

Sacramento Urbanized Area Congestion Mitigation and Air Quality Improvement Program Performance Plan

Baseline Performance Period Report, 2018-2021

October 1, 2018

Executive Summary

The Sacramento Area Council of Governments (SACOG) is the region's Metropolitan Planning Organization (MPO), with an urbanized area of more than 1 million people with non-attainment status, is responsible for sending Caltrans a "Congestion Mitigation and Air Quality Improvement Program (CMAQ) Implementation Plan," as required by the Federal Highway Administration (FHWA). This plan documents how SACOG's CMAQ funded projects support reaching Statewide CMAQ performance targets set by Caltrans in May 2018 for the performance period of 2018 through 2021. In October 2018, the SACOG Board will consider agreeing to plan and program projects so that they contribute toward the accomplishment of the established statewide targets.

CMAQ Performance Plans include four key components:

1. **Condition/Performance:** a baseline level of condition/performance at the beginning of the performance period for each of the CMAQ measures.
2. **Targets:** the targets that the MPOs establish for each of the applicable CMAQ performance measures.
3. **Description of projects:** a description of projects scheduled for CMAQ funding that will contribute toward achieving their targets.
4. **Assessment of progress:** an assessment of how the listed projects contribute toward achieving the targets for subsequent mid period (Oct 2020) and full period (Oct 2022) progress reports.

Introduction

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in 2012, included several provisions that collectively are transforming the Federal surface transportation program to be focused on the achievement of performance outcomes. The Fixing America's Surface Transportation (FAST) Act, signed in 2015, built on the MAP-21 changes and provided long-term funding certainty for surface transportation infrastructure planning and investment. The performance outcomes provisions, administered by different agencies within the U.S. Department of Transportation (USDOT), were implemented by rulemakings, including several under FHWA's purview. These rulemakings require Departments of Transportation (DOTs), MPOs, and transit agencies to establish performance targets for each of the following national goal areas:

- Safety Measures (PM1 - 23 CFR Part 490 Subparts A & B and Part 924)
- Pavement and Bridge Condition Measures (PM2 - 23 CFR Part 490 Subparts A, C, & D)
- Performance of National Highway System (NHS), Freight and CMAQ Measures (PM3 - 23 CFR Part 490 Subparts A, E, F, G, & H)
- NHS Asset Management Plan (23 CFR Part 515)

This CMAQ Performance Plan focuses on performance measures included in PM3 describing congestion reduction and emissions reductions.

Performance of National Highway System, Freight and CMAQ Measures (PM3)

On January 18, 2017, the FHWA published a final rule in the Federal Register (82 FR 5970) that established performance measures that State Departments of Transportation (DOTs) and MPOs will use to report on the performance of the Interstate and Non-Interstate NHS to carry out the National Highway Performance Program (NHPP); freight movement on the Interstate system to carry out the NHFP; and traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program. The rule addressed requirements established by the Moving Ahead for Progress in the 21st Century Act (MAP-21), and included six national performance measures related to System Performance (PM3), as follows:

- Percent of Reliable Person-Miles Traveled on the Interstate;
- Percent of Reliable Person-Miles Traveled on the Non-Interstate NHS;
- Percentage of Interstate System Mileage Providing Reliable Truck Travel Time (Truck Travel Time Reliability Index);
- Total Emissions Reductions by Applicable Pollutants under the CMAQ Program;
- Annual Hours of Peak-Hour Excessive Delay Per Capita (PHED); and
- Percent of Non-Single Occupancy Vehicle (Non-SOV) Travel.

Federal regulations require State Departments of Transportation (State DOTs) to establish and report annual targets related to each of these six performance measures by May 20th of each year. MPOs shall establish a target six months after State DOTs establish targets (November 16th) 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. In addition, State DOTs and MPOs with NHS mileage in applicable urbanized areas must agree to single, unified PM3 targets for the PHED and Non-SOV performance measures.

