

District 07 Mobility Performance Report

2022 Second Quarter

**DEPARTMENT OF TRANSPORTATION
OFFICE OF SYSTEM PERFORMANCE
DIVISION OF OPERATIONS**

July 8, 2022

: Ashraf Armanious

District 07 Mobility Performance Report

2022 Second Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 7, consisting of Los Angeles and Ventura counties, is part of the second-largest urban region in the United States. Los Angeles County is the most populous county in the United States with more than 10.2 million residents as of 2020. Ventura County has a population of 0.84 million. These two counties have a large amount of sparsely populated national forests and national recreation areas.

The Quarterly Mobility Performance Report (MPR) compares information with over a year ago and over previous quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD) and Bottleneck Locations
- Lost Lane Miles Hours (equivalent lost productivity)
- Detection Health

This information is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed along the State Highway System. The Mobility Performance Report presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph speed threshold represents severe congestion while delay at 60 mph speed threshold represents both light and heavy congestions. These two speed thresholds are set by Caltrans based on engineering judgement.

FINDINGS

- In this second quarter (April – June of 2022), Vehicle miles travelled (VMT) and congestion on the freeways are up to their normal levels despite the surge in gas prices.
- Having said that, VMT across all district 7 freeways in this second quarter was 8.94 billion miles, an increase of 4.8 percent from previous quarter.
- Delays also increased in this quarter:
 - ❖ There was 25.5 million Vehicle Hours of Delay (VHD) at the 60-mph speed threshold, an increase of 11 percent over previous quarter and still a decrease of 5 percent from a year ago.
 - ❖ Only 1.7 percent of the 25.5 million VHD were generated in Ventura County, and 98.3 percent were generated in Los Angeles County.
 - ❖ Similarly, a total of 10 million VHD occurred at the 35-mph speed threshold, an increase of 13.6 percent over the previous quarter and a decrease of 7.3 percent from a year ago.
 - ❖ About 48 percent of VHD in Los Angeles County were generated from 3 freeways only, I-405, I-5, and US-101.
- These delays were equivalent to 294 Lost Lane Miles Hours (LLM)^{*} from the freeway network in the PM Peak Period, compared to the 286 LLM from previous quarter.
- The average weekday daily delay in this quarter was approximately 136,000 VHD at 35-mph speed threshold, and 336,000 VHD at 60-mph speed thresholds (7.3 percent and 5.2 Percent increase respectively over the previous quarter.)
- Thursdays were the most congested days of the week, followed by Fridays. Morning peak hour was at 8:00 AM. Afternoon peak hour was at 4:00 PM. The peak periods extended from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM.
- The weekend's peak hour (Saturday and Sunday) was at 3:00 PM, and peak period extended between 1:00 PM and 4:00 PM.

* **Lost Lane Miles Hours (Lost Productivity):** This is the number of lane-mile-hours that are lost due to the freeway operating under congested conditions. When the freeway is in congestion - speed is below 35 mph - PeMS find the ratio between the measured flow and the capacity for this location. This drop in capacity is due to the fact that the freeway is operating in congested conditions instead of in free flow)

- By the end of the second quarter, good loop detectors were only 16.5 percent of the total loops, while 83.5 percent were nonoperational. Almost 25 percent of the total loops are out due to construction projects.

County	# Det	% Good	% Bad	% Construction
Los Angeles	10644	17.2	82.8	25.0
Ventura	616	5.4	94.6	23.7
Totals	11,260	16.5	83.5	24.9

➤ Top Ten Bottlenecks for the 2022 Second Quarter:

