

APPENDIX G – SYSTEM PERFORMANCE REPORT

Stanislaus Council of Governments
2022 Regional Transportation Plan/Sustainable Communities Strategy

APPENDIX G – SYSTEM PERFORMANCE REPORT

MAP-21 Performance Management Requirements

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) promote the use of an objectives-driven, performance-based approach to planning for operations as an effective way to integrate operations into planning and programming. This approach focuses on short- and long-term system performance rather than simply focusing on implementation of projects as a measure of success.

FHWA defines Transportation Performance Management as a strategic approach using system information to make investment and policy decisions to achieve national performance goals. It is systematically applied and a regular ongoing process; provides key information to help decision makers by allowing them to understand the consequences of investment decisions across transportation assets or modes; improves communication between decision makers, stakeholders, and the traveling public; and ensures that performance targets and measures are developed through cooperative partnerships and based on data and objective information.

As a part of Moving Ahead for Progress in the 21st Century (MAP-21), and continued under the Fixing America’s Surface Transportation (FAST) Act, states are to invest resources in projects that, collectively, will make progress toward achieving seven national goal areas that include:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delay

The performance management requirements are being instituted by the U.S. Department of Transportation (USDOT), by rulemakings. The dates the rules were promulgated in the Federal Register, the dates by which they became effective and the relevant regulatory chapters in the Code of Federal Regulations for each of the key FHWA-established measures are presented in Table 1.

Table 1: Transportation Performance Management Rule Making

TPM-Related Rulemaking	Final Rule Published	Effective Date	Regulatory Chapter
Safety Performance Measures (PM1)	March 15, 2016	April 14, 2016	23 CFR 490 (Subpart B)
Highway Safety Improvement Program (HSIP)	March 15, 2016	April 14, 2016	23 CFR 924
Statewide and Non-Metropolitan Planning; Metropolitan Planning	May 27, 2016	June 27, 2016	23 CFR 450
Highway Asset Management Plans for National Highway System (NHS) NHS	October 24, 2016	October 2, 2017	23 CFR 515 & 667

TPM-Related Rulemaking	Final Rule Published	Effective Date	Regulatory Chapter
Pavement and Bridge Condition Measures (PM2)	January 18, 2017	May 20, 2017	23 CFR 490 (Subpart C & D)
Performance of the NHS, Freight, and CMAQ Measures (PM3)	January 18, 2017	May 20, 2017	23 CFR 490 (Subpart E, F, G, H)

Source: FHWA, Office of Transportation Performance Management

Metropolitan planning organizations (MPOs) are required to establish targets for safety, bridge and pavement condition, air quality, freight movement, and for performance of the National Highway System (NHS) and to use the performance measures to track their progress toward meeting those targets.

The California Department of Transportation (Caltrans) and FHWA have focused on three measures: Safety, Pavement and Bridge Condition, National Highway System (NHS), Freight, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program (referred to as PM1, PM2 and PM3, respectively) for initiating the objectives-driven, performance-based approach to planning for operations.

Table 2 presents the schedule established for PM1 through PM3 for the current round of performance target setting. The Safety Performance Targets (PM1) are set annually by the State Department of Transportation (State DOT) and MPOs. PM2 and PM3 targets are currently in their second round of performance setting. Two-year and four-year targets for PM2 and PM3 are set every four years by State DOTs and MPOs. However, the PM3 CMAQ reductions measure performance period does not begin at the beginning of every calendar year.

Table 2: Transportation Performance Management Final Rules

Transportation Performance Management Rules	Final Rule Effective Date	Current Performance Period Start Date	Current Performance Period End Date
Safety Performance Measures (PM1)	4/14/2016	01/01/2022	12/31/2022
Pavement and Bridge Condition Measures (PM2)	5/20/2017	01/01/2022	12/31/2025
Performance of the NHS and Freight Measures (PM3)	5/20/2017	01/01/2022	12/31/2025
Performance of the CMAQ Measure (PM3)	5/20/2017	10/01/2021	9/30/2025

The FHWA published the Highway Safety Improvement Program (HSIP) and Safety Performance Management Measures (Safety PM) Final Rules in the Federal Register on March 15, 2016, with an effective date of April 14, 2016. The HSIP Final Rule updates the HSIP regulation under 23 CFR Part 924 to be consistent with MAP-21 and the FAST Act, and clarifies existing program requirements. The Safety Performance Measures Final Rule adds Part 490 to title 23 of the Code of Federal Regulations to implement the performance management requirements in 23 U.S.C. 150. The Safety PM rule supports

the HSIP, as it establishes safety performance measures to carry out the HSIP and to assess serious injuries and fatalities on all public roads.

