

Section VII

Performance Measures

SECTION VII

PERFORMANCE MEASURES

Table of Contents

	Page
Performance Monitoring.....	VII-1
MAP-21 Performance Measures.....	VII-1
MAP-21 Performance Reporting.....	VII-5

THIS PAGE INTENTIONALLY LEFT BLANK.

Performance Monitoring

The 2012 federal transportation authorization legislation, ‘Moving Ahead for Progress in the 21st Century’ (MAP-21) established new requirements for performance management and reporting to ensure the most efficient investment of Federal transportation funds. To incorporate the new federal performance requirements into the Federal Transportation Improvement Program (FTIP), SCAG is required to show 1) that the FTIP “makes progress towards achieving [the region’s] performance targets” and 2) that the FTIP includes, “to the maximum extent practicable, a description of the anticipated effect of the FTIP towards achieving the performance targets.”

The projects contained within the 2021 FTIP have been developed in accordance with the applicable provisions and requirements of 23 CFR Part 450 and are expected to support the achievement of these targets. These targets will be achieved through the implementation of investment priorities through the programming of transportation projects in the 2021 FTIP, and subsequent FTIP Amendments and Administrative Modifications.

MAP-21 Performance Measures (PM)

With the enactment of the ‘Moving Ahead for Progress in the 21st Century’ (MAP-21) federal transportation authorization package in 2012, and its successor legislation, the ‘Fixing America’s Surface Transportation’ (FAST) Act in 2015, performance-based transportation planning became a federally mandated activity. A defining feature of MAP-21 was the establishment of a national performance-based transportation planning program, with the objective of ensuring that federally funded transportation system investments are directed toward the achievement of national transportation goals.

MAP-21 defined seven specific national transportation performance goals to be addressed through the performance-based planning process: 1) Transportation Safety; 2) Infrastructure Condition; 3) Congestion Reduction; 4) System Reliability; 5) Freight Movement and Economic Vitality; 6) Environmental Sustainability; and 7) Reduced Project Delivery Delay.

To provide a quantitative basis for evaluating progress toward achieving national transportation goals, MAP-21 required FHWA to develop a set of corresponding performance metrics. These MAP-21 performance measures provide a standardized quantitative framework for evaluating statewide progress toward meeting each of the national goals.

Guidelines in support of the federal performance monitoring program were finalized by FHWA through three rulemakings. Performance Management Rule 1 (PM 1), released in April 2016, provided performance metrics for Transportation System Safety. Performance Management Rule 2 (PM 2), addressed performance measures for National Highway System (NHS) pavement and bridge condition; and Performance Management Rule 3 (PM3), focused on performance measures for NHS System Performance, Freight Movement, and the CMAQ program. FHWA released PM 2 and PM 3 in May 2017. These federal rulemakings also included guidelines for the setting of performance targets for the various measures, and for reporting on progress being made toward achievement of the targets.

In consultation with the state’s MPOs, Caltrans is required to establish statewide targets for each of the designated federal performance measures included within the three federal performance management categories. The MPOs, including SCAG, are then provided the option to either agree to support the statewide targets, establish numerical targets specific to the region, or employ a

combination of both. Regardless of the option chosen, the MPOs were given 180 days from the date of Caltrans' adoption of the statewide targets to submit its regional performance targets.

Safety Performance Measures (PM 1)

FHWA issued the National Performance Management Measures: Safety Performance Management Measures Final Rule, effective April 2016, to establish performance measures for State Departments of Transportation (DOTs), including Caltrans, to carry out the Highway Safety Improvement Program (HSIP). The Final Rule required State DOTs to work with MPOs to assess fatalities and injuries on all public roads, regardless of ownership or functional classification. Specifically, the Final Rule established the following five performance measures using five-year rolling averages for:

- Total Number of Fatalities
- Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
- Total Number of Serious Injuries
- Rate of Serious Injuries per 100 million VMT
- Total Number of Non-Motorized Fatalities & Non-Motorized Serious Injuries

In February 2020, SCAG's Regional Council adopted the Transportation Safety (PM 1) targets for Calendar Year 2020, which were consistent with, and supportive of, the statewide targets established by Caltrans. SCAG established its regional targets using the same methodology employed by Caltrans for developing the statewide targets. This methodological consistency allows SCAG to more accurately monitor our regional transportation safety performance relative to the statewide targets.

