

CMAQ COST-EFFECTIVENESS THRESHOLD DOCUMENTATION FOR THE KERN COG 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 beginning in Fiscal Year (FY) 2011. For the 2019 Federal Transportation Improvement Program (FTIP), this applies to years 2018-2019 through 2019-2020. Kern Council of Governments (Kern COG) 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 Kern COG 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. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced (ROG + NO_x + PM₁₀). The cost-effectiveness threshold for the 2019 FTIP is \$45 per pound (\$90,000 per ton) and is based on CMAQ dollars only, not total project cost.

Kern COG has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy. The Kern COG Congestion Mitigation Air Quality Program Policy provides the scoring criteria developed in consultation with local jurisdictions and transit agencies in Kern County. The Kern COG Board of Directors approved the Kern COG Congestion Mitigation Air Quality Program Policy November 17, 2016. The Kern COG Board of Directors approved the Kern COG CMAQ Local Cost-Effectiveness Policy September 20, 2007.

Kern COG issued a call for projects April 2017 that incorporated the CMAQ cost effectiveness policy to identify at least 20% of the CMAQ funds for projects that meet a cost-effectiveness threshold of \$45 per pound. The call for projects was initiated to program \$10,231,000 CMAQ funds in fiscal year 18/19 and \$10,442,000 CMAQ funds in fiscal year 19/20. Based on the CMAQ Policy approved by the Kern COG Board, Kern COG will allocate a minimum of \$4.5 million of those funds to projects that meet the cost effectiveness threshold.

A draft CMAQ Program of Projects was presented for review January 31, 2018 to the Transportation Technical Advisory Committee and February 15, 2018 to the Transportation Planning Policy Committee. The Kern COG Board approved the final CMAQ Program of Projects February 15, 2018. Kern COG then incorporated the approved program of projects into the 2019 Federal Transportation Improvement Program.

As stated in the Cost-Effectiveness Policy, Kern COG 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 Kern COG 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 Kern COG 2019 FTIP

<u>Year</u>	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2018-2019	\$11,156,779	\$2,231,356
FY 2019-2020	\$11,379,914	\$2,275,983
FY 2020-2021		\$0
FY 2021-2022		\$0
Totals	\$22,536,693	\$4,507,339

<u>Year</u>	<u>FTIP ID</u>	<u>Agency</u>	<u>Project Description</u>	<u>CMAQ Funding Amount</u>	<u>Estimated Cost-Effectiveness(1)</u>
18/19-19/20	KER180507	Arvin	Arvin: Derby St (Tejon Hwy) between Haven Dr and Schipper Ave; shoulder paving and construct class II bike path	\$379,884	\$13.77
18/19	KER180505	Bakersfield	In Bakersfield: Stockdale Hwy at SR 43/Enos Ln; construct roundabout	\$2,921,490	\$25.83
19/20	KER180506	Bakersfield	In Bakersfield: Ming Ave at Stine Rd; construct left turn lanes	\$265,590	\$3.69
19/20	KER180507	Bakersfield	Ming Ave at Allen Rd; install traffic signal and Ming Ave between Allen Rd and Buena Vista Rd; signal coordination	\$440,463	\$28.92
18/19	KER180502	Kern County	Kern Region: Bakersfield and Santa Clarita via Frazier Park; provide commuter bus service	\$280,000	\$44.87
18/19	KER180507	Kern County	In Kern County: grouped projects for Safety Improvements - Safer roads A) Bakersfield: Union Ave from Casa Loma Dr/Ming Ave to Fairview Rd; signal coordination (interconnect) B) Oildale: Merle Haggard Dr (Wings Way to McCray St 1.25mi); Airport Dr (Merle Haggard Dr to Norris Rd 1.5mi); & Norris Rd (Airport Dr to McCray St 0.5mi); signal coordination (interconnect) C) Bakersfield: Nord Ave between Stockdale Hwy and Reina Rd; surface unpaved shoulders and install class II bike lanes D) Bakersfield: Breckenridge Rd from Monica St to Comanche Dr; surface unpaved shoulders and install class II bike lanes E) Bakersfield: Vineland Rd from Edison Hwy to Pioneer Dr; surface unpaved shoulders and install class II bike lanes F) Arvin: S. Comanche Dr between Sycamore Rd to Shane Ct; surface unpaved shoulders and install class II bike lanes G) Bakersfield: Renfro Rd between Rosedale Hwy to Hageman Rd; surface unpaved shoulders and install class II bike lanes H) Near Bakersfield: Panama Ln between SR 43 to Bakersfield city limits; surface unpaved shoulders I) Bakersfield: Fruitvale Ave between Norris Rd to Snow Rd; surface unpaved shoulders and install class II bike lanes	\$5,469,700	\$6.58 & \$3.71 & \$24.24 & \$13.45 & \$12.86 & \$6.02 & \$9.01 & \$10.58 & \$33.13

Year	FTIP ID	Agency	Project Description	CMAQ Funding Amount	Estimated Cost-Effectiveness(1)
19/20	KER180507	Kern County	In Kern County: grouped projects for Safety Improvements - Safer roads A) Rosamond: Rosamond Blvd, Stevenson St to 25th St W; 30th St W, Orange St to Rosamond Blvd; 25th St W, Holiday Ave to Rosamond Blvd; surface unpaved shoulders, install class II bike lanes B) Buttonwillow: Brite Rd between Buttonwillow Rd to Wasco Way; surface unpaved shoulders	\$1,678,600	\$15.56 & \$40.46
19/20	KER180509	Kern County	Rosamond: Holiday Ave between 65th St W and 60th St W; surface unpaved road	\$789,000	\$0.44
18/19-19/20	KER180510	Kern County	Delano: Christina St between Mathews Ave to Cecil Ave; surface unpaved road	\$1,137,300	\$1.47
18/19-19/20	KER180511	Kern County	Delano: Mathews Ave between Timmons Ave to Mettler Ave (.75miles); surface unpaved road	\$1,616,800	\$2.01
18/19-19/20	KER180513	Kern County	Lamont: Wilson Rd approx. 250 ft; surface unpaved road; Hope Ave & Tatum St approx. 1,000 ft; surface unpaved shoulders	\$683,500	\$20.91
19/20	KER180514	Kern County	Delano: Brutton St between Mathews Ave to Cecil Ave; surface unpaved road	\$801,900	\$0.56
19/20	KER180518	Ridgecrest	Ridgecrest: W. Dolphin Ave between S. China Lake Blvd and College Heights Blvd; surface unpaved street	\$700,857	\$0.75

Total CMAQ Funding Amount	\$17,165,084
CMAQ Cost-Effectiveness Goal	\$4,507,339
CMAQ Cost-Effectiveness Goal Met?	YES
Percent of CMAQ Funds Awarded to Cost-Effective Projects	76%

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