The FHWA also published a final rule in the Federal Register (82 FR 5886) with an effective date of May 20, 2017, establishing performance measures for State DOTs to use in managing pavement and bridge performance on NHS. The rule, which was published in the Federal Register on January 18, 2017, establishes measures for state departments of transportation to use to carry out the National Highway Performance Program (NHPP) and to assess the condition of pavements on NHS (excluding the Interstate System), bridges carrying the NHS (including on- and off-ramps connected to the NHS), and pavements on the Interstate System.

The final rule for the Performance of the NHS, Freight, and CMAQ Measures (PM3), was published in the Federal Register (p. 5970 of Volume 82, Part 11) on January 18, 2017 with an effective date of May 20, 2017. The PM3 measures in this final rule are to be employed by State DOTs and MPOs to assess the performance of the Interstate and non-Interstate NHS for the purpose of carrying out NHPP; to assess freight movement on the Interstate System; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program.

23 CFR 490.101 defines a target as “a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Highway Administration.” The performance period during which each target for PM1 through PM3 are measured is identified in Table 2.

Safety Performance Management (PM1)

Safety was the first national performance goal area for which states and MPOs were required to set performance targets. The Safety Performance Measures Final Rule supports the HSIP as it establishes safety performance management requirements for the purpose of carrying out the HSIP and assesses fatalities and serious injuries on all public roads.

The Safety Performance Management Final Rule establishes five performance measures:

1. Number of Fatalities
2. Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
3. Number of Serious Injuries
4. Rate of Serious Injuries per 100 million VMT
5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries

The PM1 Final Rule also establishes the process for State DOTs and MPOs to establish and report their safety targets, and the process that FHWA will use to assess whether State DOTs have met or made significant progress toward meeting those targets. The Safety PM Final Rule also establishes a common national definition for serious injuries.

The State is required to establish annual safety targets for each of the five measures identified above, and is required to report updated targets to FHWA by August 31 of each year. MPOs must establish their own targets or elect to support the State’s targets within 180 days after the State targets have been reported to FHWA.

The State of California established their 2022 safety targets by the deadline of August 31, 2021. On February 16, 2022, the Stanislaus Council of Governments (StanCOG) adopted these targets to meet the MPO deadline to establish targets for the 2022 calendar year by February 27, 2022. The targets adopted for the 2022 calendar year are presented in Table 3 below.

Table 3: 2022 Performance Measures and Targets

Performance Measure	5-Yr. Rolling Average Target for 2022*	Annual Percent Change for 2022
Number of Fatalities	3,491.8	-3.61%
Rate of Fatalities (per 100M VMT)	1.042	-2.00%
Number of Serious Injuries	16,704.2	1.66%
Rate of Serious Injuries (per 100M VMT)	4.879	1.66%
Number of Non-Motorized Fatalities and Non-Motorized Severe Injuries	4,684.4	-3.61% for Fatalities and 1.66% for Serious Injuries

*A 5-year rolling average is the unweighted mean of the previous 5 values

If a MPO elects to support the State’s targets, they are required to work and coordinate with the State to identify areas of concern and performance measures for all public roads and incorporate the targets into the metropolitan planning process. The MPO must also include a description in their plans of the affect its investments would have on reaching the State’s targets. In the previous rounds of safety target setting, the StanCOG agreed to support the State’s 2018, 2019, 2020, 2021, and 2022 Safety Performance Targets to contribute toward State efforts to achieve safer public roads

States are considered to have met or made significant progress toward meeting their safety targets when at least 4 of the 5 targets are met or the outcome for the performance measure is better than the baseline performance the year prior to the target year.

If FHWA determines a State has either not met or made significant progress toward meeting its performance targets, the State will be required to use funding equal to HSIP funding amount used in the baseline year only for safety projects and submit an HSIP Implementation Plan detailing the actions Caltrans will take to meet or make significant progress towards meeting its targets in the following years.

FHWA has determined that the State of California has not met or made significant progress toward the 2018 and 2019 calendar year targets. Since the State did not meet or make progress towards the calendar year 2018 targets, Caltrans adopted an HSIP Implementation Plan on September 30, 2020.

In early 2022, both the federal government and the state of California adopted safety goals to support the goal of zero fatalities on the roadway. On January 27, 2022, the USDOT released the National Roadway Safety Strategy (NRSS) to support the reduction of fatalities and serious injuries along roadways. The NRSS sets a long-term goal of zero fatalities. Following the release of the NRSS, on February 15, 2022, Caltrans released a new Road Safety Policy, also known Director’s Policy 36 (DP-36), that sets the goal of zero roadway fatalities and serious injuries in California by 2050. Both Director’s Policy 36 and the NRSS employ a Safe System Approach to achieve a long-term goal of zero injuries and fatalities.

StanCOG continues to coordinate with FHWA and Caltrans for setting its targets to reduce serious injuries and fatalities. State targets required by FHWA are submitted annually to FHWA on August 31st. StanCOG



sets their targets six months after the State submits their targets to FHWA. Three of the five safety targets must be coordinated with the Highway Safety Plan, administered by the Office of Traffic Safety (OTS), which must submit their targets to the National Highway Transportation Safety Administration (NHTSA) by June 30th of each year. The following table identifies the deadlines associated with PM1 target setting and reporting.