Rank	County	Location	Shift	Fwy	Abs PM	CA PM	Latitude	Longitude	# Days Active	Avg Extent (Miles)	Total Delay (veh-hrs)	Total Duration (hrs)
1	Los Angeles	Greenwood Ave.	PM	I5-S	126.90	10.3	33.9817230	-118.1308450	59	6.00	243,065	218
2	Los Angeles	Howard Hughes Pkwy	PM	I405-S	48.672	24.9	33.976541	-118.387273	56	5.00	196688	187
3	Los Angeles	Palms Blvd	AM	I405-N	52.31	28.5	34.0192060	-118.4238540	61	5.77	192,560	194
4	Los Angeles	Robertson Blvd	AM	I10-W	5.655	R7.81	34.029948	-118.392928	64	4.83	173063.6	230
5	Los Angeles	Adams Blvd.	AM	I110-N	20.53	20.6	34.0260850	-118.2751630	64	4.20	159,383	230
6	Los Angeles	Pasadena Ave	PM	I5-N	136.633	20	34.076978	-118.219273	64	4.04	156581.3	256
7	Los Angeles	Florence Ave.	PM	I605-S	11.22	R9.164	33.9352120	-118.0998850	40	7.09	140,345	158
8	Los Angeles	Burbank Blvd	AM	I405-S	63.772	40	34.168246	-118.468752	60	2.84	124804.2	217
9	Los Angeles	Garfield Ave	PM	SR60-E	5.59	R5.42	34.0330310	-118.1336120	62	3.02	122,645	205
10	Los Angeles	Louise Ave	PM	US101-N	21.159	19.8	34.171254	-118.510916	62	5.29	117182.4	177

Project Status:

The following projects are currently being constructed or are scheduled for construction in District 7. These projects are expected to relieve traffic congestion in Los Angeles and Ventura counties.

LA 5: WIDEN AND REALIGN FREEWAY (SEGMENT 2); EA 2159U

Widen Interstate 5 by adding one High Occupancy Vehicle (HOV) lane and one or two mixed-flow lanes in each direction, reconstruction of Valley View Avenue interchange, and adjacent frontage roads in Los Angeles County, in La Mirada and Santa Fe Springs, from Artesia Blvd to North Fork Coyote Creek.

LA 5: WIDEN AND REALIGN FREEWAY, CONSTRUCT HOV LANES (SEGMENT 5); EA 2159S

Widen Interstate 5 by adding one HOV lane, one or two mixed-flow lanes in each direction and upgrade the inside and outside shoulders to standard width; remove and replace Florence Avenue Overcrossing,

northbound on-ramp bridge from Florence Avenue, and Orr and Day Overhead railroad bridge in Los Angeles County from north of Orr and Day Overhead to I-605/I-5 Interchange.

LA 5: WIDEN & REALIGN FREEWAY FOR HOV LANES; REALIGN METROLINK RAILROAD TRACKS; EA 1218W

Add one HOV lane in each direction in Burbank from West Magnolia Boulevard Overcrossing to 0.3 mile north of Buena Vista Street/Winona Avenue Undercrossing in Los Angeles County.

LA 10: WIDEN FREEWAY, CONSTRUCT HOV LANES; EA 1193U (Segment 3)

Construct one HOV lane in each direction along I-10 in LA County from Citrus Avenue in West Covina to SR-57 in Pomona.

TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.

- LA 10: Repair Ramp Metering and Vehicle Detection System on various routes. EA 34050.
- LA 405: Upgrade existing Traffic Management Communication System from Ventura Blvd. Undercrossing to I-5/I-405 Separation. EA 25710.
- LA 60: Upgrade transportation management system. EA 32710

