

September 3, 2009

The following comments were provided by SACOG on behalf of Mike McKeever, Regional Targets Advisory Committee (RTAC) Chair, for consideration by the committee.

## SACOG Comments on “Working Draft RTAC Report (August 28, 2009)”

### **pp. 5-6, “Regional Targets Advisory Committee Recommendations”:**

This section should be re-visited after the substance of the report is near-final. Especially on key issues like when and how to use travel demand models or other tools for target setting or compliance are still in discussion, this summary of all the Committee recommendations is premature. The summary should include a clear and concise statement of the target metric.

### **pp. 7-9, “Step 1” of the 6-step target-setting process:**

Based on the early discussions, this analysis by the MPO’s would include both the fiscally constrained RTP’s and any other standing scenarios which have been developed and analyzed. At least three MPO’s have such scenarios and reported data and model outputs to the RTAC on them: MTC/ABAG, SANDAG, and SACOG. Aging of population and changes to household income should be included in the listing of assumptions to be compared for consistency in this process. This step should also include comparison of existing tests of model sensitivity, or performance of new tests on key factors, to determine the relative sensitivity of models.

### **p.8 “Step 4” of the 6-step target-setting process:**

This step should be expanded to include the “draft of draft” target reduction proposal by CARB. Based on the vote of the Committee, these “draft of draft” should be stated as a uniform percentage decrease in the Base Year per capita GHG from light duty vehicles, net of the agreed upon share of external travel. The “draft of draft” target proposal should specify factors which would be considered in making exceptions or adjustments to the target.

### **p.9, first paragraph of “Expert Consultation” section**

In addition to land use and transportation experts, others should be consulted: representatives of business, agriculture, construction, affordable housing, and others mentioned by Committee members at the September 1 meeting. This consultation should take account of ongoing similar efforts by Caltrans, TRB and others.

The product of this consultation should not be described as a “BMP list”, for three reasons:

- The scope of the consultation should include factors which could not reasonably be defined as “management practices” (e.g. fuel prices, aging, income, etc.)
- The BMP tool is described in a later section as explicitly being oriented to estimation of GHG reductions for policies and factors. Especially since very few empirical studies (as opposed to model-based tests) focus on GHG production related to land use and transportation policies, experts should be consulted to assemble empirical studies on a wide range of travel behavior and metrics which may be related to GHG production, such as VMT, mode of travel, number of trips, vehicle

ownership, etc. The relationship between these metrics and GHG production should be considered later, as part of development of the BMP tool.

- Stating the charge of this group as assembling and synthesizing the most credible empirical research and evidence, a panel of experts could come to consensus and finalize a report to CARB by January 2010. Adding to this charge the imprimatur “Best Practice”, would require a level of evaluation and critique of available evidence, discussion, debate and consensus building, which could not be completed in this timeframe. Later in these comments, it is recommended the development of the BMP tool be scheduled to conclude by, at latest, March 2010—these two months will be needed to develop consensus on Best Practice based on the empirical studies.

In addition to assembling available research and empirical studies, experts should be consulted by CARB to identify, where possible, the context variables which could be used to assess how applicable a given study or set of studies are to California regions. Additionally, if available research and empirical studies point to a range of effects for the same policy or factor, this evidence should be assembled, too.

The development of a BMP list should be based on the assembled research described above, but should be on a separate, potentially parallel track.

**pp.10-13, “Empirical Studies” section**

This section should be condensed, and speculation regarding what the studies could be used for should be conditioned the availability of a sufficient number of studies which are applicable to California and relate to policies or combinations of policies under consideration for SCSs. The reason for this comment is that empirical research tends to isolate specific, individual factors or policies, and a limited range of travel behavior which have varying, and sometimes uncertain, applicability to GHG production. The following are offered as examples of the intended editing:

- In bullet #1 on page 12, it is stated “CARB can use empirical studies as one means to estimate what order of magnitude of GHG reductions are possible from various policies in California’s regions in 10, 20, and 30 years as part of their process to complete Step 1—Draft uniform statewide reduction targets”. The following is offered as a more realistic statement:
  - “Empirical studies may be useful in providing: a) reasonableness checks to data provided by MPO’s to CARB for consideration in target setting; b) evaluating targets proposed by MPO’s; and c) identifying factors which may be considered in making adjustments to the uniform statewide target for a given MPO”.
- In bullet #2 on page 12, it is stated that “Empirical evidence can also be used to estimate the magnitude of co-benefits of implementing SCSs”.

The assertion that empirical studies exist which would allow anyone estimate co-benefits without additional technical analysis is speculative. The following is offered as a more realistic statement:

- “Empirical studies can be used to identify potential co-benefits of implementing an SCS.”

**p. 11, bulleted list of empirical studies at bottom of page**

Remove the reference to “SACSIM 4D Model Elasticity Update, SACOG, 2009”. This refers to ongoing research by SACOG which is not concluded. Add the following: “Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO2 Emissions”, TRB Special Report 298.

