National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290

Highlights of the September 20, 2013 meeting of the Travel Forecasting Subcommittee

Held at the Metropolitan Washington Council of Governments, from 9:30 AM to 12:00 PM
Status of highlights: Approved on 1/24/14

Meeting attendees

- Ed Azimi (VDOT)
- Thomas Burke (Fairfax County DOT)
- Arpita Chatterjee (Fairfax Co. DOT)
- Larry Cole (M-NCPPC, Montgomery Co.)
- Dan Hardy (Renaissance Planning)
- Jamie Henson (DDOT)
- Eric Graye (M-NCPPC, Montgomery Co.)
- Dial J. Keju (Frederick Co.)
- David Kline (Fairfax County DOT)
- Dalia Leven (AECOM)
- Yuanjun Li (M-NCPPC, Montgomery Co.)
- Feng Liu (Cambridge Systematics)
- Xuemei Liu (Cambridge Systematics)
- Subrat Mahapatra (MD SHA)
- David Roden (AECOM Consult, Inc.)
- Jonathan Rogers (DDOT)

COG/TPB staff in attendance

- William Bacon
- Anant Choudhary
- Elena Constantine
- Joe Davis
- Bob Griffiths
- Charlene Howard
- Hamid Humeida
- Nicole McCall
- Ron Milone
- Mark Moran
- Jinchul (JC) Park
- Jane Posey
- Rich Roisman
- Dusan Vuksan
- Feng Xie
- Jim Yin

The regular chair, Wendy Jia of WMATA, was unable to make the meeting, so the meeting was chaired by Ron Milone, COG/TPB staff.

1. Introductions, approval of meeting highlights from the July 19 meeting, and remembrance of Bahram Jamei

The highlights from the July 19, 2013 meeting of the TFS were approved without change.

Bahram Jamei, a 23-year employee of VDOT, a long-time subcommittee member, who served as chair of the subcommittee several times, passed away on August 19. Several members of the subcommittee shared their memories of Mr. Jamei, and a moment of silence was offered as a sign of respect.

2. Consultant-assisted project for development of the TPB travel model: Status report

This item was presented by Mark Moran of COG/TPB staff, who distributed copies of his presentation to the subcommittee. Mr. Moran discussed AECOM's draft FY 2013 report and the FY 2014 task orders for the consultant. AECOM's draft report was distributed at the July 19 TFS meeting, and underwent a 30-day review and comment period. Since there were no comments received, the draft report, dated July 1, now becomes the final report. As for the FY 2014 task orders, there are two authorized task orders:

- Task Order 10: Attend relevant meetings and respond to ad-hoc requests by COG/TPB staff
- Task Order 11: Develop a Cube-based method to generate transit walksheds and calculate zonal percent-walk-to-transit values

And there are two task orders that are being developed:

- Task Order 12: Traffic assignment improvements (a continuation of FY 13 Task Order 8).
- Task Order 13: Mode choice and transit modeling (a continuation of FY 13 Task Order 9)

There were no questions.

3. Global results from the Air Quality Conformity Determination of the 2013 CLRP and FY 2013-2018 TIP

Jane Posey of the TPB staff presented this item. As the TPB has approved the air quality study of the 2013 CLRP and 2013-2018 TIP in July, staff has subsequently prepared a transmittal package containing the associated Version 2.3.52 travel model inputs and application files for each modeled scenario. The package is now available upon request to local agencies and consultants for use in local project planning work. The objective of this agenda item was to provide the subcommittee with a sense of how global travel forecasting results have changed from those of the previous air quality analysis, which was based on the 2012 CLRP and the Version 2.3.39 Travel Model.

Ms. Posey indicated that the 2013 CLRP analysis was undertaken with the newly validated Version 2.3.52 Travel Model, which superseded the Version 2.3.39 model used in the previous 2012 CLRP analysis. She added that the mobile emissions model used to formulate pollutant emissions rates was also updated. The 2013 analysis was conducted with the new MOVES2010a emissions model. The MOVES model superseded the Mobile6.2 model, which was used previously.

