

DOCUMENTATION FOR THE CMAQ COST-EFFECTIVENESS THRESHOLD FOR THE 2011 FTIP (FY 2011-2014)

Introduction

The general intent of the Madera County Transportation Commission's (MCTC) Congestion Mitigation and Air Quality (CMAQ) Program is aimed toward providing transportation projects that will improve our air quality and reduce transportation-related emissions. Because federal law requires the timely implementation of transportation control measures in air quality plans, the highest priority for funding under the CMAQ Program is implementation of such measures. Major emphasis is upon projects that support alternative modes of transportation, provide congestion relief measures, provide non-polluting transit vehicles and equipment, and provide new technologies/improvements geared toward providing a more efficient and safer transportation system.

The MCTC issued a Call for Projects – Cycle II for the CMAQ Program on October 2, 2009. This Call for Projects was to help select projects to program for the last three years of SAFETEA-LU Reauthorization according to the estimated apportionments that will be available and have been provided to the Madera County region.

The MCTC CMAQ Program allows 40% of the total Madera County apportionment to be set aside as a “Lifeline” amount. Each MCTC member agency is provided with a guaranteed level of CMAQ funding that can be used for any eligible CMAQ project.

The MCTC CMAQ Program allows for 60% of the total Madera County apportionment to be available to local government agencies/districts/jurisdictions and public/private partnerships in the Madera County Region through a competitive grant program.

MCTC has adopted a policy for distributing at least 20% of the CMAQ funds to projects that meet a cost-effectiveness threshold for emission reductions beginning in FY 2011. For the 2011 FTIP this applies to years 2011-2014. The proposed threshold is \$30 per pound (\$60,000 per ton).

Methodology for Calculating Cost-Effectiveness

The methodology used for calculating cost-effectiveness of the CMAQ projects was the 2005 ARB “Methods to Find the Cost-Effectiveness of Funding Air Quality Projects”. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced (VOC + NO_x + PM₁₀). CO emissions are not included in the formula. Cost-effectiveness is based on CMAQ dollars only (vs. total project costs which include capital investments and operating costs).

The funding dollars were amortized over the expected project life using a discount rate. The amortization formula yields a capital recovery factor, which, when multiplied by the funding, gave the annual funding for the project over its expected lifetime. Cost-effectiveness was determined by dividing annualized funds by annual emission reductions (VOC+ NO_x + PM₁₀).

Selection Process

For the “lifeline” projects, each member agency submitted applications for projects that totaled the amount allocated to them. MCTC then reviewed these applications to ensure eligibility. For the “competitive” projects, a Scoring Committee was formed to help score each individual project according to the scoring criteria that is explained in the next section. (A representative from each member agency, a representative from the San Joaquin Air Pollution Control District, a Valley COG representative, and MCTC staff made up the Scoring Committee.) The scores for each project were then tabulated and ranked by average total points. Projects were then selected according to their ranking up to the allocated “competitive” amount.

Scoring Criteria for Selecting Projects

<i>Maximum 20 Points</i>	<i>Congestion Relief</i>
Factors	Has impact on congestion and increases service capacity and/or reliability.
<i>Maximum 10 Points</i>	<i>Trip Reduction</i>
Factors	Project reduces vehicle trips and/or vehicle miles traveled.
<i>Maximum 20 Points</i>	<i>Air Quality Emissions Reduction</i>
Factors	Incorporates transportation control measure and/or reduces air pollution emissions of organic compounds, oxides of nitrogen and/or particulate matter.
<i>Maximum 30 Points</i>	<i>Cost Benefit Ratio</i>
Factors	Quantified annual air emissions reduction (pounds per year) divided by annualized project cost.
<i>Maximum 20 Points</i>	<i>Subjective Evaluation</i>
Factors	The Scoring Committee may use this category to consider factors of overriding concern. Examples may include, but are not limited to: supports economic development activities, provides integration/connectivity, increases safety, increases accessibility, promotes energy conservation, promotes growth management, improves quality of life, leverage/maximizes other funds, promotes system management, etc.
<i>100</i>	<i>TOTAL POINTS AVAILABLE</i>

Note: Each category cannot exceed amount assigned.

In order to obtain CMAQ funding, a positive air quality benefit must result from the proposed project. This is one of the federal government’s primary means of establishing eligibility for the program, and therefore, is a part of MCTC’s process as well.

Also, because the issue of “project delivery” is so important, the *CMAQ Scoring Committee* took into consideration as a part of a project’s “subjective” evaluation score (20-points) a local agency’s ability to deliver projects timely (i.e. past performance/current ability to deliver projects rapidly).

Programming

After the projects are selected, MCTC reserves the right to program the CMAQ projects according to each member agency’s desired priority, deliverability, and within financial constraints of the four-year element.

NEW CMAQ PROJECTS FOR 2011 FTIP

	FTIP ID	Agency	Project Description	Project Cost CMAQ \$	Cost Effectiveness
1	MAD202067	MAD	Front End Loader (1), Replacement, Diesel	\$140,000	\$6.11
2	MAD102062	CNTY	Road 29, Lomita Rd, Road 29 1/2, Dennis Rd; Pave Dirt Roads	\$366,400	\$8.72
3	MAD502013	MUSD	School Bus (4), Replacement, CNG	\$747,192	\$10.76

Subtotal of Cost-Effective CMAQ Projects **\$1,253,592**

4	MAD302053	CHOW	Ave 24 1/2 Shoulder Paving	\$265,590	\$36.50
5	MAD202068	MAD	Purchase and Install CNG Compressor	\$299,000	\$67.34
6	MAD102061	CNTY	Avenue 9 Shoulder Paving	\$87,200	\$213.99
7	MAD202070	MAD	CNG Heavy Duty Dump Truck (1), Replacement	\$166,000	\$217.69
8	MAD302054	CHOW	Pedestrian Facilities - Monterey Ave; 3rd to 13th Streets	\$177,060	\$274.83
9	MAD202069	MAD	Tulare Ave and Cleveland Ave (Class II) and Raymond Rd (Class I) Bike/Pedestrian Facilities	\$275,000	\$350.33
10	MAD202071	MAD	CNG Water Truck (1), Replacement	\$165,000	\$434.06
11	MAD102060	CNTY	Road 23 Shoulder Paving	\$165,000	\$453.51
12	MAD102059	CNTY	Road 225 Pedestrian Path	\$55,740	\$499.59

Subtotal of Other CMAQ Projects **\$1,655,590**

Estimated Apportionments	
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FY 2012-13	\$1,598,441
FY 2013-14	\$1,627,213
FY 2014-15	<u>\$1,627,213</u>
Total Apportionments	\$4,852,867

Total CMAQ Funds Awarded: \$2,909,182
 Total Cost-Effective CMAQ Funds Awarded: \$1,253,592
 % of CMAQ Funds Awarded to Cost-effective projects: 43.09%