

CMAQ COST-EFFECTIVENESS THRESHOLD DOCUMENTATION FOR THE MADERA COUNTY TRANSPORTATION COMMISSION 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 Madera County Transportation Commission (MCTC) 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 MCTC 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 (PM). 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. In addition, 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 is \$45 per pound (\$90,000/ton), and is based on CMAQ dollars only, not total project cost.

MCTC has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy. MCTC has awarded CMAQ funds through a competitive grant and formula process. Information regarding the MCTC CMAQ Program may be found at: <http://www.maderactc.org/projects/congestion-mitigation-and-air-quality-program-cmaq/>.

As stated in the Cost-Effectiveness Policy, MCTC 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 MCTC 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.

CMAQ Cost-Effectiveness Documentation for the Madera County Transportation Commission 2019 FTIP

Year	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2018-2019	\$2,709,021.00	\$541,804.20
FY 2019-2020	\$2,049,202.00	\$409,840.40
FY 2020-2021	\$2,048,468.00	\$409,693.60
FY 2021-2022	\$2,047,719.00	\$409,543.80
Totals	\$8,854,410.00	\$1,770,882.00

Year ⁽¹⁾	FTIP ID	Agency	Project Description	CMAQ Funding Amount	Estimated Cost-Effectiveness ⁽²⁾
18/19, 21/22	MAD102073	County of Madera	County of Madera; Road 36 from Avenue 9 to Avenue 12 - Shoulder Paving	\$498,000	\$1.76
18/19, 19/20	MAD102074	County of Madera	County of Madera; Road 36 from Avenue 12 1/2 to Avenue 15 - Shoulder Paving	\$415,000	\$0.70
19/20	MAD102075	County of Madera	County of Madera; Road 36 from Avenue 15 to Highway 145 - Shoulder Paving	\$498,000	\$1.45
18/19, 21/22	MAD102076	County of Madera	County of Madera; Road 209 from State Route 41 to 4.6 miles North - Shoulder Paving	\$764,000	\$2.79
18/19	MAD102077	County of Madera	County of Madera; Road 23 from Avenue 14 to Avenue 15 1/2 (1.5 miles), 18 1/2 south 2,000 linear feet - Shoulder Paving	\$316,000	\$1.62
18/19	MAD102079	County of Madera	County of Madera; Road 25 from Avenue 12 to City Limits (1 mile) - Shoulder Paving	\$166,000	\$2.70
20/21	MAD202090	City of Madera	City of Madera; Golden State Boulevard from Pecan to Madera Community Hospital Entrance - Shoulder Paving	\$100,000	\$3.32
18/19, 19/20	MAD202091	City of Madera	City of Madera; Pecan Avenue from Pine to Golden State - Shoulder Paving	\$587,000	\$3.32

Total CMAQ Funding Amount	\$	3,344,000.00
CMAQ Cost-Effectiveness Goal	\$	1,770,882.00
CMAQ Cost-Effectiveness Goal Met?		YES
Percent of CMAQ Funds Awarded to Cost-Effective Projects		38%

(1) Please note that the minimum cost-effectiveness is met over the life of the FTIP (Total), rather than by year.

The annual numbers are for informational purposes only and are subject to change.

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