Table 4: Safety Performance Management (PM1) Schedule/Next Steps

Safety Performance Management (PM1) Schedule				
Date	Action	MPO	State	FHWA
March 2022	FHWA reports whether the State has met or made significant progress toward meeting CY 2020 safety targets.			●
7/1/2022	The OTS sets Statewide PM1 Targets for three of the five Targets (Number of Fatalities, Number of Serious Injuries and Rate of Fatalities) with NHTSA.		●	
8/31/2022	Caltrans sets Calendar Year 2023 Statewide PM1 Targets with FHWA in HSIP.		●	
9/30/2022	Caltrans will prepare a whitepaper documenting target-setting coordination with MPOs and explaining the analytical methodology used to calculate statewide PM1 safety targets.		●	
2/27/2023	MPOs must document with Caltrans whether they: 1) agree to plan and program projects so that they contribute toward the accomplishment of Caltrans 2023 PM1 target for that performance measure; or 2) commit to a quantifiable 2023 PM1 target for that performance measure for their metropolitan planning area. (Note: Caltrans will provide MPOs an MPO Target Reporting Template).	●	●	
7/1/2023	OTS sets Statewide PM1 Targets for 3 of the 5 Targets (Number of Fatalities, Number of Serious Injuries and Rate of Fatalities) with NHTSA.		●	
8/31/2023	Caltrans sets Calendar Year 2024 Statewide PM1 Targets with FHWA in HSIP.		●	●
9/30/2023	Caltrans will prepare a whitepaper documenting target-setting coordination with MPOs and explaining the analytical methodology used to calculate statewide PM 1 safety targets.		●	
2/27/2024	MPOs must document with Caltrans whether they: 1) agree to plan and program projects so that they contribute toward the accomplishment of Caltrans 2024 PM1 target for that performance measure; or 2) commit to a quantifiable 2024 PM1 target for that	●		

Safety Performance Management (PM1) Schedule				
Date	Action	MPO	State	FHWA
	performance measure for their metropolitan planning area. (Note: Caltrans will provide MPOs with their Target Reporting Template).			
March 2023	FHWA reports whether the State has met or made significant progress toward meeting CY 2021 safety targets.			●

Source: Transportation Performance Management & Asset Management Plan – Key Implementation Dates (<https://www.fhwa.dot.gov/tpm/rule/timeline.pdf>)

Regional Support for State's 2022 Safety Performance Targets

On February 16, 2022, the StanCOG Policy Board unanimously voted to support Caltrans' 2022 Safety Performance Targets presented in Table 3, above. To date, there has been five rounds of target setting. StanCOG has agreed to support the State's 2018, 2019, 2020, 2021, and 2022 Safety Performance Targets to contribute toward State efforts for reducing serious injuries and fatalities. StanCOG will continue to reassess, on an annual basis, whether to support the State's safety performance targets or to set MPO targets.

Progress and Next Steps

Safety is a national transportation performance goal area and is a priority for StanCOG and its member agencies. As indicated above, StanCOG has participated all five rounds of safety target setting by Caltrans and opted to set the State's targets. StanCOG has been and will continue to invest in programs and projects to reduce fatalities and injuries on all public roads. StanCOG will accomplish this through continued coordination with our planning partners and member agencies through its planning and programming efforts.

