-79, EA: 43230

Postmile 3.0 to 4.0, Interchange Improvement @ SR-79(Front St) and I-15.

RIV – Rte 60: Location – Rte 60 from Milliken Ave to 91/215

Postmile 0.0 to R12.2, Replace wireless communication system with Fiber Optic Infrastructure.

RIV – 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.

RIV – Rte 215: Location – City of Menifee Rte 215 at Newport Rd Interchange

Postmile R17.40 to 19.30, Interchange Improvement.

San Bernardino County:

SBD - Rte 10: Location – San Bernardino County from Redlands to Orange St, EA: 0K2914

Postmile 30.90 to 33.30, Lane Replacement in San Bernardino County in Redlands from Orange Street Undercrossing to Redlands Blvd off-ramp undercrossing.

SBD - Rte 15: Location – Kenwood Ave to West Hesperia, EA: 0Q7404

Postmile 15.40 to 30.80, Lane Replacement on I-15 from 0.4 mile north of Kenwood Avenue to 0.3 mile south of West Hesperia OH

SBD - Rte 15: Location – Victorville from Mojave Dr to Stoddard Wells Rd, EA: 3555VA

Postmile 42.50 to 46.00, In San Bernardino County in Victorville from 0.5 Mile North of Mojave Drive to 1.5 Mile North of Stoddard Wells Road Overcrossing, Widen I-15, Reconstruct 3 IC'S, Construct 2 new BR and widen 3 BR

SBD – Rte Various Locations, San Bernardino and Riverside County, EA: 1C6304

Install Road Weather Information System and Modify Existing Electrical system

SBD – Rte 215: Locations – Rte 215/Barton Rd, EA: 0J070

Postmile 0.58/1.95, Project to reconstruct the existing I-215/Barton Rd Interchange.

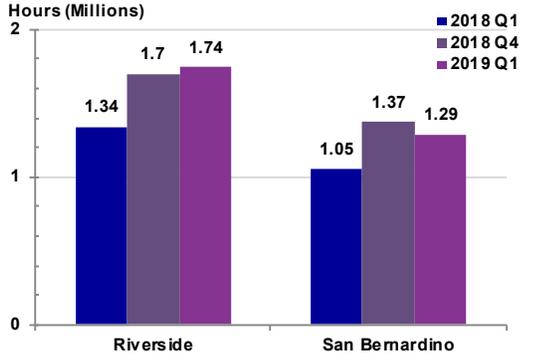
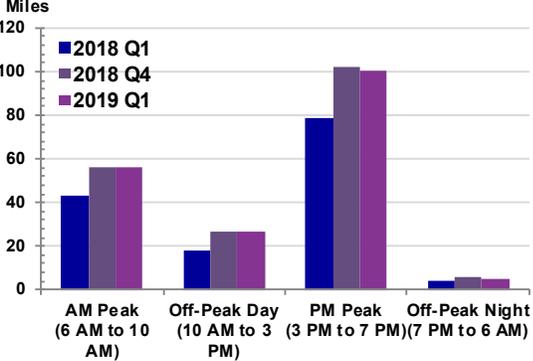
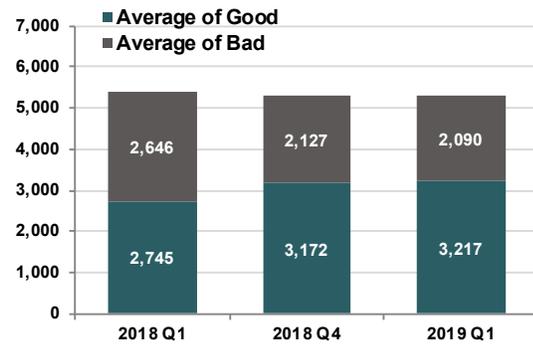
SBD – Rte 10: Location – 0.2 MI w/o Live Oak Canyon Rd to County Line, EA: 0K2934

Postmile: R36.80/39.20, Pavement Rehab & Continuously Reinforced Concrete Pavement

