

RTP Guidelines Modeling Update Sub-Committee -

Tuesday July 28, 2009 Meeting Summary

Welcome and Introductions

Participants included:

In-Person:

- Sarah Chesebro, Caltrans TSI
- Coco Briseno, Caltrans TSI
- Doug MacIvor, Caltrans TSI
- Chad Baker, Caltrans TSI
- Bob Johnston, UC Davis
- Justin Paddock, ARB
- Michelle Bina, Cambridge Systematics
- Ron West, Cambridge Systematics
- Ron Milam, Fehr and Peers
- David Schonbrunn, TRANSDEF
- Sharon Sprowls, Housing CA
- Frank Limacher, HCD
- Larry Rillera, CEC
- Aniss Bahreinian, CEC
- Jila Pribe, Caltrans DMT
- Paul Philley, Air Quality
- Teresa Favila, Caltrans
- Leonard Seitz, Caltrans
- Bruce Abanathie, Kings County
- Laura Pennebaker, Caltrans
- LaNae Van Halen, Caltrans

Via Phone:

- Chuck Purvis, MTC
- Rick Curry, SANDAG
- Bill Yim, SBCAG
- Jonathan Nadler, SCAG
- Clint Daniels, SANDAG
- Cindy van Empel, City of Modesto
- Susan Branson, CTC

Note: There were many more participants, but we did not get a record of these.

Review of July 14th Kickoff Meeting

The July 14th meeting notes were provided via e-mail and the listserv prior to this meeting. In response to those, there were a few comments, mainly pertaining to typographical errors. Those

changes have been made and an updated file has been added to the listserv; however, the revisions do not alter any of the ideas or purposes of the notes.

RTAC Update

The most recent Regional Targets Advisory Committee (RTAC) meeting was July 22nd. The RTAC is currently looked at two different methodologies for deriving the GHG targets:

1. Model-based approach
2. Points for policies approach

The second methodology consists of developing a menu of policies and setting points for each. A phone participant asked whether the points-for-policies approach is a developed alternative for agencies that do not have adequate modeling resources to execute the model-based approach. The ARB representative confirmed that this was the intention. Another phone participant cautioned that models and/or assumptions may not be consistent enough to utilize a model-based approach.

The next RTAC meeting will take place on August 5th in Los Angeles, starting at 9:30am and could last until 5pm. That meeting will be available via webcast.

Discussion of Proposed Areas/Topics to Be Addressed in Guidelines

As planned from the July 14th meeting, Caltrans TSI collected all comments received and incorporated most of them (by enabling tracked changes during editing) into the Addendum to the 2007 Regional Transportation Plan Guidelines. Caltrans TSI did not include their own comments; those will be added during the next round of document changes. Comments received after the submission date (July 17th) are not reflected in the changed document.

The edited Addendum was provided on the listserv. Some participants found it difficult to find since the original and the changed documents were uploaded with the same name. New rounds of the edited document are uploaded to the listserv will have edit date for the document to eliminate future confusion.

As a result of the July 14th meeting, the issues/topics to be addressed in the Guidelines Update were listed in the Wrap-up and Conclusions section of the July 14th Meeting Notes. The main objectives of the July 28th meeting has been to begin expanding on these issues, identify which are more complex and require at-length discussion, and possibly eliminate topics if there is general agreement or could included in another category.

Performance Indicators/Measures

The discussion began with a participant noting that vehicle miles traveled (VMT) is not a good measure of performance and that there are other ways to calculate emissions. For instance,

vehicle hours traveled (VHT) would be better. Another participant wondered: why VHT is better than VMT, if possible performance measures have been discussed internally at Caltrans, and whether a white paper is, or could be, available on the subject. A Caltrans representative confirmed that they are exploring the topic and are working with the University of California – Irvine to produce a document exploring performance measures in relation to greenhouse gas (GHG) emissions. When that white paper is completed, it will be placed on the listserv.