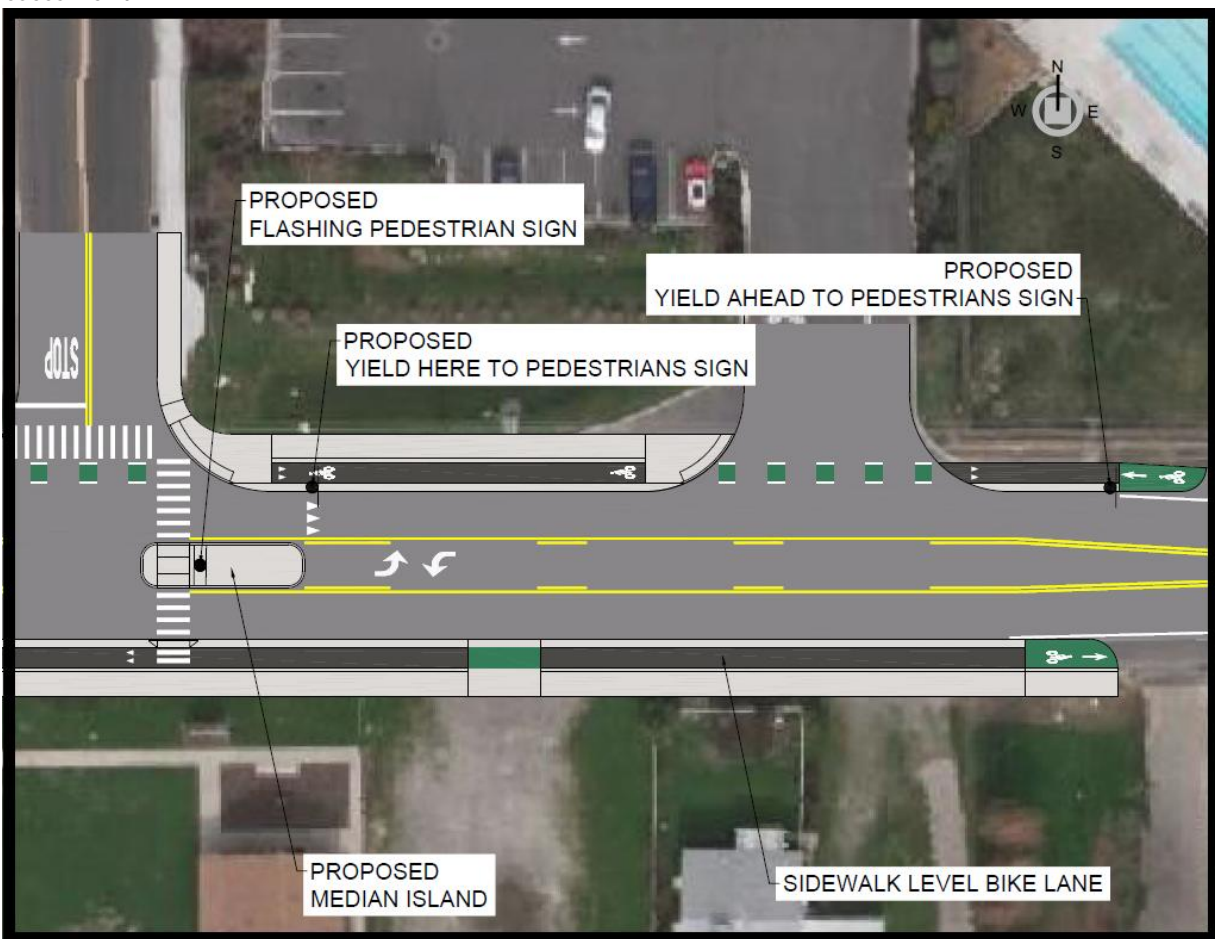
Safety is taken into account in a wide array of planning activities undertaken by StanCOG. StanCOG solicits input from the general public and other stakeholders regarding safety during public involvement activities, such as during the Regional Transportation Plan update, the annual Unmet Transit Needs Assessment, and special studies/projects. StanCOG actively seeks opportunities to promote safety in the region. For example, in 2021, StanCOG conducted a region-wide Bicyclist and Pedestrian Safety and Education Campaign where StanCOG teamed with community leaders and advocates in a collaborative effort to improve road user safety behavior, increase motorist awareness of and empathy towards active transportation users, and increase walking and bicycling throughout Stanislaus County.

StanCOG participates in project level planning efforts as a sponsor and project lead on roadway improvement projects, environmental analyses, feasibility studies and other regional planning efforts. In 2019, StanCOG launched the development of a comprehensive Non-Motorized Transportation Plan (NMTP) update for the Stanislaus region. StanCOG's NMTP includes proposed recommendations for the regional network to better connect residents to key destinations, encourage biking and walking, and facilitate inter-jurisdictional travel. During the NMTP development, StanCOG worked closely with community-based organizations, members of the public, public health officials, school districts, bicycle and pedestrian advocates, and StanCOG's member agencies to solicit input on the Plan. In total, the NMTP

recommends 224 bikeway projects and 1,215 pedestrian projects across the Stanislaus region as well as non-motorized transportation program recommendations. Additionally, the NMTP identifies 25 of the highest priority corridors for improvements. 127 of these projects are identified in the 2022 RTP/SCS project list.

Building off of the 2018 RTP/SCS, StanCOG launched a Community Transportation Needs Assessment in the Spring of 2021. The purpose of the Needs Assessment was to conduct a more focused study in disadvantaged, unincorporated communities within Stanislaus County to identify potential needs and improvement strategies for increasing mobility for all modes, promoting bicycling and walking, reducing Greenhouse Gas emissions, removing transportation barriers, and decreasing traffic fatalities and serious injuries.

Figure 1: Preliminary Design Concept Developed for StanCOG's Community Transportation Needs Assessment



Pictured above is a preliminary design concept produced for StanCOG's Community Transportation Needs Assessment in 2022.

The assessment was conducted in the communities of Bystrom and Empire. One of the outcomes of the study was the development of design concepts which identify proposed improvements along two high-need corridors within each community, as pictured above.