The Calendar Year 2020 transportation safety targets are as follows:

- Total Number of Fatalities: **1,607**
- Rate of Fatalities per 100 million VMT: **0.96**
- Total Number of Serious Injuries: **5,736**
- Rate of Serious Injuries per 100 million VMT: **3.42**
- Total Number of Non-Motorized Fatalities & Non-Motorized Serious Injuries: **1,916**

Because the Transportation Safety (PM 1) targets are updated annually, both Caltrans and SCAG are provided the opportunity to revisit and update the targets each calendar year.

Pavement & Bridge Condition Measures (PM 2)

Federal rulemaking in support of both the PM 2 (pavement/bridge condition) and PM 3 (NHS performance/freight/CMAQ) sets of performance measures were finalized in May 2017. Caltrans, in coordination with the state's MPOs (including SCAG), established statewide two-year and four-year targets for each of the performance metrics within these two groups.

As with the PM 1 set of performance measures, SCAG was provided the option to either adopt the statewide targets for our region, or to submit a set of regional targets for any or all of the metrics included within these two PM groups. Since SCAG had worked closely with Caltrans and the other major MPOs in the state to provide guidance in the development process of the statewide targets for the PM 2 and PM 3 measures, SCAG opted to adopt the statewide targets for our region.

The performance measures for National Highway System (NHS) pavement and bridge condition (PM 2) include:

- Percentage of Interstate System pavement in ‘Good’ condition
- Percentage of Interstate System pavement in ‘Poor’ condition
- Percentage of non-interstate NHS pavement in ‘Good’ condition
- Percentage of non-interstate NHS pavement in ‘Poor’ condition
- Percentage of NHS bridges in ‘Good’ condition
- Percentage of NHS bridges in ‘Poor’ condition

Performance of NHS, Freight, & CMAQ Measures (PM 3)

- Percentage of reliable person-miles traveled on the Interstate System
- Percentage of reliable person-miles traveled on the non-interstate NHS
- Annual hours of peak hour excessive delay per capita
- Percentage of Interstate System mileage reporting reliable truck travel times
- Percentage of non-single occupancy vehicle (non-SOV) travel mode
- Total regional emissions reduction by applicable pollutants under the CMAQ program

MAP-21 Transit Performance Measures

MAP-21 established two sets of transit system performance measures, for Transit Asset Management (TAM) and for the Public Transportation Agency Safety Plan (PTASP). The Federal Transit Administration (FTA) issued the TAM Final Rule (49 CFR 625), effective October 1, 2016. The Final Rule requirements for TAM apply to all recipients and subrecipients of Federal financial assistance under 49 USC Chapter 53 that own, operate, or manage capital assets used for providing public transportation.

Transit Asset Management (TAM)

Although SCAG is the designated recipient of certain FTA funds, it does not own, operate, or manage capital assets used for providing public transportation. However, SCAG does have responsibilities for TAM as part of the Regional Transportation Plan (RTP) development under the Metropolitan Planning Final Rule (23 CFR 450). Regional TAM performance targets must be established every four years as part of the RTP. Additionally, MPOs must integrate into their RTP, either directly or by reference, the goals, objectives, performance measures, and targets from the regional transit providers’ TAM plans.

The Final Rule requires transit providers to develop TAM plans every four years and to establish annual TAM targets for the set of State of Good Repair (SGR) transit system asset performance measures shown in Table 1.

Table 1. TAM Asset Categories & Performance Measures

Asset Category	SGR Performance Measure
Rolling Stock	Percentage of revenue vehicles exceeding useful life benchmark (ULB)
Equipment	Percentage of non-revenue service vehicles exceeding ULB
Facilities	Percentage of facilities rated under 3.0 on the Transit Economic Requirements Model (TERM) scale
Infrastructure	Percentage of track segments under performance restriction

For equipment and rolling stock classes, the 'Useful Life Benchmark' (ULB) is defined as the expected lifecycle of a capital asset, or the acceptable period of use in service, for a transit provider's operating environment. ULB considers a provider's unique operating environment such as geography and service frequency and is not the same as an asset's useful life.