ROADSIDE SAFETY IMPROVEMENT PROJECTS

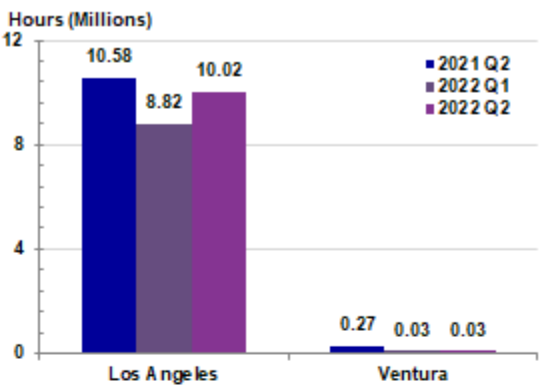


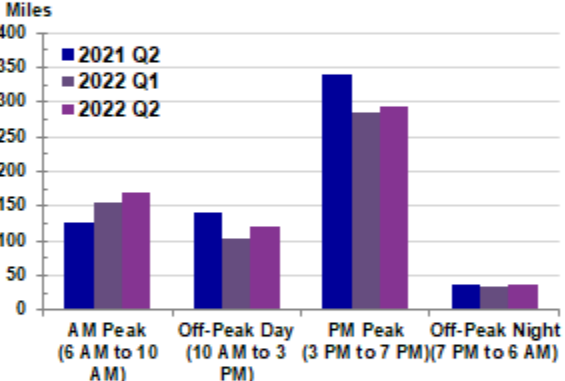



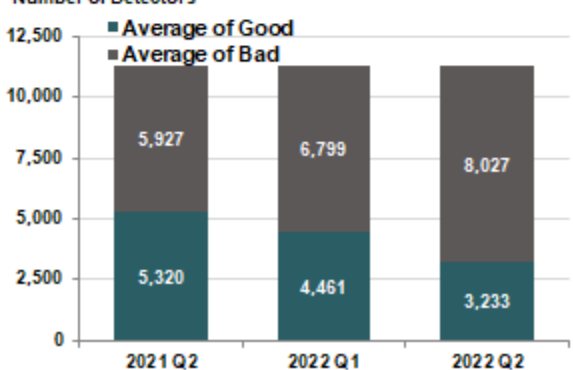




- LA 005: In Los Angeles County from rout 5/118 separation to Balboa Blvd. EA 31990.
- LA 005: In the city of Los Angeles, upgrade traffic signals and curb ramps. EA 35180
- LA 105: Install safety lighting At I-105/I-110 Interchange, EA 29740

This list of ongoing or planned projects is only a partial list, please contact CALTRANS District 7 for more details.

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>2021</td><td>9.04</td></tr> <tr><td>2022</td><td>8.94</td></tr> </table>	Year	Q2	2021	9.04	2022	8.94	Over one year ago	Over last quarter
		Year	Q2						
		2021	9.04						
2022	8.94								
-1.1%	4.8%								
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>2021</td><td>10.8</td></tr> <tr><td>2022</td><td>10.1</td></tr> </table>	Year	Q2	2021	10.8	2022	10.1	Over one year ago	Over last quarter
		Year	Q2						
		2021	10.8						
2022	10.1								
-7.3%	13.6%								
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>2021</td><td>144</td></tr> <tr><td>2022</td><td>136</td></tr> </table>	Year	Q2	2021	144	2022	136	Over one year ago	Over last quarter
		Year	Q2						
		2021	144						
2022	136								
-5.3%	7.3%								
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>2021</td><td>26.8</td></tr> <tr><td>2022</td><td>25.5</td></tr> </table>	Year	Q2	2021	26.8	2022	25.5	Over one year ago	Over last quarter
		Year	Q2						
		2021	26.8						
2022	25.5								
-4.9%	10.9%								
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>2021</td><td>351</td></tr> <tr><td>2022</td><td>336</td></tr> </table>	Year	Q2	2021	351	2022	336	Over one year ago	Over last quarter
		Year	Q2						
		2021	351						
2022	336								
-4.2%	5.2%								

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
		Friday -14.1% ↓	Friday -4.3% ↓
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
		4 PM -16.7% ↓	6 PM -3.7% ↓
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
		1 PM -23.3% ↓	8 AM -22.6% ↓
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 -23.5% ↓	7 PM -13.4% ↓
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		Thursday 5.1% ↑	Wednesday 12.3% ↑
		8 AM 46.2% ↑	10 AM 21.3% ↑
			3 PM 24.7% ↑
		7 AM 136.5% ↑	1 PM 32.5% ↑