Several participants provided instances to confirm or dispute whether some performance measure were good, bad, better, worse, etc. Some of these comments are included here:

- Emissions vary for different driving conditions. For example, vehicles in stop-and-go traffic emit more emissions than vehicles driving at a constant speed for the same length traveled.
- VMT could increase but fuel consumption may decrease due to a variety of factors such as fuel efficiency, speed, traffic flow, etc.
- VMT may be appropriate in free-flow conditions or regions/areas of very low congestion.
- VMT generated by household may be a good indicator but can only be produced by an activity-based model since the traditional 4-step model cannot isolate those trips.

It was suggested that performance measures and modeling capabilities be compressed into one category since some regions do not have the capabilities to produce some of the performance measures that would be considered the best practice.

Another participant noted that where we are today and where we are headed in the future (in terms of technology and the state modeling, for example) need to be a considered when choosing which performance measure(s) to include in the guidelines.

It was agreed upon that there are four (4) possibilities for performance measures:

1. VMT
2. VHT
3. GHG Emissions
4. Fuel Consumption

Another category of performance measures was introduced by a participant: land use indicators such as density, land use mix, and walkability.

Consistency/Flexibility

Is the last sentence [see below] of the Consistency of RTP Modeling section, on page 8 of the Addendum, this passage was noted:

“Studies performed by cities, counties, and Caltrans districts may use more-detailed networks and zones than the MPOS uses, but the models should be otherwise consistent, structurally and in operation, with the MPO model.”

One participant, who remembered the conception of this sentence during the last update to the guidelines, clarified its intent. Consistency, in this context, relates to the consistency of models within a region, not across the state. This particular guideline is meant as a quality control within the region.

Since consistency between local and regional models is a big concern for many agencies, it was suggested that a California Inter-Agency (CIA) modeling forum committee be established to address this topic in detail. Since many participants agreed, Caltrans TSI will collect e-mails from individuals interested in becoming members of this committee. A phone participant requested that modelers who used local models, in addition to those that use MPO’s models, be represented in this committee.

The issue of flexibility represents a counter to the issue of consistency. Allowing sufficient flexibility will ensure that consistency requirements are not so stringent that it limits the models in other, more basic, aspects of the model. One participant reinforced that these guidelines are just guidelines imposed to reflect existing state law, not mandating new specifics. Other participants agreed that the document is not a ruler-maker – ARB will impose the laws.

One participant asked how ARB is going to make rules about transportation modeling. It was one phone participant’s knowledge that MPOs need to provide a methodology to ARB, and ARB can either reject or accept the SCS. An ARB representative referenced Government Code 14522.1 subsection B, but said that there has been no discussion to date about how to set rules. However, the general idea included interactions (going back and forth) between ARB and MPOs.

A participant suggested that the guidelines should be a consolidation of codes and policies in SB 375 that related to modeling from the various documents to form a comprehensive reference for MPOs.

Assumptions in Models

Since assumptions in MPO models can be vague, one participant suggested discussing what assumptions should be addressed, such as input data, gas prices, parking costs, inflation, and modes of transportation. A participant expressed the need to have an organized list of assumptions.

A participant suggested that the core assumptions be developed using the same, or at least consistent, methodologies; the values may be different and/or region-specific, but the ways they were obtained, derived, or developed are consistent with other agencies in the state.

Another participant expressed concern about the assumption that there is not interaction between what is being exogenously added to the model. For example, models that do not incorporate land uses assume that they will stay the same.

One participant identified two categories of assumptions that are relevant here:

1. Assumptions within travel demand models
2. Planning assumptions (mainly done at the local level)

Inter-regional Travel

A Caltrans representative wanted the group to know that the reason for this topic is that the current Addendum does not address inter-regional trips and that, at a minimum, we should provide at least a definition. Even though this update is meant to focus on SB 375 and its implications, the dialog on inter-regional trips is needed so it should be addressed now.

An update on the progress of a statewide inter-regional model that is going to be developed was provided. The model can be used to dispute inconsistencies between regional models. This model is expected to be available by September of 2010.

A participant wanted to know how interregional travel is defined and where the boundaries for internal-to-external (IX), external-to-internal (XI), and external-to-external (XX) trips occur. General consensus seemed to agree that boundaries exist between regional MPOs. Another participant questioned whether we should be defining what inter-regional travel means or how to handle it.