Public Transit Safety

The Public Transportation Agency Safety Plan (PTASP) Final Rule was published on July 19, 2018 with an effective date of July 19, 2019. The Rule requires states and some public transportation providers that receive Federal assistance under 49 U.S.C. Chapter 53 to develop a PTASP based on the Safety Management Systems (SMS) approach and requires MPOs, State DOTs, and transit providers to collaborate, to the maximum extent feasible, on the development of statewide and regional (MPO) public transportation system safety performance targets. The development and implementation of the PTASP is intended to ensure the safety of public transportation systems nationwide.

The Final Rule applies to all operators of public transportation that are recipients or sub-recipients of FTA Urbanized Area Formula Grant Program funds under 49 U.S.C. Chapter 53, and to rail transit agencies that are subject to the FTA State Safety Oversight (SSO) Program. Commuter rail agencies regulated by the Federal Railroad Administration (FRA), ferries, and recipients that receive only Section 5310 and/or 5311 funds are not required to develop a safety plan.

Transit providers subject to the rule must certify they have a plan in place, initially by July 20, 2020. However, with the issuance of FTA's Notice of Enforcement Discretion the compliance deadline has been extended to December 31, 2020. MPOs have 180 days from the receipt of the agency performance targets to prepare the initial regional safety targets. As with the TAM targets, MPOs are required to integrate the safety targets in the RTP. Transit agencies are required to review and certify their PTASP and targets annually. The safety targets for the Transit Safety Performance Measures in the PTASP will be based on the safety performance measures established in the National Public Transportation Safety Plan (NTPSP). These measures include:

1. Total number of reportable fatalities
2. Rate of reportable fatalities per total vehicle revenue miles by mode
3. Total number of reportable injuries
4. Rate of reportable injuries per total vehicle revenue miles by mode
5. Total number of reportable safety events
6. Rate of reportable events per total vehicle revenue miles by mode
7. System reliability: Mean distance between major mechanical failures by mode

SCAG is currently working with the county transportation commissions and the Regional Transit Technical Advisory Committee (RTTAC) to develop and refine the target setting methodology, which will be applied to the targets submitted by the operators. Once SCAG establishes the final transit safety targets in 2021, progress towards meeting these targets will be reported in subsequent future RTPs and FTIPs in accordance with federal requirements.

Table 2. Regional Public Transit Safety Targets

Performance Measure	Initial Safety Target
Total fatalities (by mode)	(Pending)
Rate of fatalities per vehicle revenue miles (by mode)	
Total injuries (by mode)	
Rate of injury per vehicle revenue miles (by mode)	
Total transit safety events (by mode)	
Rate of transit safety events per vehicle miles (by mode)	
Mean distance between major mechanical failures (by mode)	

MAP-21 Performance Reporting

The MAP-21 federal performance monitoring cycle is based on four-year reporting periods. The initial four-year performance reporting period began on January 1, 2018 and will end on December 31, 2021. Two years into the performance reporting period, Caltrans, as the State DOT, will be required to submit to FHWA a Mid Performance Period Progress Report, detailing progress that has been made toward achieving the statewide targets. At this point, statewide and regional targets may be adjusted to account for new data or changes in state or regional conditions that may impact the performance trajectory for any of the federal performance measures.

The MAP-21 federal performance management process begins with the State DOT (Caltrans) establishing and reporting on statewide baseline conditions, describing how the state is performing within each of the designated performance monitoring categories and the federally designated performance measures. This baseline conditions report provides the basis for evaluating progress being made within these focal areas over the four-year federal performance reporting period. Caltrans submitted its initial statewide Existing Conditions report to FHWA in October 2018.

At the conclusion of each four-year performance reporting period, Caltrans must submit to FHWA a Full Performance Period Progress Report. This report documents the investment strategies, current conditions, and quantitative progress made toward achieving each of the federal performance targets. Based on the progress reports, FHWA will evaluate and determine whether the State has demonstrated ‘significant’ progress toward achievement of its performance targets.