In preparation for PM3's 2018 target-setting effort, coordination between the California Department of Transportation (Caltrans) and MPOs occurred via guidance from Technical Advisory Group (TAG) meetings, which included members from MPOs and Caltrans, in-person/webcast workshops in 2017 and 2018, and other key stakeholder meetings. Table 1 lists specific meetings SACOG staff had with Caltrans and others to help set targets for PM3 performance measures.

Table 1. Caltrans meetings with SACOG to discuss PM3 performance measures

Date	Meeting	Communication
7/31/17	SACOG's Transportation Performance Measure Conversation Meeting	In-person (Sacramento) / Teleconference
4/30/18	PM3's MAP-21 Data Comparison Meeting (SACOG / MTC)	In-person (Sacramento)
5/10/18	PM3's Unified Target Meeting (SACOG)	Teleconference

CMAQ Program Condition and Performance Targets

On May 20, 2018, Caltrans presented its final statewide targets for PM3 (see Figure A, May 20, 2018 Letter from Caltrans Deputy Director Coco Briseno). Table 2 below shows the statewide traffic congestion and emission reduction 2017 baseline conditions, 2-year targets, and 4-year targets for the state and Sacramento urbanized area taken from Figure A.

Table 2. PM3 Traffic Congestion and Emission Reduction Targets

Performance Measure	2017 Baseline Data	2-year Target	4-year Target
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program			
Volatile Organic Compounds (VOC) (kg/day)	951.83	961.35 (+1%)	970.87 (+2%)
Carbon Monoxide (CO) (kg/day)	6,863.26	6,931.90 (+1%)	7,000.54 (+2%)
Nitric Oxide (NOx) (kg/day)	1,753.36	1,770.89 (+1%)	1,788.43 (+2%)
PM10 (kg/day)	2,431.21	2,455.52 (+1%)	2,479.83 (+2%)
PM2.5 (kg/day)	904.25	913.29 (+1%)	922.34 (+2%)
*Annual Hours of Peak-Hour Excessive Delay Per Capita (PHED)	State and MPO must coordinate on a single, unified 4-year target.		
Sacramento UA	14.9 Hours	N/A	14.7 (-1.0%)
*Percent of Non-Single Occupancy Vehicle (SOV) Travel	State and MPO must coordinate on a single, unified 2-year and 4-year target.		
Sacramento UA	22.8%	23.3% (+0.5%)	23.8% (+1%)

In October 2018, the SACOG Board will consider agreeing to plan and program projects so that they contribute toward the accomplishment of the established statewide targets.

Description of Projects

During the current performance period (2018-2021), 59 projects are expected to obligate CMAQ funds. A list of these projects is provided in Figure B, and includes a description of how each project is anticipated to contribute towards achieving the performance targets for traffic congestion and on-road mobile source emissions.

Since the statewide baseline conditions reflect CMAQ funded projects that first obligated CMAQ funds between 2014 and 2017, the projects listed in Figure B only reflect CMAQ funded projects during the 2018-2021 performance period.

FHWA notes that reporting emissions benefits for each CMAQ project is not required but “could discuss relevant estimates of emissions reductions in order to demonstrate how the projects will contribute to the relevant targets.” SACOG estimates and records CMAQ project emissions benefits as directed by the California Air Resources Board’s (ARB) 2005 guidance document, “Methods to Find the Cost-Effectiveness of Funding Air Quality Projects for Evaluating Motor Vehicle Registration Fee Projects and CMAQ Projects.” The emissions benefits calculated focus on VOC, NOx, PM10 and PM2.5 criteria pollutants. SACOG does not include estimates of CO emissions benefits at this time, but may do so in the future for traffic signal synchronization projects. The ARB guidance notes that “CO is a localized pollutant and not a regional pollution problem” where CMAQ projects are usually “funded primarily to reduce regional ozone and PM10 and have little impact on localized CO hot spots.” The Air Resources Board does note that “signal coordination projects, however, may be targeted at specific CO hot spots in CO nonattainment areas” and that “reporting CO emission reductions should be limited to targeted projects located in CO nonattainment or maintenance areas.”