Consistent with the Safety and Health goal of the 2022 RTP/SCS, StanCOG strives to operate and maintain the transportation system to ensure public safety and security for Stanislaus residents. Below are a few example projects identified in the 2022 RTP/SCS, which include strategies for enhancing safety that will support the State in reaching Safety Performance Management Targets. These projects include highway safety and pedestrian safety improvements, and bicycle safety improvements.

- Pedestrian and Bicycle Safety Improvements around Modesto High School – Paradise Road from Sheridan to 1st, S. Jefferson from Paradise to Vine, 1st from Vine to Sierra and G St from Sierra to 2nd
- Highway and pedestrian safety improvements – On SR-33 from the Merced County line northward to Yolo Avenue in the City of Newman
- School Traffic Safety Project – Various locations in the City of Riverbank
- Roadway Safety Improvements – Various locations in Stanislaus County
- Install Sidewalks, upgrade ADA-compliant ramps, install and/or enhance crosswalks-- Various locations in the City of Oakdale
- Rectangular Rapid Flashing Beacons – Various locations in the City of Modesto

There are numerous other safety-related projects included in the 2022 RTP/SCS Project List (see Appendix K).

Pavement and Bridge Performance Measures (PM2)

The FHWA published in the Federal Register (82 FR 5886) a final rule, which became effective as of May 20, 2017, establishing performance measures for State DOTs to use in managing pavement and bridge performance on NHS.

State DOT targets are determined from asset management analyses and procedures and reflect investment strategies that work toward achieving a state of good repair over the life cycle of assets at minimum practicable cost. State DOTs may establish additional measures and targets that reflect asset management objectives. The rule applies to bridges carrying the NHS, including on- and off-ramps connected to the NHS. If for 3 consecutive years more than 10.0% of a State DOT's NHS bridges' total deck area is classified as Structurally Deficient, the State DOT must obligate and set aside NHPP funds for eligible projects on bridges on the NHS. Deck area of all border bridges counts toward both State DOTs' totals. The Final Rule establishes the Pavement Performance Measures as follows.

1. % of Interstate pavements in Good condition
2. % of Interstate pavements in Poor condition
3. % of non-Interstate NHS pavements in Good condition
4. % of non-Interstate NHS pavements in Poor condition

Table 5 presents the pavement condition criteria for rating a pavement as good, fair, or poor, based on four metrics: International Roughness Index (IRI), Cracking, Rutting and Faulting. If all metrics receive a rating of good, then the pavement condition is considered to be good. If two or more metrics are determined to be poor, then the pavement is considered to be in poor condition.

Table 5: Pavement Condition Criteria

Parameter	Good	Fair	Poor
IRI ¹ (in/mi)	<95	95-170	<170
Cracking (%)	<5	5-10 (CRCP ²) 5-15 (JPCP ³) 5-20 (AP ⁴)	>10 (CRCP ¹) >15 (JPCP ²) >20 (AP ³)
Rutting ⁴ (in)	<0.2	0.2-0.4	>0.4
Faulting (in)	<0.10	0.10-0.15	>0.15

¹ International Roughness Index ² Continuously reinforced concrete pavement ³ Jointed plain concrete pavement ⁴ Asphalt pavement ⁴ Rutting is applicable to asphalt pavement only. ⁵ Faulting is applicable to jointed plain concrete pavement only.

The Final Rule also establishes the Bridge Performance Measures as:

1. % of NHS bridges by deck area classified as in Good condition
2. % of NHS bridges by deck area classified as in Poor condition

Table 6: National Bridget Inventory (NBI) Condition Rating and Associated Asset Classification

Asset Classification	Lowest NBI Condition Rating
Good	9
	8
	7
Fair	6
	5
Poor	4
	3
	2
	1
	0

State DOTs must establish targets for all bridges carrying the NHS, including on- and off-ramps connected to the NHS and bridges carrying the NHS that cross a State border, regardless of ownership.

Caltrans set the first round of Statewide two-year and four-year PM2 targets by the deadline of May 20, 2018. On October 1, 2018, Caltrans reported those targets to FHWA in a Baseline Performance Period Report. The 2018 System Performance Targets are shown in Table 3 below.

Table 7: 2018 Statewide Pavement and Bridge Performance Targets

Pavement and Bridge Performance Measures		2-Year NHS Targets		4-Year NHS Targets	
		Good	Poor	Good	Poor
Pavements on NHS	Interstate	45.1%	3.5%	44.5%	3.8%
	Non-Interstate	28.2%	7.3%	29.9%	7.2%
Bridges on the NHS		69.1%	4.6%	70.5%	4.4%

MPOs have the option to either support the relevant State DOT four-year targets or establish their own targets for pavement and bridges within 180 days after the State DOT targets are established. On November 14, 2018, StanCOG unanimously adopted the State's targets. Under these state targets, StanCOG must meet certain condition levels to contribute to the State's overall targets. The condition level targets for StanCOG are shown in Table 8 below.