Transportation Safety

The Calendar Year 2019 transportation safety targets were set in February 2020. SCAG is required to review projects included in the FTIP to assess whether they are anticipated to result in improved safety conditions and therefore fewer serious injuries and fatalities. Examples of such projects include:

- Projects that correct, improve, or eliminate a hazardous location or feature
- Safer non-Federal-aid system roads
- Shoulder improvements
- Increasing sight distance
- Highway Safety Improvement Program (HSIP) implementation
- Traffic control devices and operating assistance other than signalization projects
- Railroad/highway crossing warning devices
- Guardrails, median barriers, crash cushions
- Pavement resurfacing and/or rehabilitation
- Pavement marking
- Emergency relief
- Fencing
- Skid treatments
- Safety roadside rest areas
- Adding medians
- Truck climbing lanes outside the urbanized area
- Lighting improvements
- Widening narrow pavements or reconstructing bridges (no additional travel lanes)
- Emergency truck pullovers

Based on a review of the projects included in the 2021 FTIP, there are more than 500 projects that are anticipated to result in transportation safety benefit. Further, the investments programmed in the 2021 FTIP for safety-related projects totals nearly \$3 billion, as shown in Table 3.

Table 3. 2021 FTIP Highway Safety Investments by County (\$1,000s)

County	Safety Projects Programming	All Projects Programming	% of Total Programming
Imperial	\$5,893	\$67,447	8.7%
Los Angeles	\$1,793,846	\$20,151,569	8.9%
Orange	\$231,153	\$2,308,037	10.0%
Riverside	\$308,732	\$7,282,415	4.2%
San Bernardino	\$268,968	\$4,262,912	6.3%
Ventura	\$294,526	\$1,152,430	25.6%
SCAG Region	\$2,903,118	\$35,224,810	8.2%

SCAG anticipates that, with its on-going work with the Transportation Safety Group on development of a Regional Safety Strategy and High Injury Network, the region will continue to make progress toward achieving its annual safety targets.

Transit System Performance

One of the two public transit performance elements is the regional Transit Asset Management (TAM) assessment. SCAG worked with the transit providers and RTTAC to refine the methodology for setting the regional TAM targets included in 2020 RTP/SCS (Connect SoCal). The TAM targets (Table 4) included in Connect SoCal reflect SCAG's commitment to ensuring the SGR of the region's transit assets. As part of the target setting process, SCAG reviewed and considered the transit providers' TAM plans, which include identified goals, objectives, measures and targets, and incorporated them into the Metropolitan planning process.

The TAM performance targets specified in Connect SoCal assist the transit agencies to creatively maintain assets at acceptable performance conditions that will not degrade existing levels. It is important to note that the Connect SoCal TAM targets should be considered aspirational, as substantial investments are needed to meet the targets over the 25-year planning period.

Table 4. Regional Transit Asset Management (TAM) Targets

County/Agency	2019 Targets			
	Rolling Stock (% of revenue vehicles > ULB)	Equipment (% of non-revenue vehicles > ULB)	Facilities (% of facilities < TERM scale 3)	Infrastructure (% of track segments with restrictions)
Imperial	0.0%	N/A	N/A	N/A
Los Angeles	16.0%	27.7%	6.4%	1.5%
Orange	11.7%	18.6%	0.0%	N/A
Riverside	3.8%	17.9%	22.1%	N/A
San Bernardino	22.2%	27.7%	26.3%	N/A
Ventura	6.3%	25.0%	0.0%	N/A
Metrolink	10.0%	22.7%	33.3%	15.0%
SCAG Region	14.8%	26.1%	10.3%	11.5%

As part of the scenario analysis conducted in determining the targets shown in Table 4, SCAG estimated about \$23 billion would be needed to maintain current transit assets in a State of Good Repair (SGR) over the 25-year RTP planning period (2020 to 2045). Based on the FTIP, projects submitted to SCAG by the county transportation commissions, and information provided by project lead agencies, the total TAM-related investments in the 2021 FTIP totals more than \$2.5 billion, funding which is directly related to improving transit assets in the region. Table 5 summarizes the various projects included in the 2021 FTIP that are designed to improve the SGR of transit assets in the SCAG region.

