

MAP-21 FACT SHEET

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SUBJECT: Congestion Mitigation and Air Quality (CMAQ) Improvement Program Apportionment under Moving Ahead for Progress in the 21st Century (MAP-21)

PROBLEM STATEMENT:

The California Department of Transportation (Caltrans) needs to re-establish its methodology to sub-allocate CMAQ apportionments. The state law that guides CMAQ sub-allocation of apportionments to eligible regions refers to a federal statutory formula that no longer exists under MAP-21. Also, MAP-21 added a new mandate requiring States to obligate 25 percent of their CMAQ funds for Fine Particulate Matter (PM2.5) reduction projects in those areas classified as nonattainment or maintenance for PM2.5. However, the current California Air Resources Board (CARB) guidance document, Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, does not include methodology to calculate PM2.5 emission benefits or identify the types of projects that reduce PM2.5.

RECOMMENDATION:

To achieve the Administration's proposal of maintaining status quo funding level, the initial recommendation is Alternative 1 for Fiscal Year (FY) 2012/13. Alternative 2 should be considered for future sub-allocations if Federal Highway Administration (FHWA) provides population data and Air Quality (AQ) factors for PM2.5 nonattainment and maintenance areas.

Caltrans must develop a process to monitor the use of CMAQ funds to ensure that 25 percent are obligated on PM2.5 reduction projects in those areas designated as nonattainment or maintenance for PM2.5. However, before a proposal can be recommended, guidance is needed from FHWA on how PM2.5 shall be measured and reported. Furthermore, regardless of which alternative is chosen, Caltrans must request CARB to update their emission factor tables and guidance documents so that CMAQ recipient agencies can calculate PM2.5 air quality benefits from proposed projects. Emission factor tables supporting existing ozone and carbon monoxide (CO) analysis methods also must be updated by CARB to reflect the most recent version of the Emission Factors (EMFAC) model.

BACKGROUND:

Purpose of the CMAQ Program

The purpose of the CMAQ Program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards for ozone, CO, and particulate matter. The two goals of the CMAQ program are to improve air quality and relieve congestion. Projects funded from CMAQ must demonstrate an air quality benefit through either a qualitative assessment or quantitative analysis. The CARB method is most commonly used by MPOs and transportation planning agencies to quantify a project's emissions reduction benefits.

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Apportionment Formula

Prior to MAP-21, the apportionment formula was set forth under subsection (b)(2) Section 104 of Title 23 of the United States Code (USC), last amended by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). MAP-21 deleted that subsection and replaced it with subsection (b)(4). Based on this new subsection, the CMAQ apportionment to the State is no longer derived from a statutory formula based on severity of nonattainment areas, but is calculated based on the relative size of California's FY 2009 apportionment. The California Streets and Highways Code Section 182.7, therefore, refers to a federal statutory formula that no longer exists.

Historically, Caltrans does not retain any CMAQ funds at the state level, but rather sub-allocates CMAQ apportionments to MPOs and transportation planning agencies in federally designated AQ nonattainment and maintenance areas within the state. The SAFETEA-LU formula used to calculate the sub-allocation was the latest available population of nonattainment and maintenance area multiplied by the AQ factors for ozone and CO, published on FHWA's website:

http://www.fhwa.dot.gov/environment/air_quality/cmaq/populations/. It is unknown at this time if, and in what format, FHWA will continue to provide weighted population data, since for CMAQ allocation purposes at the state level, they are no longer required. If FHWA does not continue to provide the weighted population data for ozone and CO, Caltrans must use the latest population data (2008 population) available from FHWA or generate its own data for future CMAQ sub-allocations.

Neither MAP-21 nor previous Federal transportation legislation (such as SAFETEA-LU) require use of any particular sub-allocation factors within states. California previously chose to follow the Federal allocation procedure which prior to MAP-21 was based on the severity of nonattainment for ozone and CO. This preference is reflected in current State law. The addition of PM2.5 to the formula would be consistent with the priority provisions of MAP-21, but is not required by it.

Reporting

Under SAFETEA-LU, States are required to prepare a yearly report to detail how CMAQ funds have been invested. Caltrans compiles data from MPOs and Regional Transportation Planning Agencies (RTPAs) and submits a summarized report for the State of California. MAP-21 mandates that MPOs serving a transportation management area with a population over 1,000,000 people representing a nonattainment or maintenance area develop a Performance Plan (PP). It is unknown at this time the format of the PP and or what the Caltrans role will be for reporting.