Figure A, May 20, 2018 Letter from Caltrans Deputy Director Coco Briseno

DEPARTMENT OF TRANSPORTATION

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*Making Conservation
a California Way of Life.*

May 20, 2018

Dear California Transportation Partners:

I would like to thank you for helping to establish the California statewide two- and four-year targets that the California Department of Transportation (Caltrans) will use to report the performance of the Interstate and non-Interstate National Highway System, as required by Federal Regulation (23 U.S.C. 150).

The information provided by the California Metropolitan Planning Organizations (MPOs) was used to collaboratively establish targets for six of the performance measures, and individual discussions were held with each MPO with an urbanized area over one million to establish single, unified targets for two of the performance measures, as noted in the attached document.

With the availability of Senate Bill 1 and local measure funds, Caltrans holistically anticipates improved conditions over a four-year performance period. Given the project planning, design and construction timeframes involved, in a number of cases, this improved performance falls outside of the two- and four-year window being reported. The full benefits of this additional funding investment is expected to be realized beyond a four-year time horizon in many cases.

As stated in Federal Regulation (23 C.F.R. 490), you now have up to 180 days from the date of this letter to document with Caltrans whether you either support the statewide targets, or establish your own for your respective metropolitan planning areas.

Please review the two- and four-year targets, and submit your targets in the forthcoming template to Caltrans by Friday, November 16, 2018, via email to pm3@dot.ca.gov. For questions, contact Nick Deal at (916) 654-4853, or via email at Nicholas.Deal@dot.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Coco Briseño".

COCO BRISEÑO
Deputy Director
Planning and Modal Programs

Attachment

Performance Measure	2017 Baseline Data	2-year Target	4-year Target
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%)
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)
Total Emissions Reductions by Applicable Pollutants under the CMAQ Program ²			
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%)	2,479.83 (+2%)
PM2.5 (kg/day)	904.25	913.29 (+1%)	922.34 (+2%)
*Annual Hours of Peak-Hour Excessive Delay Per Capita ¹	State and MPO must coordinate on a single, unified 4-year target.		
Sacramento UA	14.9 Hours	N/A	14.7 (-1.0%)
San Francisco-Oakland UA	31.3 Hours	N/A	30.0 (-4.0%)
San Jose UA	27.5 Hours	N/A	26.4 (-4.0%)
Los Angeles-Long Beach-Anaheim UA	51.7 Hours	N/A	51.2 (-1.0%)
Riverside-San Bernardino UA	16.3 Hours	N/A	16.1 (-1.0%)
San Diego UA	18.4 Hours	N/A	18.0 (-2.0%)
*Percent of Non-Single Occupancy Vehicle (SOV) Travel ³	State and MPO must coordinate on a single, unified 2-year and 4-year target.		
Sacramento UA	22.8%	23.3% (+0.5%)	23.8% (+1%)
San Francisco-Oakland UA	44.3%	45.3% (+1%)	46.3% (+2%)
San Jose UA	24.5%	25.5% (+1%)	26.5% (+2%)
Los Angeles-Long Beach-Anaheim UA	25.6%	26.1% (+0.5%)	26.6% (+1%)
Riverside-San Bernardino UA	22.7%	23.2% (+0.5%)	23.7% (+1%)
San Diego UA	23.8%	24.8% (+1%)	25.2 (+1.4%)
Percent Change in Tailpipe CO ₂ Emissions on the NHS Compared to the Calendar Year 2017 Level (Greenhouse Gas performance measure) ⁴	TBD	TBD	TBD

*Pending final MPO approval.

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

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

³ Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

⁴ State must establish target no later than September 28, 2018

Figure B, Description of Projects in CMAQ Performance Plan for 2018-2021 Performance Period