Table 5. Comparison of FTIP Projects with Annual Asset Replacements

TAM Asset Category	Total Projects Programmed	Annual Number of Assets to be Replaced
Revenue Vehicles (total number of replacements)	2,121	630
Non-Revenue Vehicles (total number of replacements)	0	190
Facilities (total number of facilities to be upgraded from poor/marginal to adequate/better condition)	20	21
Infrastructure (current route track miles with performance restrictions eliminated)	3	-

The TAM targets for the SCAG region were included in the adopted 2020 RTP/SCS (Connect SoCal). All future RTPs are required to report on progress achieved toward meeting these regional targets in comparison with transit system performance recorded in previous reports (23 CFR 450.324(f)(4)(i)). Additionally, future FTIPs must describe the anticipated effect of the investments included in the FTIP toward achieving the TAM targets set in the RTP, linking investment priorities to those targets (23 CFR 450.326(d)). SCAG will require information from lead agencies as part of future RTP and FTIP development and project submittal processes to support these new reporting requirements.

SCAG’s approach to assessing and describing the progress made by the 2021 FTIP toward achievement of our regional TAM targets is based on the identification of programmed investments in the FTIP that support the rehabilitation and replacement of regional transit assets.

Table 6 identifies the total amounts programmed in the 2021 FTIP by TAM program category.

Table 6. 2021 FTIP Programmed TAM-Related Investments (\$1,000s)

TAM Project Category	Total FTIP Programming
Administrative Office/Facility Rehab/Improvement	\$10,444
Bus Rehabilitation/Improvement	\$238,279
Bus Replacement	\$1,889,197
Paratransit Vehicle Replacement	\$51,992
Administrative Equipment Upgrade/Rehab	\$2,699
Track Structures Rehabilitation/Reconstruction	\$183,863
Track Replacement/Rehabilitation	\$19,111
Passenger Stations/Facilities Rehab/Improvement	\$125,002
TAM Projects Total	\$2,521,287

Pavement & Bridge Condition (PM 2)

Performance Management Group 2 (PM 2) focuses on pavement and bridge condition on the National Highway System (NHS). In California, the NHS is owned and operated by Caltrans in conjunction with local jurisdictions. The NHS includes the Interstate Highway System plus other major roadways, such as principal arterials, that are considered to be of particular importance to the nation’s economy, defense, and mobility. NHS pavement condition is especially critical in the SCAG region, since 20 percent of the state’s non-interstate pavement is located within our region.

Table 7 shows baseline 2017 non-interstate NHS pavement condition status by county in the SCAG region. The SCAG region includes a total of nearly 12,000 non-interstate NHS lane miles. Of that total, 3.7 percent was classified as being in ‘Good’ condition; 82.0 percent in ‘Fair’ condition; and 14.4 percent in ‘Poor’ condition in 2017. These 2017 baseline figures will be used to evaluate future progress toward achievement of PM 2 targets for non-interstate NHS pavement condition.

Table 7: National Highway System (NHS) Non-Interstate Pavement Condition

County	Total Lane Miles	Pavement Lane Miles Condition					
		Good		Fair		Poor	
Imperial	288	49	17.0%	168	58.4%	71	24.6%
Los Angeles	6,355	109	1.7%	5,076	79.9%	1,170	18.4%
Orange	2,793	132	4.7%	2,446	87.6%	215	7.7%
Riverside	662	43	6.5%	560	84.7%	58	8.8%
San Bernardino	1,047	60	5.8%	871	83.1%	116	11.1%
Ventura	514	34	6.5%	437	85.0%	44	8.5%
SCAG Region	11,658	426	3.7%	9,558	82.0%	1,675	14.4%

Table 8 shows the statewide performance targets developed by Caltrans for NHS pavement and bridges located within the SCAG region. Non-interstate NHS pavements within the SCAG region are expected to show moderate improvement over the performance period, with 3.7 percent considered to be in 'Good' condition in 2017, and targets of 4.0 percent after two years and 4.7 percent after four years. Likewise, the percentage of non-interstate pavements in the SCAG region classified as being in 'Poor' condition is expected to gradually decrease, from 14.4 percent in 2017, to 13.8 percent after two years, and down to 12.7 percent after four years.