2019 First Quarter Mobility Statistics District 8

Measure	Graph	Percentage Change									
		Over one year ago	Over last quarter								
Vehicle Miles of Travel (VMT)	<p>Miles (Billions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>7.4</td></tr> <tr><td>2018 Q4</td><td>6.7</td></tr> <tr><td>2019 Q1</td><td>5.2</td></tr> </table>	Year/Quarter	Value	2018 Q1	7.4	2018 Q4	6.7	2019 Q1	5.2	Over one year ago	Over last quarter
		Year/Quarter	Value								
2018 Q1	7.4										
2018 Q4	6.7										
2019 Q1	5.2										
		-29.4%	-22.2%								
Total Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>2.4</td></tr> <tr><td>2018 Q4</td><td>3.1</td></tr> <tr><td>2019 Q1</td><td>3</td></tr> </table>	Year/Quarter	Value	2018 Q1	2.4	2018 Q4	3.1	2019 Q1	3	Over one year ago	Over last quarter
		Year/Quarter	Value								
2018 Q1	2.4										
2018 Q4	3.1										
2019 Q1	3										
		26.9%	-1.1%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>33</td></tr> <tr><td>2018 Q4</td><td>43</td></tr> <tr><td>2019 Q1</td><td>44</td></tr> </table>	Year/Quarter	Value	2018 Q1	33	2018 Q4	43	2019 Q1	44	Over one year ago	Over last quarter
		Year/Quarter	Value								
2018 Q1	33										
2018 Q4	43										
2019 Q1	44										
		32.9%	2.6%								
Total Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Millions)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>7.1</td></tr> <tr><td>2018 Q4</td><td>8.2</td></tr> <tr><td>2019 Q1</td><td>8.1</td></tr> </table>	Year/Quarter	Value	2018 Q1	7.1	2018 Q4	8.2	2019 Q1	8.1	Over one year ago	Over last quarter
		Year/Quarter	Value								
2018 Q1	7.1										
2018 Q4	8.2										
2019 Q1	8.1										
		14.3%	-1.8%								
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph	<p>Hours (Thousands)</p> <table border="1"> <tr><th>Year/Quarter</th><th>Value</th></tr> <tr><td>2018 Q1</td><td>97</td></tr> <tr><td>2018 Q4</td><td>113</td></tr> <tr><td>2019 Q1</td><td>115</td></tr> </table>	Year/Quarter	Value	2018 Q1	97	2018 Q4	113	2019 Q1	115	Over one year ago	Over last quarter
		Year/Quarter	Value								
2018 Q1	97										
2018 Q4	113										
2019 Q1	115										
		19%	2%								

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
		Sun/Hol -26.5% ↓	Thursday -14.9% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Monday 42.2% ↑	Monday 42.1% ↑
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
		1 AM -21.6% ↓	6 AM -10.5% ↓
		Largest Magnitude Weekday Increase over one year ago	Largest Magnitude Weekday Increase over last quarter
		5 PM 27.2% ↑	8 AM 14% ↑
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 AM -8.2% ↓	5 PM -32.3% ↓
		Largest Magnitude Saturday Increase over one year ago	Largest Magnitude Saturday Increase over last quarter
		4 PM 23.2% ↑	9 AM 61.5% ↑
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
		5 PM -36.4% ↓	5 PM -34.8% ↓
		Largest Magnitude Sun./Holiday Increase over one year ago	Largest Magnitude Sun./Holiday Increase over last quarter
		8 PM 33.6% ↑	8 PM 65.7% ↑

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
		-	San Bernardino -5.2% 
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Riverside  30.2%	Riverside  2.3%
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
		-	PM Peak  -2.3%
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		PM Peak  26.5%	AM Peak  0.9%
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		17% 	1% 
		Change in Bad over one year ago	Change in Bad over last quarter
		-21% 	-2% 

Congestion by Route												
Route	County	Vehicle Hours of Delay at 35 mph			Difference 2019 Q1-2018 Q1		Difference 2019 Q1-2018 Q4		Rank			
		2018 Q1	2018 Q4	2019 Q1	Absolute	Percentage	Absolute	Percentage	2018 Q1	2018 Q4	2019 Q1	
SR91	Riverside	466,192	623,202	664,823	198,631	42.6%	41,620	6.7%	1	1	1	
I215	Riverside	346,998	566,015	573,698	226,700	65.3%	7,682	1.4%	4	2	2	
I10	San Bernardino	348,248	453,872	444,139	95,891	27.5%	-9,733	-2.1%	3	3	3	
I15	San Bernardino	294,912	378,432	328,903	33,991	11.5%	-49,529	-13.1%	5	4	4	
I15	Riverside	369,871	281,177	302,374	-67,497	-18.2%	21,197	7.5%	2	5	5	
I210	San Bernardino	158,863	233,321	251,264	92,401	58.2%	17,943	7.7%	6	6	6	
SR60	Riverside	106,959	134,115	130,088	23,129	21.6%	-4,027	-3.0%	8	8	7	
SR60	San Bernardino	90,654	140,515	119,263	28,609	31.6%	-21,252	-15.1%	9	7	8	
SR71	San Bernardino	53,871	60,510	75,536	21,665	40.2%	15,027	24.8%	10	10	9	
I215	San Bernardino	107,511	99,669	75,510	-32,000	-29.8%	-24,158	-24.2%	7	9	10	
SR71	Riverside	29,736	35,425	37,926	8,190	27.5%	2,502	7.1%	11	12	11	
I10	Riverside	15,311	59,549	29,051	13,740	89.7%	-30,498	-51.2%	12	11	12	
TOTALS		2,389,127	3,065,799	3,032,575	643,449	26.9%	-33,224	-1.1%				

***I-15 Riverside County** – The data shows a major decrease in delay which is incorrect. Currently on this route there are two major construction projects. Due to construction our detector health has been fluctuating, thus a lot of delay has not been captured from the sensors on this route.