Table 8: StanCOG PM2 Targets

2-Yr Pavement Condition Targets				4-Yr Pavement Condition Targets			
Good (in Lane Miles)	% Good	Poor (in Lane Miles)	% Poor	Good (in Lane Miles)	% Good	Poor (in Lane Miles)	% Poor
93	42.5%	38	17.4%	96	43.8%	39	17.8%

If FHWA determines the State DOT's Interstate pavement condition falls below the minimum level for the most recent year, the State DOT must obligate a portion of NHPP and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition. If for 3 consecutive years more than 10.0% of a State DOT's NHS bridges' total deck area is classified as Structurally Deficient, the State DOT must obligate and set aside NHPP funds for eligible projects on bridges on the NHS.

On October 1, 2020, Caltrans released a Mid Performance Period Progress Report on PM2. During this period, the targets for PM2 may be adjusted. However, Caltrans did not adjust the 4-year condition targets for pavement and bridge assets on the state-owned NHS. In addition, StanCOG maintained the regional 4-year pavement and bridge targets.

On December 31, 2021, the First Performance Period for PM2 ended and the Second Performance Period commenced. On October 1, 2022, a Full Performance Period Progress Report on the 1st Performance Period will be due. In addition, the Baseline Performance Period Report for the Second Performance Period will be due. This report will provide the State DOT two-year and four-year targets for PM2. The schedule for the PM2 Second Performance Period is shown below in Table 9.

Table 9: Pavement and Bridget Performance Management (PM2) Schedule/Next Steps

Pavement and Bridge (PM2) Schedule			
Date	Action	FHWA	State
10/01/2022	A Full Performance Period Progress Report for the 1 st Performance Period is due. FWHA will determine the Significant Progress and notify the State DOT toward the achievement of its NHPP and NHFP targets	●	●
10/01/2022	State DOTs will release the Baseline Performance Period Report for the 2 nd Performance Period. In this report, the two-year and four-year PM2 Targets will be reported.		●
10/01/2024	State DOTs must submit the Mid Performance Period Progress Report to FHWA. FHWA will determine the Significant Progress and notify the State DOT of the outcome.	●	●
10/01/2026	State DOTs must submit the Full Performance Period Progress Report for the 2 nd Performance Period. FWHA will determine the Significant Progress and notify the State DOT toward the achievement of its NHPP and NHFP targets	●	●
10/01/2026	State DOTs will release the Baseline Performance Period Report for the 3 rd Performance Period. In this report, the two-year and four-year PM2 Targets will be reported.		●

Source: Transportation Performance Management & Asset Management Plan – Key Implementation Dates (<https://www.fhwa.dot.gov/tpm/rule/timeline.pdf>)