Title	Lead Agency	1st CMAQ Obligation Year	VOC Benefit kg/day	CO benefit kg/day	NOx Benefit kg/day	PM10 Benefit kg/day	PM2.5 Benefit kg/day	Traffic Congestion Benefit? Peak-hour Excessive Delay	Traffic Congestion Benefit? Non-SOV Mode Share
Bell Road at I-80 Roundabouts	Placer County	2019	0.25		0.19		0.01	Yes	
CNG Bus	Placer County	2018	*	*	*	*	*	Yes	Yes
Cook Riolo Road Pathway	Placer County	2018	0.04		0.02	0.01	0.01		Yes
D W Babcock School Access Improvements	City of Sacramento	2019	0.05		0.03	0.01	0.01		Yes
Downtown Pedestrian Bridge	City of Roseville	2018	0.18		0.11		0.04		Yes
Dry Creek Greenway Trail	City of Roseville	2021	0.09		0.07		0.03		Yes
El Dorado County Fleet Electrification - EV Infrastructure	El Dorado County	2019	0.14		0.15	0.06	0.06		
El Dorado County Fleet Electrification/Hybrid	El Dorado County	2019	0.14		0.15	0.06	0.06		
El Dorado Hills Boulevard Class 1 Trail	El Dorado County	2019	0.08		0.04	0.02	0.02		Yes
El Dorado Trail - Missouri Flat Road Bike/Pedestrian Overcrossing	El Dorado County	2019	0.07		0.04	0.02			Yes
El Dorado Trail Ext. - Los Trampas Dr to Halcon Rd	El Dorado County	2018	0.01						Yes
Fair Oaks Boulevard Improvements, Phase 3	Sacramento County	2019	0.05		0.04	0.02	0.02		Yes

Title	Lead Agency	1st CMAQ Obligation Year	VOC Benefit kg/day	CO benefit kg/day	NOx Benefit kg/day	PM10 Benefit kg/day	PM2.5 Benefit kg/day	Traffic Congestion Benefit? Peak-hour Excessive Delay	Traffic Congestion Benefit? Non-SOV Mode Share
Florin Creek Trail/SOFA Bike & Pedestrian Improvements	Sacramento County	2018	0.01						Yes
Folsom Blvd Complete Streets Phase 5 (Bradshaw to Horn)	City of Rancho Cordova	2020	*	*	*	*	*		Yes
Folsom Blvd. Complete Streets Rehabilitation	City of Sacramento	2018	0.13		0.1	0.06			Yes
Folsom Blvd./Power Inn Rd. Intersection (Ramona Ave Phase I)	City of Sacramento	2018	0.05		0.04	0.02	0.02	Yes	
Folsom Cottage Sidewalk Infill	Sacramento County	2018	1.27		0.77	0.13			Yes
Folsom/Placerville Rail Trail	City of Folsom	2019	0.04		0.03	0.01	0.01		Yes
Franklin Ave. Pedestrian Improvements	City of Yuba City	2019	0.1		0.06	0.02	0.02		Yes
Franklin Cycle Track	City of Sacramento	2019	0.02		0.01	0.01	0.01		Yes
Garfield Ave. Bike Lanes and Pedestrian Connectivity Project	Sacramento County	2018	0.03		0.07	0.01			Yes
Hazel Avenue Sidewalk Improvements	Sacramento County	2018	0.07		0.05	0.02	0.02		Yes
Highway 49 Sidewalk Gap Closure	PCTPA	2018	0.06		0.04		0.01		Yes
I-80 HOV Across the Top	Caltrans D3	2018	67		62	55		Yes	Yes
Laguna Creek Trail and Bruceville Rd Sidewalks	City of Elk Grove	2020	0.08		0.06	0.04	0.04		Yes

