

Status of Air Quality Performance Modeling of Discussion Draft Preferred Scenario

On Greenhouse Gas Reduction Targets:

- Discussion Draft Preferred Scenario (Discussion Draft) circulated on January 26 does not meet state greenhouse gas (GHG) target for year 2035. This is an indicator that the federal air quality conformity test is also going to be very close.
- Discussion Draft performance is improving with changes being made through work with local agencies, but performance is not yet "there." Vetting period concludes on March 9th so there are still changes that may be made to the land use and transportation components of the plan that could improve performance.
- Staff is also analyzing other categories of GHG reduction that may result in GHG reductions. Those are reductions from certain programs in the MTP/SCS that SACOG's travel model and the state's air emissions model do not yet have the capability to analyze.
- The current plan (2012 MTP/SCS) is allowed to capture some of these GHG reductions from programs like: Intelligent Transportation System (e.g. traffic signal synchronization), Transportation Demand Management (employer programs like reduced-fare transit passes and carpool incentives) and accounting for increasing rates of working at home. About 2.5 percent of the 16 percent reduction the 2012 plan delivers by 2035 is estimated to come from these kinds of programs.
- Staff is investigating whether SACOG still will be able to claim this size of benefit from these programs for the 2016 MTP/SCS, as well as whether we can expand the claimed benefits by including the Board's adopted electric vehicle readiness plan and TCM for Spare the Air days. These programs may be able to help us close the gap.

On Air Quality Conformity:

- It will be at least another 45-60 days until there is useful information on how the Draft Preferred Scenario will perform on the federal air quality standards (i.e. ozone pre-cursors and particulate matter or PM).
- The draft plan will be subject to an unusual regulatory situation this plan cycle with regard to PM2.5. This situation was explained to all of the SACOG Board committees a few months ago by Larry Greene from the Sacramento Metropolitan Air Quality Management District.
- The "build/no-build" test that must be applied means that for the forecast years 2018, 2027 and 2036 the transportation investments by each year in the plan will generate no more PM2.5 than if they were not constructed. While the 2012 MTP/SCS and its subsequent plan amendments met that "build/no-build" test, there is absolutely no safety margin in that test.

Table 1. SACOG Air Quality Conformity Emissions Analysis

EMISSIONS FACTOR (S)	GEOGRAPHY ¹	TEST TYPE ²	SEASON ³	Nonattainment Designation	2015	2017	2018	2020	2022	2024	2025	2027 ⁴	2030	2036
Ozone Pre-Cursors (ROG, NOx)	All of Sacramento, Yolo Counties; southern portion of Sutter County; El Dorado and Placer Counties, outside Tahoe Basin; the Sutter Buttes area; portions of Solano County. ⁵	Budget	Summer	Nonattainment		X	X					X		X
Carbon Monoxide	Urbanized area of Sacramento County and parts of Yolo and Placer Counties	Budget	Winter	Maintenance			X					X		X
PM ₁₀	Sacramento County	Budget	Winter	Maintenance					X			X		X
PM _{2.5}	Sacramento and Sutter Counties and portions of Placer, El Dorado, Solano, Yolo, and Yuba Counties	Build/ No Build	Winter	Nonattainment			X					X		X
	Sutter County and a portion of Yuba County	Budget	Winter	Maintenance		X				X		X		X
<i>MPO Milestone Forecasting Years for MTP and MTIP</i>														
SACOG ⁶	Sacramento, Sutter, Yolo, and Yuba Counties; Placer and El Dorado Counties, outside the Tahoe Basin.	n/a	n/a					X				X		X
MTC ⁷	9-County Bay area; includes the portion of eastern Solano County in the Sacramento Valley ozone non-attainment area, and for the PM _{2.5} conformity area.	n/a	n/a		X			X			X		X	X

Source:SACOG, March 2015

¹ See Figure 1 for specific areas and geographies for each emissions factor.

² Where mentioned "Budget" figures come from the latest adopted State Implementation Plan or motor vehicle emissions budget adequacy finding.

³ Indicates which season is used for setting EMFAC 2011 for estimating emissions.

⁴ The 2008 ozone standards include a 2027 attainment year, effective July 20, 2013.

⁵ The 2008 ozone standards classify the Sutter Buttes Area as an unclassified/attainment area for ozone, effective July 20, 2013.

⁶ These are the milestone forecast years for SACOG's regional travel demand modeling input files (e.g. land use, population, employment and demographic files). Vehicle activity forecasts needed for interim years are generated by interpolating input files by subarea, and running the travel demand model with travel networks for the air quality conformity analysis years.

⁷ These are the milestone forecast years of MTC's regional travel demand modeling input files. For ozone and PM_{2.5} analysis, MTC provides to SACOG travel demand model vehicle activity files for eastern Solano County for these milestone years. For ozone and PM2.5 conformity analysis years which fall between the milestone years, SACOG staff interpolates the given vehicle activity data using average annual growth factors