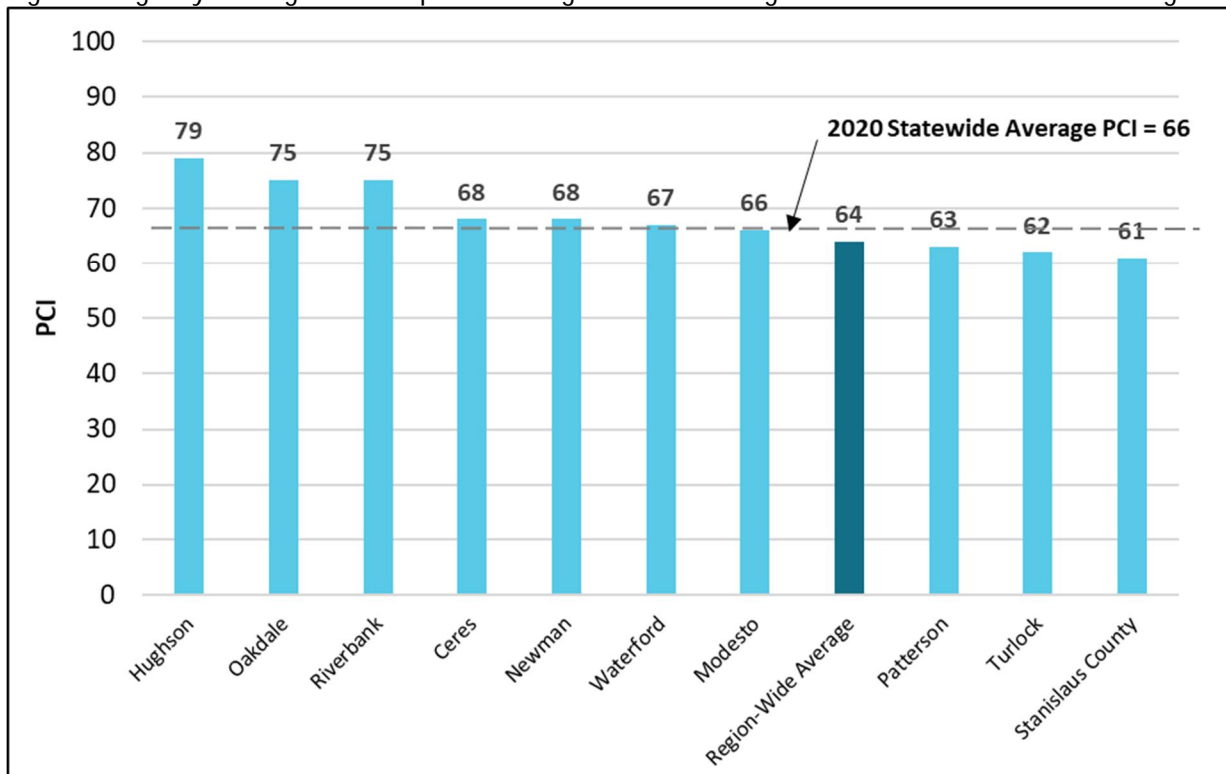
Progress and Next Steps

In 2021, the Stanislaus Council of Governments (StanCOG) solicited interest among its member agencies in participating in a collaborative region-wide pavement management program (PMP) update. This project is locally funded by member agencies and StanCOG is responsible for collaborating closely with the member agencies’ technical and management staff in order to ensure the success of the PMP update. To support the PMP Update, in 2021 and 2022, pavement condition data was collected in the 9 cities and the county in the Stanislaus region.

The results of the conditions analysis show the region-wide pavement network to be in “Fair” condition, currently, with an average pavement condition index (PCI) of 64. Approximately 50.9 percent of the network is in “Good” condition while 23.8 percent is in “Poor” or “Failed” condition. Approximately 17.6 percent of pavements are in “Poor” condition with 6.2 percent in “Failed” condition. Figure 1 presents the average PCI for each of StanCOG’s member agencies for comparison against the region-wide (PCI=64) and statewide average PCI (PCI=66, as determined by the 2020 California Statewide Local Streets and Roads Needs Assessment).



Figure 2: Agency Average PCI Compared to Region-Wide Average PCI and 2020 Statewide Average PCI



As identified in the PMP, the region-wide pavement network consists of approximately 2,827 centerline miles of streets, which represents a substantial investment of approximately \$4.4 billion.

System Performance (PM3)

A final rule, published in the Federal Register (82 FR 5970) on January 18, 2017, establishes performance measures that State DOTs and MPOs will use to report on the performance of the Interstate and non-Interstate NHS to carry out the NHPP; freight movement on the Interstate system to carry out the National Highway Freight Program (NHFP); and traffic congestion and on-road mobile source emissions for the purpose of carrying out CMAQ Program.

The final rule, effective as of May 20, 2017, establishes six performance measures:

1. Percent of reliable person-miles traveled on the Interstate
2. Percent of reliable person-miles traveled on the non-Interstate NHS
3. Percentage of Interstate system mileage providing for reliable truck travel time - Truck Travel Time Reliability (TTTR) Index
4. Total emissions reductions by applicable pollutants under the CMAQ program
5. Annual hours of peak hour excessive delay per capita
6. Percent of non-single occupancy vehicle travel which includes travel avoided by telecommuting.

State DOTs must have established two-year and four-year targets for each of the PM3 performance measures by May 20, 2018 and reported those targets to FHWA by October 1, 2018 in the Baseline Performance Period Report.

MPOs had the option to either support the relevant State DOT targets or establish their own targets within 180 days of the State establishing their targets. MPOs must document with Caltrans whether they: 1) agree to plan and program projects so that they contribute toward the accomplishment of Caltrans PM3 target for that performance measure; or 2) commit to a quantifiable PM3 target for their metropolitan planning area. On November 14, 2018, StanCOG Policy Board affirmed its support for Caltrans' targets by motion. The PM3 targets are shown below in Table 10.

Table 10: PM3 Targets

Performance Measure	2017 Baseline Data	2-year Target	4-year Target
PM3 – National Highway System			
Percent of reliable person-miles traveled on the Interstate ¹	64.6%	65.1% (+0.5%)	65.6% (+1%)
Percent of reliable person-miles traveled on the non-Interstate NHS ¹	73.0%	N/A	74.0% (+1%)
PM3 – Freight Movement			
Percentage of Interstate system mileage providing reliable truck travel time (Truck Travel Time Reliability Index) ¹	1.69	1.68 (-0.01)	1.67 (-0.02)
PM3 – CMAQ Program			
Annual hours of peak hour excessive delay per capita*	N/A	N/A	N/A
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program²			
VOC (kg/day)	951.83	961.35 (+1%)	970.87 (+2%)
CO (kg/day)	6,863.26	6,931.90 (+1%)	7,000.54 (+2%)
NOx (kg/day)	1,753.36	1,770.89 (+1%)	1,788.43 (+2%)
PM10 (kg/day)	2,431.21	2,455.52 (+1%)	2,479.93 (+2%)
PM2.5 (kg/day)	904.25 (+2%)	913.29 (+1%)	922.34

*Annual hours of peak hour excessive delay per capita - N/A, Stanislaus population <1M Data provided by Caltrans Department of Planning and Modal Program, May 2018, from the sources listed below.

