

CMAQ Cost-Effectiveness Threshold Documentation for the *Merced County Association of Governments* 2019 FTIP

The Congestion Mitigation and Air Quality (CMAQ) program provides funding for transportation projects or programs that contribute to attainment or maintenance of the national ambient air quality standards. All San Joaquin Valley Metropolitan Planning Organizations (MPOs) adopted policies in 2007 for distributing at least 20 percent of the CMAQ funds to projects that meet a cost-effectiveness threshold for emission reductions. For the 2019 Federal Transportation Improvement Program (FTIP), this applies to years 2018-2019 through 2021-2022. *The Merced County Association of Governments (MCAG)* has made every effort to expend the minimum 20 percent funding for cost-effective projects over the course of the FTIP and the attached documentation demonstrates that *MCAG* has met the 20 percent funding goal.

Project eligibility continues to be based on federal CMAQ guidance. MPOs can fund projects within local jurisdictions or contribute funding to the San Joaquin Valley Air Pollution Control District (SJVAPCD) grant incentive programs to meet the cost-effectiveness threshold requirements. Funds contributed to the SJVAPCD grant incentive programs will be assumed to have met the threshold, as that threshold is more stringent than the one established by the CMAQ cost-effectiveness policy.

Emission benefits and cost-effectiveness calculations are based on the applicable pollutants for the region, including the components of ozone (nitrogen oxides (NO_x) and reactive organic gases (ROG) and particulate matter (PM₁₀ and PM_{2.5}). The “Methods to Find the Cost-Effectiveness of Funding Air Quality Projects” document developed by the Air Resources Board (ARB) is currently the appropriate methodology for calculating cost-effectiveness. In addition, FHWA has published “CMAQ Improvement Program Cost-Effectiveness Tables and Development Methodology” on December 3, 2015 and this methodology will be used to establish project eligibility for project types not addressed in the state guidance. Another appropriate cost-effectiveness calculation methodology may be used upon consultation with interagency partners. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced (ROG + NO_x + PM_{2.5} + PM₁₀). The cost-effectiveness threshold for the 2019 FTIP was recommended to be maintained at \$45 per pound (\$90,000/ton). The threshold is based on CMAQ dollars only, not total project cost.

MCAG has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy

When unobligated and programmable CMAQ capacities exist, staff would present the recommendation to do a “call for projects.” This staff recommendation will be presented to *MCAG*’s Citizens Advisory Committee, Technical Review Board, and Governing Board. This presentation will contain information on present and future CMAQ capacities, eligibility, selection process and scoring, and schedule. Staff will also provide a reminder of the Board-approved CMAQ Programming Policy and Guidance. This guidance addresses the goal to program 20 percent of the 2019 FTIP’s total CMAQ capacity to highly cost-effective projects/programs. Following Board approval, staff will release the “call for projects.” The CMAQ committee, which is made up of technical staff of local agencies and Caltrans, will be convened to review and score the submitted applications and make a recommendation for programming.

During the evaluation process, the CMAQ committee will prioritize and recommend highly cost-effective projects/programs, which will help to achieve the region's 20 percent programming goal. This recommendation will be put before the committees before going to the Governing Board for official approval of FTIP programming.

As stated in the Cost-Effectiveness Policy, *MCAG* has agreed to post information related to the implementation of the cost-effectiveness CMAQ policy on its website. Attached is documentation that fulfills this requirement and demonstrates that *MCAG* has estimated the amount of funding in the 2019 FTIP necessary to meet the 20 percent cost-effectiveness goal and provided a summary of the CMAQ projects that meet the minimum cost-effectiveness threshold.

MCAG will release the next "Call for Projects" in the Fall of 2018 to identify and program new projects/programs for the latter two years of the 2019 FTIP. Cost-effectiveness will be a major factor in the project selection process.

CMAQ Cost-Effectiveness Documentation for the Merced County Association of Governments (MCAG) 2019 FTIP

Year	Estimated CMAQ Apportionments	20 Percent Minimum
2019	\$ 3,539,969.00	707,993.80
2020	\$ 3,610,768.00	722,153.60
2021	\$ 3,609,475.00	721,895.00
2022	\$ 3,608,156.00	721,631.20
Totals	\$ 14,368,368.00	\$ 2,873,673.60

Year	FTIP ID	Agency	Project Description	CMAQ Funding Amount	Estimated Cost-Effectiveness ⁽¹⁾
2019		City of Merced	Right-Turn Channelization on SB SR-59 Approaching 16th St	190340	16.57
2019		City of Merced	Traffic Signal @ SR 59 & 16th Street	397057	34.78
2019		YARTS	Public Outreach & Marketing	85000	10.82
2020		YARTS	Public Outreach & Marketing	85000	10.82
2021		YARTS	Public Outreach & Marketing	85000	10.82
2022		YARTS	Public Outreach & Marketing	85000	10.82
2019		City of Merced	Purchase Two CNG Street Sweepers	605545	36.28
2019		County of Merced	Pave Washington Blvd	1103083	0.3

Total CMAQ Funding Amount \$ 2,636,025.00

CMAQ Cost-Effectiveness Goal \$ 2,873,673.60

CMAQ Cost-Effectiveness Goal Met? NO *

Percent of CMAQ Funds Awarded to Cost-Effective Projects 18%

*** Note:** Prior to the release of the revised (3/28/2018) estimated apportionment figures, our region was set to meet the 20% CMAQ Cost-Effectiveness Goal. Still, MCAG has reached 18% with the existing programming, and the latter 2 years of the 2019 FTIP (FY's 2021 & 2022) have not been fully programmed. The Call for Projects is expected in Fall 2018. Cost-effectiveness of projects is a major consideration and scoring factor during the project selection process.

(1) Cost-effectiveness for each project identified as meeting the cost effectiveness threshold must be below \$45 per pound, or \$90,000 per ton.

The following sections come from the MCAG's adopted CMAQ Policies and Procedures.

When sufficient CMAQ capacity warrants, staff will seek the Board's approval to release a competitive "Call for Projects." Staff will review and assess project applications for their completeness and CMAQ eligibility. The CMAQ committee, will be convened to evaluate and score project applications, and make a recommendation for programming.

Category Funding Goals:

The following category funding goals are established:

- Cost-effective projects: at least 20%;
- Transit: as needed;
- Pedestrian/bicycle: at least 40%.

Project Application Scoring:

The following scoring factors (totaling a maximum of 50 points) will be used to rank the project applications.

- Cost-effectiveness: 20 points;
 - Priority is given to Highly Cost-Effective projects (\leq \$45/lb.);
- Vehicle Miles Traveled Reduction: 10 points;
 - Reduction of Vehicle Miles Traveled (VMT) results in reduction of GHG emissions;
- Benefits Disadvantaged Community: 5 points;
 - See <http://www.calepa.ca.gov/EnvJustice/GHGInvest/>
 - Partial points could be awarded if:
 - project location is partially in a disadvantaged community,
 - if not in a disadvantaged community, but benefits to one which could be explained.
- Subjective Evaluation: 15 points
 - Such considerations may include, but are not limited to: safety, functionality, connectivity, accessibility, improving quality of life, supportive of economic activity such as goods movement.