



## BCAG BOARD OF DIRECTORS

## Item #6 Consent

April 27, 2023

### **APPROVAL OF PERFORMANCE MEASURES – RELIABILITY, CONGESTION, AND AIR QUALITY (PM3)**

**PREPARED BY:** Brian Lasagna, Regional Analyst

**ISSUE:** As the federally designated Metropolitan Planning Organization (MPO) for the Butte County region, BCAG is required to establish targets, track, and report the areas performance measures mandated under MAP-21, in coordination with Caltrans and the local jurisdictions.

**DISCUSSION:** Federal transportation legislation (MAP-21) placed new and stronger emphasis on measuring and monitoring the performance of the transportation system and requires states and MPOs to implement a performance-based approach to planning and programming. Performance-based planning and programming includes using transportation performance measures, setting targets, reporting performance, and programming transportation investments directed toward the achievement of transportation system performance outcomes. The performance targets ensure states and MPOs invest resources in transportation projects that achieve national goals in safety, infrastructure condition, congestion, reliability, freight movement, environmental sustainability, and reduced project delivery delays.

#### System Performance Management – Performance Measure 3 (PM3)

On December 16, 2022, Caltrans approved the statewide system performance targets for travel reliability, congestion, and air quality along the National Highway System (NHS). The statewide targets were established based on an iterative process and coordination between Caltrans, MPOs, CALCOG, and the California State Transportation Agency. In developing the statewide targets, Caltrans coordinated with the MPO's through the utilization of a Technical Advisory Group (TAG). The TAG participated in several workshops and other key stakeholder meetings. Table 1 contains the PM3 targets applicable to the BCAG region for the 2 and 4-year target periods.

**Table 1. Statewide System Performance (PM3)**

System Performance Measure*	Baseline 2021	2-Year Target	4-Year Target
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	83.7%	84.2% (+0.5%)	84.7% (+1%)
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program	2018-2021 Baseline		
VOC (kg/day)	2,551	2,862	5,724
CO (kg/day)	21,771	12,798	25,596
NOx (kg/day)	7,213	4,317	8,635
PM10 (kg/day)	3,830	2,152	4,305
PM2.5 (kg/day)	1,537	1,830	3,659

\*Applicable to BCAG Region

MPOs have 6 months (May 16, 2023) following the states target setting date to: A) establish their own targets; or B) agree to plan and program projects so that they contribute toward the accomplishment of the state target. Performance and targets are reviewed by the state every two years.

BCAG staff has prepared a discussion of each system performance measure and included as Attachment A.

The 2020 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) includes a listing of federal performance measure reliability and congestion projects which have been planned or programmed for the region. A link to Appendix 10-6 of the 2020 RTP/SCS is included [here](#)<sup>1</sup>.

Staff is recommending that BCAG agree to plan and program projects so that they contribute toward the accomplishment of the state target for the 2022 performance year. Targets are reviewed with BCAG’s Transportation Advisory Committee and BCAG Board bi-annually and reported to Caltrans.

**STAFF RECOMMENDATION:** BCAG staff is recommending that the BCAG Board of Director’s approve the state targets and the region agree to plan and program projects so that they contribute toward the accomplishment of the state performance targets for the 2022 performance year.

Key Staff: Brian Lasagna, Regional Analyst  
Ivan Garcia, Programming Director

<sup>1</sup><http://www.bcag.org/documents/planning/RTP%20SCS/2020%20RTP%20SCS/Appendices/Appendix%2010-6%20PM%203%20Freight%20Congestion%20Final%20October%202020.pdf>

**ATTACHMENT - A**

**PM3 – System Performance**

On January 18, 2017, the Federal Highway Administration (FHWA) published a final rule in the Federal Register (82 FR 5970) establishing performance measures that State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) will use to report on the performance of the Interstate and Non-Interstate National Highway System (NHS) to carry out the National Highway Performance Program (NHPP) and traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

Caltrans set 2- and 4-year statewide targets on December 16, 2022. MPOs shall establish a target six months after State DOTs establish targets (May 16, 2022) by either: 1) Agreeing to plan and program projects so that they contribute toward the accomplishment of the State DOT system performance target for that performance measure; or 2) Committing to a quantifiable target for that performance measure for their metropolitan planning area.

The statewide targets were established based on an iterative process and coordination between Caltrans, MPOs, CALCOG, and the California State Transportation Agency. In developing the statewide targets, Caltrans coordinated with the MPO's through the utilization of a Technical Advisory Group (TAG). The TAG participated in several workshops and other key stakeholder meetings.

PM3 contains six specific measures, only two of which are applicable to the BCAG region – see Table 1 below.

Table 1. PM3 Performance Measures

<b>System Performance Measure</b>	<b>Applicable to BCAG?</b>	<b>Reason</b>
Percent of Reliable Person-Miles Traveled on the Interstate	NO	No Interstates traverse BCAG region.
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	YES	BCAG region contains several roadways on the Non-Interstate NHS.
Percentage of Interstate System Mileage Providing Reliable Truck Travel Time (Truck Travel Time Reliability Index)	NO	No Interstates traverse BCAG region.
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program	YES	BCAG region is designated as "non-attainment" for Ozone under federal air quality standards.
Annual Hours of Peak-Hour Excessive Delay Per Capita	NO	Measures only apply to regions with urbanized areas containing a population greater than 200,000.
Percent of Non-Single Occupancy Vehicle (Non-SOV) Travel	NO	