¹ Source: NPMRDS Analytics Tool (<https://nprmds.ritis.org/analytics/>)

² Source: CMAQ Public Access System (https://fhwaapps.fhwa.dot.gov/cmaq_pub/)

On October 1, 2020, Caltrans submitted its Performance Management (PM) Mid-Performance Period Progress (MPPP) Report for PM3. During this period, the targets for PM3 may be adjusted. However, Caltrans did not adjust the 4-year targets for PM3 and StanCOG did not elect to set regional targets.

The first performance period for PM3 ended on December 31, 2021; except for the CMAQ emissions measure whose first performance period ended on September 30, 2021.

On October 1, 2021, the FHWA released guidance on the Applicability Determination for CMAQ Traffic Congestion and CMAQ On Road Mobile Source Emissions Measures. Under this new guidance, StanCOG must utilize a CMAQ Traffic Congestion performance measure. During the first performance period, urbanized areas under 1 million did not have to set a traffic congestion measure. However, under the second performance period, urbanized areas over 200,000 now must include a traffic congestion measure. During future performance periods, urbanized areas that are designated as nonattainment or maintenance areas for ozone (O3), carbon monoxide (CO), or particulate matter (PM10 and PM2.5)

National Ambient Air Quality Standards (NAAQS) must set a CMAQ Traffic Congestion performance measure.

Table 11: System Performance (PM3) Schedule/Next Steps

System Performance (PM3) Schedule				
Date	Action	MPO	FHWA	State
10/01/2022	A Full Performance Period Progress Report for the 1 st Performance Period is due. FHWA determines Significant Progress and notifies State DOT of outcome.		●	●
10/01/2022	State DOTs will release the Baseline Performance Period Report for the 2 nd Performance Period. In this report, the two-year and four-year PM3 Targets will be reported.			●
03/30/2023	Deadline for MPOs to establish their PM3 targets.	●		
10/01/2024	State DOTs must submit the Mid Performance Period Progress Report to FHWA. FHWA will determine the Significant Progress and notify the State DOT of the outcome.		●	●
9/30/2025	End of the 2 nd performance reporting period for on-road mobile source emissions.			●
12/31/2025	End of the performance period for traffic congestion measures.			●
10/01/2026	A Full Performance Period Progress Report for the 2 nd Performance Period is due. FHWA determines Significant Progress and notifies State DOT of outcome.		●	●

Source: Transportation Performance Management & Asset Management Plan – Key Implementation Dates (<https://www.fhwa.dot.gov/tpm/rule/timeline.pdf>)

Progress and Next Steps

In February of 2020, StanCOG updated its Congestion Management Process (CMP). A Congestion Management Process (CMP) is a systematic and regionally-accepted approach for managing and reducing the impacts of congestion on the movement of people and goods. A CMP is federally required in metropolitan areas with populations exceeding 200,000, known as Transportation Management Areas (TMAs). Federal requirements state that a CMP shall be developed and implemented as an integrated part of the metropolitan transportation planning process in all TMAs. The 2020 CMP was cooperatively developed by StanCOG and a Steering Committee comprised of local, state, and federal representatives to provide a region-wide transportation strategy.

As part of the CMP update, Traffic Level of Service (LOS) was monitored on a total of 106.6 directional miles of freeways and 250.4 directional miles of arterials on the county's CMP network. The CMP corridors on I-5 and SR-99 were categorized as limited-access freeway and interstate facilities. All other CMP corridors were categorized as principal arterials. Of the roadways identified in the final CMP network, all

arterial CMP reporting corridors met the CMP's LOS standard of LOS D or better and all freeway corridors evaluated met the LOS threshold (LOS D or better) in the AM peak period.

One CMP corridor did not meet the LOS threshold in the PM peak period; Southbound SR-99 from Briggsmore Avenue to Maze Boulevard (SR 132) in Modesto was observed to have a PM peak LOS E. However, several types of travel are exempt from the deficiency determination, including trips that originate outside the agency's boundary. A select link analysis was performed on southbound SR-99 at the San Joaquin/Stanislaus County border to identify the traffic exempt from the deficiency determination. The analysis determined that this location is not deemed a deficiency. As a result of the analysis, no local jurisdictions are required to prepare Deficiency Plans to comply with California Code.

StanCOG will continue to coordinate with Caltrans to support the State and ensure that it meets its PM3 targets. To improve the conditions identified on SR-99, there are multiple planned projects and studies listed in the 2022 RTP/SCS that will assist in alleviating congestion, including reconstruction of the Briggsmore and Standiford/Beckwith Interchanges and installing HOV lanes. The full project list can be found in Appendix K.