Table 8: Statewide NHS Pavement & Bridge Condition Targets - SCAG Region

PM 2 Statewide Performance Measures	Existing (2017)		2-Year Targets				4-Year Targets			
			(1/1/19 - 12/31/19)				(1/1/20 - 12/31/21)			
	Good	Poor	Good	Change	Poor	Change	Good	Change	Poor	Change
Non-Interstate NHS Pavement	3.7%	14.4%	4.0%	+0.3%	13.8%	-0.6%	4.7%	+1.0%	12.7%	-1.7%
NHS Bridges	36.1%	14.8%	37.9%	+1.8%	14.0%	-0.8%	41.4%	+5.3%	12.4%	-2.4%

The statewide performance targets also anticipate steady improvement of NHS bridge condition in the SCAG region. In 2017, 36.1 percent of SCAG region bridges were classified as being in 'Good' condition, with a two-year performance target of 37.9 percent, and a four-year target of 41.4 percent. In 2017, 14.8 percent of NHS bridges in the SCAG region were classified as being in 'Poor' condition, with Caltrans targets of 14.0 percent after two years, and down to 12.4 percent at the conclusion of the four-year reporting period. Please note that about 82 percent of Interstate System pavement and 49 percent of NHS bridges in the SCAG region were classified as being in 'Fair' condition in 2017.

The initial statewide targets for the PM 2 performance measures were released by Caltrans in May 2018. Federal rulemaking allowed SCAG and other MPOs in the state to determine whether to adopt the statewide targets for implementation within their region or to develop their own set of regionally specific performance targets. SCAG opted to support the statewide PM 2 targets for the initial reporting period.

For the mid-term performance assessment, which is required to be reported in October 2020, Caltrans and SCAG were provided the option to adjust the four-year performance targets for each of the pavement and bridge condition measures. As many of the investments planned to improve infrastructure condition at both the state and regional level are multi-year endeavors which have not yet been completed, Caltrans and SCAG both opted to maintain the current four-year targets for the state and the region, respectively, as indicated in Tables 7 and 8.

Reflective of the final regional PM 2 targets, projects and funding to support highway pavement and bridge improvements are prominently funded in the 2021 FTIP, as shown in Table 9.

Table 9: 2021 FTIP Highway Pavement & Bridge Investments (\$1,000s)

Category	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Bridge Improvements	\$63,921	\$159,885	\$12,897	\$16,180	\$68,506	\$61,455	\$382,844
Highway Operations & Maintenance	\$4,778,377	\$1,893,868	\$94,425	\$126,490	\$675,627	\$11,500	\$7,580,287
Total PM 2 Related FTIP Investments	\$4,842,298	\$2,053,753	\$107,322	\$142,670	\$744,133	\$72,955	\$7,963,131

Performance Management Group 3 (PM 3) provides a set of six specific measures to evaluate NHS System Performance, Freight, and the CMAQ program. As shown in Table 10, statewide PM 3 performance targets anticipate modest but steady improvement for each of the travel time reliability performance indicators. In 2017, 64.6 percent of total person-miles of travel on the Interstate System was considered reliable. Caltrans established statewide interstate travel time reliability targets of 65.1 percent after two years, then up to 65.6 percent after four years. On the non-interstate NHS, 73.0 percent of total person miles traveled were considered reliable in 2017. Caltrans introduced a statewide target of 74 percent after four years. A two-year non-interstate travel time reliability target was not required for the initial MAP-21 performance reporting cycle.

Truck travel time reliability is reported using the 'Truck Travel Time Reliability Index' (TTTRI), which is a value calculated as the ratio of the 95th percentile truck travel time (least reliable travel time) by the normal (50th percentile) travel time along a specific highway segment. A higher TTTRI value represents a less reliable travel time, therefore a lower value indicates improvement in reliability. In 2017, the statewide TTTRI was 1.69. Caltrans has developed targets for moderate truck travel time reliability improvement over the reporting cycle, to 1.68 after two years and down to 1.67 after four years.