The 2013 CLRP air quality analysis was conducted using the Round 8.2 COG Cooperative Forecasts as opposed to Round 8.1 land activity, which was used in the 2012 CLRP analysis. The regional Round 8.2 land activity totals are slightly less than those found in the Round 8.1 land activity forecasts for the near term (2010-2015), but is generally consistent with Round 8.1 levels beyond 2015.

Ms. Posey also indicated that forecasted travel metrics developed for the 2013 CLRP were slightly lower than those developed for the 2012 CLRP analysis. For example, year-2040 vehicle trips were reduced by 4%, year-2040 transit trips were reduced by 6%, and year-2040 VMT was reduced by 3%. The reductions

were attributed to travel model-related changes that were implemented as part of the recent travel model validation effort.

While forecasted vehicle miles are lower this year, the associated mobile source pollutant levels are paradoxically higher than last year's levels. Ms. Posey pointed out that the updated MOVES model generally predicts higher emissions than would have been predicted by the MOBILE model. While 2013 CLRP emission levels are higher than last year's levels, the emissions levels nonetheless adhere to the allotted emission budgets. Ms. Posey pointed out that current emissions budget levels were set using the MOBILE model. Updated budgets were set for fine particle pollutants using MOVES, but these have not yet been approved by EPA for use in the conformity analysis. Budgets have not yet been set using MOVES for ozone season pollutants.

A consultant noted that an apparent discrepancy exists between zonal data in the COG Cooperative Forecast files and land activity inputs to the TPB travel model. He asked for clarification about six TAZs that appear to be "active" in the COG file and appear to be missing from the TPB file. Mr. Moran informed him that the zonal land activity inputs to the TPB travel model are directly formulated from the COG Cooperative Forecasts, but some small differences exist in terms of the zone configuration and in terms of the land activity numbers:

- Some zones in the COG dataset reflect water bodies and are therefore not represented (or are "unused") in the regional travel model;
- Some zones originally developed in the COG dataset do not conform well to the regional transportation network. Consequently, the land activity associated with non-conforming zones was subsumed into adjoining TAZs, which better conformed to the highway network and the non-conforming TAZ number was "unused" by the travel model;
- TPB applies a jurisdictional adjustment factor to employment in the COG file for some non-COG-member jurisdictions to account for differences in the employment definition that exists in the COG file. The adjustment marginally reduces employment levels in Baltimore-area counties and marginally increases employment levels in some exurban counties in Virginia. Consequently, the employment totals reflected in the TPB land activity files <u>will not</u> be consistent with those from the COG Cooperative Forecasting land use file.

Mr. Moran stated that the employment adjustment is explained more thoroughly in the newly published travel model user's guide. He also underscored the importance of acknowledging the differences between COG and TPB land activity, especially when requesting land activity data: TPB land activity forecasts should be requested for those who wish to use the data as an input to the travel model.

4. Status report on the COG/TPB transportation network documentation

TPB staff member Ron Milone presented this item. He informed the committee that TPB staff has been working on a document describing the development of 2013 CLRP/ 2013-2018 TIP network inputs to the Version 2.3.52 Travel Demand model. These are the network inputs that were used in the recent air quality conformity analysis, which was approved by the TPB in July. Staff anticipates that the report will be finalized and presented at the next (November) TFS meeting.

Mr. Milone added that the TPB's network development activities are associated with both model application and model development. Staff has been working with AECOM to begun a migration in transit network software, from the TRNBUILD program to Public Transport (or PT). The new software will require changes in transit network coding conventions and file preparation procedures. These types of changes will eventually need to be communicated to users of the regional model.

A consultant asked if the most recent travel model executions included a year-2013 scenario. While a year-2013 network was not part of the most recent air quality conformity work, a year-2013 network was developed in 2012 for assessment of the 2012 CLRP (using the Version 2.3.39 model). The most recent scenario years analyzed using the Version 2.3.52 Travel Model are 2010, from validation work, and 2015, 2017, 2020, 2025, 2030 and 2040, from the air quality conformity assessment of the 2013 CLRP. TPB staff has also recently executed a 2014 scenario year for the purposes of an updated plan evaluation, but the 2014 results have not yet been published.