Title	Lead Agency	1st CMAQ Obligation Year	VOC Benefit kg/day	CO benefit kg/day	NOx Benefit kg/day	PM10 Benefit kg/day	PM2.5 Benefit kg/day	Traffic Congestion Benefit? Peak-hour Excessive Delay	Traffic Congestion Benefit? Non-SOV Mode Share
Lake Natoma Trail – Gap Closure	City of Folsom	2018	0.01		0.01				Yes
Lincoln Boulevard Streetscape Improvements Project Phase 3	City of Lincoln	2020	0.08		0.05	0.02	0.02		Yes
Live Oak Community Trail Segment 4	City of Live Oak	2019	0.01		0.01				Yes
Mariposa Safe Routes to School Phase 3	City of Citrus Heights	2018	0.01						Yes
Martis Valley Trail	Placer County	2018	0.01		0.01				Yes
Meadowview Rd. Streetscape Phase 1	City of Sacramento	2019	*	*	*	*	*		Yes
Merrychase and Country Club Drive Bicycle and Pedestrian Improvements	El Dorado County	2019	0.04		0.03	0.01	0.01		Yes
Nevada Street Pedestrian & Bicycle Facilities	City of Auburn	2019	0.03		0.02				Yes
New York Creek Trail East - Phase 2	El Dorado County	2018	0.02		0.01				Yes
Oak Street Extension of Miners Ravine Trail	City of Roseville	2020	0.05		0.04		0.01		Yes
Pacific St at Rocklin Road Roundabout	City of Rocklin	2020	0.26		0.21		0.01	Yes	
Placer County Congestion Management Program	PCTPA	2019	11.44		11.59		5.54		Yes
Placer County Freeway Service Patrol	PCTPA	2021	5.62		2.25		0.34	Yes	

Title	Lead Agency	1st CMAQ Obligation Year	VOC Benefit kg/day	CO benefit kg/day	NOx Benefit kg/day	PM10 Benefit kg/day	PM2.5 Benefit kg/day	Traffic Congestion Benefit? Peak-hour Excessive Delay	Traffic Congestion Benefit? Non-SOV Mode Share
Placerville Drive Bicycle and Pedestrian Facilities	City of Placerville	2019	0.08		0.04	0.02	0.02		Yes
S. Auburn St. & I-80 Roundabout	City of Colfax	2018	0.05		0.05		0.01	Yes	
SECAT Program Phase 3	SMAQMD	2018	9		236	21			
Silva Valley Parkway at Harvard Way Intersection Improvements	El Dorado County	2018	0.03		0.02			Yes	
Silva Valley Pkwy Class I/II Bike Path - Harvard Wy to Green Valley Rd	El Dorado County	2018	0.02		0.01				Yes
South Sacramento Parkway Trail - West	City of Sacramento	2019	0.12		0.07	0.02	0.02		Yes
Spare the Air Phase 2	SMAQMD	2018	0.2		0.2				
Spare the Air Phase 3	SMAQMD	2021	0.2		0.2				
Sycamore Park Phase 2 and 3 Bicycle and Pedestrian Overpass	City of West Sacramento	2018	0.02		0.01	0.01	0.01		Yes
Sycamore Trail/Westacre and Bryte Bicycle Routes	City of West Sacramento	2018	0.12		0.06	0.03	0.03		Yes
Town Center Implementation Plan Improvements Phase 4	Town of Loomis	2019	0.03		0.02	0.01	0.01		Yes
Transportation Demand Management (TDM) Phase 3	SACOG	2020	0.54		0.5				Yes
Two Rivers Trail Phase II	City of Sacramento	2019	0.02		0.02	0.02			Yes
Washington Bl/All America City BI Roundabout	City of Roseville	2020	*	*	*	*	*	Yes	

Title	Lead Agency	1st CMAQ Obligation Year	VOC Benefit kg/day	CO benefit kg/day	NOx Benefit kg/day	PM10 Benefit kg/day	PM2.5 Benefit kg/day	Traffic Congestion Benefit? Peak-hour Excessive Delay	Traffic Congestion Benefit? Non-SOV Mode Share
Washington Blvd/Andora Undercrossing Improvement Project	City of Roseville	2020	0.9		0.51	0.16		Yes	
Washington Boulevard Bikeway and Pedestrian Pathways Project	City of Roseville	2020	0.63		0.45	0.49			Yes
West Main Street Bicycle/Pedestrian Mobility and Safety Improvements	City of Woodland	2018	0.05		0.03	0.01	0.01		Yes
West Woodland SRTS	City of Woodland	2018	0.05		0.04	0.01	0.01		Yes
Western Placerville Interchange (Ray Lawyer Drive Park and Ride Lot)	El Dorado County Transit	2018	0.63		0.45	0.49		Yes	
Western Placerville Interchanges Phase 2	City of Placerville	2018	0.03		0.02			Yes	

* SACOG will consider adding revised emissions benefit analysis in the mid-period performance report.