For the CMAQ program emissions reduction performance measures, Caltrans has established statewide targets that reflect small increases for each of the criteria pollutants amounting to 1.0 percent after two years, and 2.0 percent after four years.

The two CMAQ traffic congestion performance measures, 'Annual Hours of Peak Hour Excessive Delay' and 'Percent of Non-Single Occupancy Vehicle Travel' are applicable only to the two U.S. Census designated 'Urban Areas' within the SCAG region that have populations exceeding one million. These Urban Areas include 'Los Angeles/Long Beach/Anaheim' and 'Riverside/San Bernardino'. MAP-21 requires that Caltrans and SCAG coordinate on the establishment of a single, unified set of targets for these two CMAQ traffic congestion measures for each of the SCAG region's two designated Urban Areas. The two CMAQ traffic congestion measures, and

the associated two-year and four-year unified targets for the two Urbanized Areas in the SCAG region are shown in Table 10.

In the Los Angeles/Long Beach/Anaheim Urban Area, per capita hours of peak hour excessive delay was reported at 51.7 hours in 2017. The 2017 value was reported at 16.3 hours for the San Bernardino/Riverside Urban Area. Choosing a conservative approach for the initial reporting cycle, Caltrans and SCAG agreed that a 1.0 percent improvement after four years for both of SCAG's Urban Areas would be appropriate. The same conservative approach was followed in developing targets for the 'Non-Single Occupancy Vehicle Travel' measure, with a 0.5 percent increase after two years, and 1.0 percent increase at the conclusion of the four-year performance reporting period for both Urban Areas in the SCAG region.

As indicated in Table 10, the observed performance in the SCAG region for the PM 3 metrics, 'Percent of Reliable Person-Miles Traveled on the Interstate System', and 'Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS', each demonstrated increases, representing early achievement of our four-year regional targets. However, the 'Truck Travel Time Index', which evaluates truck travel time efficiency, showed an increase since 2017 (1.69 to 1.72), indicating that more work needs to be done to achieve our 'Percent of Interstate System Mileage Providing Reliable Truck Travel Time' performance target.

Observed performance of the 'Annual Hours of Peak Hour Excessive Delay per Capita' metric for both Urban Areas in the SCAG region also showed improvement since 2017, with 2018 observed values also achieving their respective four-year targets. For the 'Non-Single Occupancy Vehicle (Non-SOV) Mode Share' PM 3 performance measure, modest decreases were observed in 2018 for both the Los Angeles/Long Beach/Anaheim and the Riverside/San Bernardino Urban Areas, representing another area where additional effort will be required to achieve our four-year targets.

Please note that two of the PM 3 performance measures, 'Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS' and 'Annual Hours of Peak Hour Excessive Delay per Capita', required only the establishment of a four-year target for the initial MAP-21 performance reporting cycle.

Table 10: Statewide PM 3 Performance Targets

Performance Measure	2017 Baseline	2-Year Target	4-Year Target	2018	2017-18 Change	Trend
Percent of Reliable Person-Miles Traveled on the Interstate System	64.6%	65.1% (+0.5%)	65.6% (+1.0%)	65.6%	+1.0%	Good
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	73.0%	N/A	74.0% (+1.0%)	74.9%	+1.9%	Good
Percent of Interstate System Mileage Providing Reliable Truck Travel Time	1.69	1.68 (-0.01)	1.67 (-0.02)	1.72	+0.03	Needs Improvement
Total Emissions Reductions by Applicable Pollutants Under CMAQ Program						
VOC (kg/day)	951.83	961.35 (+1.0%)	970.87 (+2.0%)	N/A		Data to be provided by ARB
CO (kg/day)	6,863.26	6,931.90 (+1.0%)	7,000.54 (+2.0%)	N/A		
NOx (kg/day)	1,753.36	1,770.89 (+1.0%)	1,788.43 (+2.0%)	N/A		
PM10 (kg/day)	2,431.21	2,455.52 (+1.0%)	2,479.83 (+2.0%)	N/A		
PM2.5 (kg/day)	904.25	913.29 (+1.0%)	922.34 (+2.0%)	N/A		
Annual Hours of Peak Hour Excessive Delay per Capita	<i>Caltrans & SCAG coordinate on a single, unified 4-year target</i>					
Los Angeles-Long Beach-Anaheim Urban Area	51.7 Hours	N/A	51.2 (-1.0%)	51.1 Hours	-0.6 Hours	Good
Riverside-San Bernardino Urban Area	16.3 Hours	N/A	16.1 (-1.0%)	16.0 Hours	-0.3 Hours	Good
Non-Single Occupancy Vehicle (Non-SOV) Travel Mode Share	<i>Caltrans & SCAG coordinate on a single, unified set of 2-year & 4-year targets</i>					
Los Angeles-Long Beach-Anaheim Urban Area	25.6%	26.1% (+0.5%)	26.6% (+1.0%)	25.3%	-0.3%	Needs Improvement
Riverside-San Bernardino Urban Area	22.7%	23.2% (+0.5%)	23.7% (+1.0%)	22.5%	-0.2%	Needs Improvement