A TFS member asked if street names currently exist in a highway network file as a link attribute. Street names do not currently exist as a network attribute, but could possibly be added by relating network links to the NAVTEQ street base file (which is available to COG/TPB staff under a license agreement). Staff will consider this request as future updates are made to the modeling networks. The TFS member also asked if new (3,722 TAZ-based) network nodes could be equated to old (2,191 TAZ-based) network nodes. TPB staff indicated that such an equivalency is not readily available and may likely be difficult to generate.

5. User's Guide for the COG/TPB Travel Forecasting Model, Version 2.3, Build 52

This item was presented by Mr. Moran of COG/TPB staff, who distributed copies of his presentation to the subcommittee. The new user's guide for the COG/TPB Version 2.3.52 Travel Model was finished on September 18. The user's guide is now separated into two volumes: a main report and the appendices. Paper copies of the report were distributed at the meeting and electronic copies of the user's guide are available on the COG website (http://www.mwcog.org/transportation/activities/models/documentation.asp) and the TFS website (http://www.mwcog.org/transportation/committee/committee/documents.asp?COMMITTEE_ID=43). Since the new travel model had already been sent to about a half dozen parties, COG staff will send an e-mail to those parties informing them where they can find an electronic copy of the newly completed user's guide. The majority of Mr. Moran's presentation was about changes that have been made to the user's guide since the previous edition, dated January 20, 2012.

Questions and comments: Eric Graye asked whether the user's guide provides any guidance on how to setup a select-link assignment. Mr. Moran responded that it does not, adding that staff could consider including that topic in a future revision to the user's guide. A subcommittee member asked whether there was a separate report for the model calibration. Mr. Moran responded in the affirmative, noting that the model was calibrated in 2011/2012 to year-2007 conditions, adding that that work is documented in a report dated January 20, 2012.

6. Fairfax County Countywide Transit Network Study

This item was introduced by Thomas Burke of the Fairfax County DOT and presented by Dan Hardy of Renaissance Planning Group. Mr. Hardy distributed copies of his presentation to the subcommittee. He stated that the Fairfax County Department of Transportation conducted a Countywide Transit Network Study to determine the type of transit systems needed to accommodate desired economic growth throughout the county over the next several decades. The study developed recommendations for where Metrorail should be extended, where streetcar or light-rail systems are appropriate, and where dedicated lanes that allow buses to move faster could go. The presentation concluded with a short summary of the status of the plan and the next steps including: network refinements, implementation phasing, funding strategies. Comments were made about job/housing balancing and the thresholds for building new lanes (4,000 passengers for the peak period).

7. Montgomery County Transit Network Study: Countywide Transit Corridors Functional Master Plan

This item was presented by Larry Cole of the Maryland-National Capital Park and Planning Commission. He distributed copies of his presentation to the subcommittee. His presentation reviewed the history of Montgomery County's bus rapid transit (BRT) plan. Then he explained the work conducted by the county, including what was considered in the development of the Countywide Transit Corridors Functional Master Plan. He concluded with a short summary of the status of the plan and next steps. In response to questions from members of the subcommittee, Mr. Cole stated that many issues are still under consideration such as project costing and funding issues. Staff commended the integration of project planning with the regional planning process.

8. Next meeting date and other business

The next scheduled meeting of the TFS is Friday, November 22, 2013 from 9:30 AM to 12:00 noon.

[Note, 1/17/14: The November 22 meeting of the TFS was cancelled due to the sudden and unexpected death of Ron Kirby on November 11. Ron had been the Director of COG's Department of Transportation Planning for over 25 years. His passing had a large effect on staff activities and resulted in the cancelation of several meetings, including the Nov. 20 TPB meeting.]

Rich Roisman of COG/TPB staff mentioned that COG conducts, every two years, an air passenger survey at the three commercial airports, and the next survey will begin October 9 and will last two weeks. So, Mr. Roisman concluded, if you are flying out of one of these airports and receive our survey, please fill it out. The meeting was adjourned about 11:55.

*** The meeting highlights were prepared by Ron Milone, Mark Moran, and Hamid Humeida ***