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
		Los Angeles -5.3% 	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		-	Los Angeles 13.6% 
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 -13.7% 	-
		Largest Magnitude Increase over one year ago	Largest Magnitude Increase over last quarter
		AM Peak 32.9% 	Off-Peak Day 19.5% 
Average Number of Good and Bad Detectors		Change in Good over one year ago	Change in Good over last quarter
		-39% 	-28% 
		Change in Bad over one year ago	Change in Bad over last quarter
		35% 	18% 

Congestion by Route

Route	County	Vehicle Hours of Delay at 35 mph			Difference 2022 Q2-2021 Q2		Difference 2022 Q2-2022 Q1		Rank		
		2021 Q2	2022 Q1	2022 Q2	Absolute	Percentage	Absolute	Percentage	2021 Q2	2022 Q1	2022 Q2
I-405	Los Angeles	2,085,138	1,921,300	2,213,010	127,872	6.1%	291,710	15.2%	1	1	1
I-5	Los Angeles	1,254,274	1,248,636	1,432,880	178,607	14.2%	184,244	14.8%	3	2	2
US-101	Los Angeles	1,609,012	935,554	1,179,848	-429,163	-26.7%	244,294	26.1%	2	4	3
I-10	Los Angeles	1,171,895	1,121,749	1,051,567	-120,328	-10.3%	-70,182	-6.3%	4	3	4
I-210	Los Angeles	746,358	889,507	958,380	212,023	28.4%	68,873	7.7%	5	5	5
I-605	Los Angeles	526,191	493,900	561,339	35,148	6.7%	67,440	13.7%	8	6	6
SR-60	Los Angeles	628,600	380,363	541,698	-86,903	-13.8%	161,334	42.4%	7	10	7
I-110	Los Angeles	644,351	461,520	490,617	-153,734	-23.9%	29,097	6.3%	6	7	8
SR-91	Los Angeles	273,769	455,733	465,280	191,511	70.0%	9,547	2.1%	12	8	9
I-710	Los Angeles	368,155	419,334	457,519	89,364	24.3%	38,185	9.1%	9	9	10
I-105	Los Angeles	326,538	197,817	195,667	-130,871	-40.1%	-2,150	-1.1%	10	11	11
SR-134	Los Angeles	231,717	105,044	142,517	-89,200	-38.5%	37,473	35.7%	15	12	12
SR-14	Los Angeles	306,559	4,958	96,684	-209,875	-68.5%	91,727	1850.1%	11	19	13
SR-57	Los Angeles	236,982	74,569	81,560	-155,422	-65.6%	6,992	9.4%	14	14	14
SR-118	Los Angeles	50,764	89,908	73,681	22,918	45.1%	-16,226	-18.0%	17	13	15
SR-71	Los Angeles	101,332	9,362	58,586	-42,746	-42.2%	49,224	525.8%	16	17	16
SR-118	Ventura	15,721	12,947	19,267	3,547	22.6%	6,320	48.8%	18	15	17
SR-2	Los Angeles	11,811	11,443	16,777	4,965	42.0%	5,334	46.6%	19	16	18
US-101	Ventura	247,518	8,926	11,377	-236,141	-95.4%	2,451	27.5%	13	18	19
SR-33	Ventura	3,309	3,195	3,309	0	0.0%	113	3.5%	21	20	20
SR-47	Los Angeles	3,906	1,669	1,748	-2,157	-55.2%	80	4.8%	20	21	21
SR-126	Los Angeles	1	3	111	111	22160.0%	108	3610.0%	24	22	22
SR-90	Los Angeles	266	0	28	-238	-89.6%	27	9100.0%	23	23	23
SR-170	Los Angeles	0	0	0	0		0				
TOTALS		10,846,401	8,847,437	10,053,452	-792,949	-7.3%	1,206,015	13.6%			
SR-170 ALL Loops are down from Mid December 2018											