Other Considerations

CMAQ apportionments are calculated based on the nonattainment and maintenance areas that exist at the time of apportionment. Apportionments are generally calculated prior to the beginning of each FY. When the Environmental Protection Agency designates new or revised nonattainment areas, the new areas can be used for apportionment purposes when the designations become effective (usually 30-60 days after publication of designations in the Federal Register). There is no requirement that apportionments be modified during a FY if new areas become effective; they would most likely be used in the next regular apportionment process.

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ALTERNATIVES:

Alternative 1:

Issue policy and/or revise state law to continue the sub-allocation of 100 percent of CMAQ funds to eligible regions in accordance with subsection (b)(2) Section 104 of Title 23 of the USC under SAFETEA-LU, as of FY 2010 (prior to the enactment of MAP-21). This formula is based on population of nonattainment and maintenance areas multiplied by AQ factors for ozone and carbon monoxide, using the latest available data for population and AQ status designation at the time of apportionment. Issue policy and/or state law to mandate and hold MPOs and RTPAs with PM2.5 nonattainment or maintenance areas accountable for obligating 25 percent of their CMAQ funds on PM2.5 reduction projects.

- **Pros:** This alternative will best achieve the administration's policy of maintaining status quo funding level. However, CMAQ funding level will vary based on apportionment to California, AQ status, and population at the time of apportionment. Some funding variances among regions should be expected. This sub-allocation methodology is most expedient, familiar, and generally accepted by CMAQ recipient agencies. Regions will have more discretion in project selection to address their transportation needs, congestion, and air quality challenges. Caltrans CMAQ role and responsibilities will remain the same as they are now.
- **Cons:** As is presently the case, Caltrans will not be the lead in selecting CMAQ eligible projects and must monitor the use of CMAQ funds to ensure that regions with PM2.5 nonattainment or maintenance areas obligate at least 25 percent of their CMAQ funds for PM2.5 reduction projects. This methodology does not provide preference in sub-allocating funds to regions in PM2.5 nonattainment or maintenance areas.

Alternative 2:

Issue policy and/or revise state law to sub-allocate 100 percent of CMAQ funds to regions based on population of nonattainment and maintenance areas multiplied by AQ factors for ozone, CO, and PM2.5, using the latest available data for population and AQ status designation at the time of apportionment. Issue policy and/or state law to mandate and hold MPOs and RTPAs with PM 2.5 nonattainment or maintenance areas accountable for obligating 25 percent of their CMAQ funds on PM 2.5 reduction projects.

- **Pros:** MAP-21 mandates that the State and MPOs shall give priority in distributing CMAQ funds for projects that are proven to reduce PM2.5, including diesel retrofits. This alternative sub-allocation methodology, although not mandated, meets the priority provisions of MAP-21. Similar to Alternative 1, regions will have discretion in project selection to address their transportation needs, congestion, and air quality challenges. Caltrans' CMAQ role and responsibilities will remain the same as they are now.
- **Cons:** This alternative changes the current sub-allocation methodology by adding PM2.5 as an additional AQ factor, which will result in changes to status quo funding level. Some funding for areas that are nonattainment or maintenance for ozone and CO will be redirected to areas that are nonattainment or maintenance for PM2.5. It is unknown at this time if FHWA will provide the

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necessary population data and PM 2.5 AQ factor for calculation purposes. Consensus from all CMAQ recipient agencies will be required because of the adverse funding impact to PM 2.5 attainment areas.

Similar to Alternative 1, Caltrans will not select CMAQ eligible projects and must monitor the use of CMAQ funds to ensure that regions with PM2.5 nonattainment or maintenance areas obligate at least 25 percent of their CMAQ funds for PM2.5 reduction projects.

Alternative 3:

Caltrans retains the CMAQ funds and selects projects to meet the 25 percent obligation requirement for PM2.5. Projects that use the remaining funds could be selected by Caltrans or the remaining funds could be sub-allocated to MPOs and RTPAs based on ozone and CO status as is done now. The CMAQ program would be managed by the Division of Local Assistance as a state managed program.

- **Pros:** Caltrans will be the lead in project selection. This alternative would provide certainty for the State and for FHWA that the PM2.5 project mandate is being met.
- **Cons:** This policy will not meet the administration's goal of maintaining status quo funding level and support from transportation partners may be difficult to achieve. Furthermore, Caltrans is not adequately staffed to assume this responsibility.

PROPOSED IMPLEMENTATION SCHEDULE:

October 1, 2012 Sub-allocation of 100 percent CMAQ funds per Alternative 1.