One participant asked whether RTAC will resolve what inter-regional travel means and questioned whether we want to have our own independent definition. Another participant suggested letting RTAC be responsible for allocating inter-regional trips between regions, but have us address how many IX/XI/XX trips exist at all regional boundaries.

A participant asked the group whether there was a desire to have a consistent statewide method for quantifying inter-regional trips or should each region develop their own. Another participant recognized the need for consistency here since there are large (geographical) assumptions that need to be made, such as high-speed rail.

Peer Review

One participant stated that SB 375 intends for models to be available to the public. Currently MPO models are generally only accessible to MPOs and Caltrans, and there is not enough documentation or resources to make usable for the public.

Some opening discussion questions included the following:

- How does peer review occur?
- Who does it?
- What are the criteria for passing or failing?
- What will be reviewed?

- What are the review parameters?
- How does this relate to validation of the model? Static or dynamic validation?

A participant cited the TMIP and FHWA as sources for defining the validation process. Page 8 of the Addendum clearly states that the TMIP peer review process should be utilized for the Big 4 MPOs, and two Californians need to participate in order to reinforce California guidelines and laws.

It was also stressed that the peer review requirements in the current guidelines are cumulative. That is, whatever applies to Group A, also applies to all other groups. Whatever applies to Group B, also applies to groups C, D and E.

Another participant acknowledged the peer review requirement but noted that it is largely ignored and wondered how that should be addressed. An agreeing participant cited a lack of resources as the cause for ignoring peer review requirements and stated that the lack of resources limits most MPO validations to static validation.

Modeling Capabilities

When available, the modeling state of practice survey conducted by SACOG will be put up on the listserv; it should be ready before the next meeting. A participant acknowledged that a list of capabilities is good, but we should know the extent of those capabilities (i.e., validation and checks for reasonableness).

Strategic Growth Council and RTAC Overlaps

It was said that the distinguishable differences between this committee and other efforts is that this committee's focus is on technical issues in transportation models where as other group are focusing on policies.

There are no new updates from the Strategic Growth Council.

One participant suggested that it was too early to discuss this topic and that waiting until RTAC has developed some results would be the most beneficial. It was reiterated that RTAC will produce initial recommendations by September 30th but will continue refining those recommendations after the deadline. It was noted that there have not be significant discussions as to what will happen after September 30th.

Alternatives Analysis/Model Sensitivity

Since model sensitivity (in terms of reasonableness and validation) had already been discussed, the focus of this topic was alternative analyses. A phone participant suggested that alternatives testing is, as far as what is tested, is a planning concern; here, the focus should be on how alternative analyses are conducted.

A participant referred to the newly added Sketch Modeling of Scenarios section on Page 8 of the Addendum that introduces the concept two categories of models: sketch planning models (quick turnaround models that could be used during the blueprint process, for example) and detailed models (the traditional travel demand models).

A participant recognized that this is a good addition to the Addendum since the general assumption is that there is only one type of model, and it may be helpful to address other useful tools available to planning organizations.

4Ds Post Processing

It was agreed that this topic could be categorized under the previous discussion on alternatives analysis.

Addressing How Models Can Respond to Questions Policy Makers are Grappling With

It was agreed that this topic encompasses the objective of this committee and can be eliminated as a specific topic of discussion.

Remaining Topics of Discussion

Although not all topics outlined from the last meeting were discussed because of time limitations, the remaining topics could probably be categorized into earlier issues. As said by a participant early on in the meeting, it is difficult to settle on topics and points of interest when most issues are interrelated.

Wrap-up and Conclusion

As a recap, the last meeting was essentially a kickoff meeting that involved discussions about who we are, where we are, and what was to be discussed. At this second meeting, initial dialog on main points of interest began. There was progress on narrowing the list of topics and identifying key complexities.

The next meeting will occur on August 25th. A PowerPoint presentation will be developed and presented at the next meeting. Consistent with the last meeting, comments will be received by Caltrans TSI or via the listserv. The deadline for submission of these comments is August 10th in order to incorporate them into another revision of the Addendum and the PowerPoint presentation.

A participant suggested a list of questions be created with multiple choice answers in order to focus conversations. A phone participant also noted that, since in-person participants sometimes neglect to turn their microphone on for each comment or question, it may be helpful to reiterate their question or comment for the phone participants.