**pp. 12-13, bullet #3, “Empirical Studies” section**

The content of this bullet, in condensed form, should be added to the “Expert Consultation” section. The citation of one study and elasticity value should be reduced or removed from the section—there are many potential studies and findings which could be included in the synthesis of empirical studies, and citation of only one in the report may be misinterpreted as an endorsement of that one study or finding.

**p. 13, bullet #4, “Empirical Studies” section**

Replace this paragraph with the following text: “Empirical studies and research synthesis assembled through consultation with experts will be useful in development of a BMP list and tool, and for development of other tools such as post processors to enhance and augment traditional travel demand models, or simplified spreadsheet tools, described in greater detail below.”

**p. 13, last paragraph of “Empirical Studies” section**

It is stated that a statewide would “attempt” to model inter-regional travel—the unique function of the statewide model should be estimation and forecasting of inter-regional travel, and this should be stated as its primary purpose, not simply an attempt. It is also stated that the statewide model “serve as a means to ground-truth” the output of regional models—the statewide model is unlikely to have the level of detail to ground-truth MPO models, but the statewide should serve as a source of inter-regional travel used for all MPO models.

**p. 13, first paragraph of “Use of Modeling” section**

Delete the “,<<others...>>” in the first paragraph.

**p. 15, bulleted items after first paragraph of “RTAC discussions on TDMs”**

Add the following bullet: “Use of models for determining compliance with GHG reduction targets”.

**pp. 19-22, “Best Management Practices” section**

In general, this section should be edited to ensure that the following are clear: the BMP tool does not yet exist; the BMP tool is not the only or preferred tool for determining regional compliance with GHG reduction targets; and the BMP

tool could be used for compliance where regional travel demand models are not adequate to estimate GHG for the region.

**p.20, numbered bullets in the “Approach” section of this page:**

The #2 bullet should be replaced with the following text: “The empirical studies and research synthesis assembled in consultation with experts (described above) should be used as the basis of the BMP list”.

Two new bulleted item should be inserted between #2 and #3:

- “In the development of the BMP tool, the most likely range of GHG reductions due to changes to travel metrics (VMT, mode of travel, number of trips, etc.) should be estimated and documented by the developers of the tool.”
- “Methods for quantifying the extent of policies proposed for analysis in the BMP tools (e.g. transit service, TDM policies, etc.) should be specified by the developers of the BMP tool.”

**p.20, third paragraph of text in the “Approach” section of this page:**

The term “carbon calculator” should be better defined or deleted. In other portions of this section, the function of the BMP was to estimate GHG reductions from some base number (presumably), not to calculate carbon. Also, this paragraph lists a range of inputs to the BMP which would need to be forecasted (population or employment density, share of work trips, hours of transit service, etc.)—the source of these forecasts of estimates should be specified.

**p.21, first paragraph on page**

It is asserted that “This type of calculator could be developed and tested for use by 2010”. This sentence to be re-worded to indicate that the BMP tool would need to be complete by, at latest, March 2010. Further, the second sentence in the paragraph to be re-worded to include an independent peer review of the BMP tool before CARB accepts the tool, and training for CARB staff who will either use or distribute the tool.

**p.21, first paragraph of text in the “Capabilities and limitations of BMP option” section**

The first sentence of this paragraph states “RTAC members carefully examined the capabilities and limitations of the BMP option...”. This sentence should be edited to clarify that while the potential of such an option was discussed, the capabilities and limitations are unknown since the tool has not be developed. Accordingly, the table headers should be renamed as “Potential Capabilities” and “Potential Limitations”.

**p.22, “Potential Applications” section**

The “SCS Compliance Demonstration” bullet should be re-worded to reflect the Committee action on September 1. Its unclear from the description in the rest of this section how the BMP could be used to allow “...continuous monitoring...” of local SB375 implementation—from the description provided, its unclear that

inputs to the BMP tool could be detailed enough to allow for the tool to be used for monitoring purposes.

**p.23, “Target Metric” section**

Per the discussion and action at the September 1 Committee meeting, the definition of the metric should be clarified, and the metric definition should be highlighted in the section. At least three sample calculations should be provided to ensure that the terms of the metric are completely understood. The sample calculations should include a “translation” of the target metric into tons, along with an explanation that the actual amount of growth a region may experience will influence the number of tons reduced. The determination of the Committee that the target reduction be stated as a uniform, statewide percentage should be clearly stated, along with the desire of the Committee to allow limited avenues for adjustments for individual MPO’s.

**p.23, “Account for Statewide Fuel and Vehicle Technology” section**

For purposes of focusing on land use and transportation planning effects on GHG production, the MPO calculation of GHG reductions should be made without Pavley and LCFS reductions included. The reductions is GHG production compared to the base year for SB375 should not include the Pavley and LCFS effects.