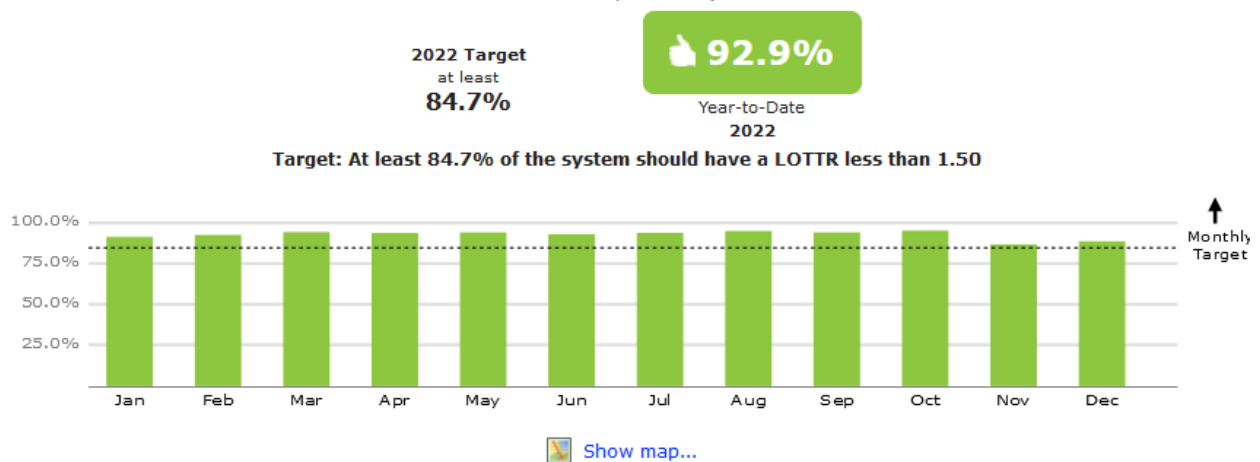
Data Review

**Percent of Reliable Person Miles Traveled on the Non-Interstate NHS:** Caltrans has developed an application within the National Performance Management Research Data Set (NPMRDS) Analytics tool. The tool allows MPOs to determine the overall Level of Travel Time Reliability (LOTTR) within their regions. The data for Travel Time Reliability in the BCAG region for year 2022 is shown in Figure 1.

**Figure 1. Travel Time Reliability in BCAG Region**

**CA - Butte County Association of Governments, Chico (BCAG)**

MAP-21 Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable (the Non-Interstate NHS Travel Time Reliability measure)



Calculated using 100.00% of miles in Butte County Association of Governments

Data source: NPMRDS INRIX

The data for each region’s non-interstate NHS was aggregated to the statewide level and used to establish the 2- and 4-year targets (shown in Table 2 below).

**Table 2. Travel Time Reliability Measure for Non-Interstate NHS**

System Performance Measure*	Baseline 2021	2-Year Target	4-Year Target
Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS	83.7%	84.2% (+0.5%)	84.7% (+1%)

Source: Caltrans Division of Transportation Planning

**Total Emissions Reductions by Applicable Pollutants under the CMAQ Program:**

Caltrans utilized the CMAQ Public Access System ([https://fhwaapps.fhwa.dot.gov/cmaq\\_pub/](https://fhwaapps.fhwa.dot.gov/cmaq_pub/)) in establishing baseline pollutant numbers for target setting purposes. As of January 2023, nine projects are included for the Butte County region which are listed in Table 3.

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**Table 3. Projects included in CMAQ Performance Plan for Butte County**

YEAR	PROJECT TITLE	PROJECT DESCRIPTION	VOC (kg/day)	CO (kg/day)	NOx (kg/day)	PM10 (Kg/Day)	PM2.5 (Kg/Day)
2021	Chico – Hegan Lane Business Park Access Improvements	Congestion Reduction		0.091	0.399		
2021	Butte County – Autry Lane, Monte Vista & Lower Wyandotte Safe Routes to Schools	Safety Program		1.66	0.12		0.033
2020	Biggs – 2 <sup>nd</sup> St	Safety Program	0.01		0.03		
2019	Gridley – Central Gridley Pedestrian Connectivity and Equal Access Project	Safety Program	0.03		0.02		0.01
2019	Butte County – Palermo/South Oroville SRTS Project Phase 3	Safety Program	0.02	0.17	0.01		0.01
2019	Paradise – ATP Gap Closure Project	Safety Program	0.03	0.11	0.02	0.01	
2019	Paradise – ATP Gateway Project	Safety Program	0.18		0.18	0.14	
2019	Paradise – Oliver Curve Class I Phase 1	Safety Program	0.03		0.03	0.03	
2019	Paradise – Pentz Road Trailway Phase 2	Safety Program	0.05		0.05	0.04	
Total Emission Benefits			0.35	2.031	0.859	0.22	0.053

Caltrans aggregated all data available in the system to the statewide level and used it in establishing 2- and 4-year targets (shown in Table 4 below).

**Table 4. CMAQ Emission Reduction Measure**

System Performance Measure*	Baseline 2021	2-Year Target	4-Year Target
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program			
VOC (kg/day)	2,551	2,862	5,724
CO (kg/day)	21,771	12,798	25,596
NOx (kg/day)	7,213	4,317	8,635
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*\*Applicable to BCAG Region*

**PM3 Recommendation**

BCAG agrees to plan and program projects so that they contribute toward the accomplishment of the state target for the 2022 performance year.