The initial statewide targets for the PM 3 performance measures were released by Caltrans in May 2018. Federal rulemaking allowed SCAG and other MPOs in the state to subsequently determine whether to adopt the statewide targets for implementation within our region or to develop our own set of regionally specific performance targets. Since SCAG was actively involved

in the development of the statewide PM 3 targets, SCAG opted to support the statewide targets for the initial performance reporting period.

For the mid-term performance assessment, which is required to be reported to FHWA by Caltrans in October 2020, Caltrans and SCAG were provided the option to adjust the four-year targets for each of the PM 3 measures. Caltrans and SCAG have both opted to maintain the current four-year targets for the state and the region, respectively, as shown in Table 10.

Reflective of these regional PM 3 performance targets, regional investments supportive of improved NHS performance, freight movement, air quality, congestion, delay, and non-single occupancy vehicle travel are very robustly programmed in the 2021 FTIP, as shown in Table 11.

Table 11: 2021 FTIP PM 3 Related Projects Funding Summary (\$1,000s)

Project Category	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Auxiliary, Passing, Truck Climbing Lanes	\$6,990	\$0	\$5,500	\$0	\$0	\$0	\$12,490
Bridge Improvements	\$63,921	\$159,885	\$12,897	\$16,180	\$68,506	\$61,455	\$382,844
Capacity Enhancing Improvements	\$543,494	\$1,037,522	\$1,077,968	\$1,326,739	\$2,064,506	\$2,748,920	\$8,799,149
Grade Separations	\$331,257	\$101,860	\$7,272	\$132,760	\$0	\$0	\$573,149
HOV Lanes	\$260,130	\$289,317	\$78,700	\$34,400	\$40,200	\$18,000	\$720,747
Interchange, ramps, over/undercrossing	\$505,077	\$361,969	\$280,540	\$216,517	\$228,010	\$353,570	\$1,945,683
Non-Capacity Improvements	\$187,767	\$106,102	\$40,129	\$26,673	\$2,180	\$4,000	\$366,851
Highway Improvements Subtotal	\$1,898,636	\$2,056,655	\$1,497,506	\$1,758,769	\$2,403,402	\$3,185,945	\$12,800,913
ITS	\$163,959	\$38,025	\$9,625	\$2,630	\$0	\$0	\$214,239
Bicycle & Pedestrian Facilities	\$265,473	\$113,152	\$142,471	\$52,859	\$5,473	\$585	\$580,013
Rideshare	\$7,138	\$5,456	\$995	\$1,035	\$710	\$789	\$16,123
TDM, Park & Ride	\$22,654	\$5,792	\$5,387	\$5,452	\$5,520	\$5,589	\$50,394
ITS, TDM, & Non-Motorized Subtotal	\$459,224	\$162,425	\$158,478	\$61,976	\$11,703	\$6,963	\$860,769
Total: All PM 3 Related Projects	\$2,357,860	\$2,219,080	\$1,655,984	\$1,820,745	\$2,415,105	\$3,192,908	\$13,661,682