



## TPB TRAVEL FORECASTING SUBCOMMITTEE

### HIGHLIGHTS OF THE SEPTEMBER 28, 2015 MEETING

Meeting time & location: 9:30 AM to 12:00 noon, Metropolitan Washington Council of Governments

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#### MEETING ATTENDEES

##### MEMBERS, ALTERNATES, AND PARTICIPANTS

- Melissa Chow (WMATA)
- Shweta Dixit (Loudoun Co. DTCL)\*
- John (Jay) Evans (Cambridge Systematics)
- Eric Graye (M-NCPPC, Montgomery Co.)
- Bob Josef (VDOT)
- Monisha Khurana (AECOM)\*
- Jaesup Lee (M-NCPPC, Montgomery Co.)
- Yuanjun Li (M-NCPPC, Montgomery Co.)
- Feng Liu (Cambridge Systematics)
- Krishna Patnam (AECOM)\*
- Prasad Pulaguntla (Arlington Co. DES)
- Kari Snyder (MDOT)
- Dan Stevens (Fairfax County DOT)
- Steve Weller (CH2M HILL)
- Ryan Westrom (DDOT)
- Jongsun Won (PTV Group)
- Qian (Cherry) Xiong (T.Y. Lin International)

##### COG STAFF

- Andrew Austin
- William Bacon
- Anant Choudhary
- Joe Davis
- Wanda Hamlin
- Charlene Howard
- Hamid Humeida
- Ron Milone
- Jessica Mirr
- Mark Moran
- Dzung Ngo
- Jane Posey
- Wenjing Pu
- Rich Roisman
- Meseret Seifu
- Dusan Vuksan
- Feng Xie
- Jim Yin

\* Attended the meeting remotely (via WebEx or teleconference).

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This meeting of the Travel Forecasting Subcommittee (TFS) was chaired by Mr. Westrom.

### **1. INTRODUCTIONS AND APPROVAL OF MEETING HIGHLIGHTS FROM THE JULY 17, 2015 MEETING**

After introductions, the highlights from the July 17, 2015 meeting of the TFS were approved without change.

### **2. OVERVIEW OF THE DRAFT 2015 CLRP AMENDMENT**

This item was presented by Mr. Austin, who distributed copies of his presentation slides. Mr. Austin briefed the subcommittee on the draft 2015 Amendment to the Constrained Long-Range Transportation Plan (CLRP) that has been used in the most recent air quality conformity work. The Plan was presented to the TPB on September 16, and will be considered for approval by the TPB in October.

Regarding slide 8 (“Major Additions and Changes for 2015”), Mr. Milone asked whether the length of bike lanes was centerline miles. Mr. Austin confirmed that the units were centerline miles. Mr. Westrom noted that, in some cases, the dates associated with projects seemed out of date, such as project completion dates, and he asked why this was the case. Mr. Austin explained that the project dates in the CLRP are supplied by the project sponsors, principally the state DOTs, as of February. Mr. Westrom asked what happens if a state DOT gives an incorrect date. Mr. Austin replied that TPB staff is required to use the dates given by the project sponsors. Regarding slide 11, Mr. Milone asked whether the US 1 BRT project was in last year’s CLRP. Mr. Austin responded that it was not, so it is a new project. Mr. Milone noted that the 9 centerline miles of bike lanes in the District would result in a reduction in roadway capacity in downtown DC, which will have an effect on congestion downtown. Mr. Westrom stated that these are essentially road diets, noting that the effect of such changes were studied via a model.

### **3. BRIEFING ON THE DRAFT AIR QUALITY CONFORMITY ANALYSIS OF THE DRAFT 2015 AMENDMENT**

This item was presented by Ms. Posey, who distributed copies of her presentation slides. Ms. Posey briefed the subcommittee on the draft air quality conformity (AQC) analysis of the draft 2015 CLRP Amendment. The analysis was presented to the TPB on September 16, and will be considered for approval by the TPB in October. She mentioned that VDOT had asked COG to model two alternatives (Alternatives A and B) pertaining to varying access ramp configurations for the planned I-66 HOT lanes project outside of the Capital Beltway. More recently, VDOT has developed a locally preferred alternative (LPA) that was derived from the two alternatives. She noted that this LPA is not part of the current AQC analysis, but it would be considered as part of the next AQC analysis. She said that VDOT is asking that Alternative B be adopted for this year’s CLRP, since the network coding most closely resembles that of the LPA. Mr. Milone noted that, due to the VDOT request, TPB staff ran multiple alternatives for 2025 and beyond. However, when people request the latest set of model and networks, TPB staff will transmit only the Alternative B scenario, presuming that the TPB approves the 2015 CLRP at its October meeting. Mr. Josef asked whether the Alternative B network will become the officially adopted network. Mr. Milone confirmed that that was correct.

Regarding slide 5, which was about using the vehicle identification number (VIN) database, Mr. Josef asked whether there have been any privacy concerns with collecting the VIN data. Ms. Posey said that the data is reported at an aggregate level of analysis and so privacy concerns are not an issue.

Ms. Posey noted, on slide 18, that TPB staff will prepare a transmittal package of the latest model and inputs by the end of November, presuming the TPB approves the AQC analysis of the CLRP at its meeting in October.

Mr. Lee asked about how changing governmental standards would affect the way that emissions are calculated. Ms. Posey noted that there are two sets of standards: 1) the standards for auto manufacturers, such as the CAFE standards and the Tier-3 standards; and 2) the standards for MPOs and state governments, such as the new ozone standard. Mr. Lee then asked what happens if the composition of the region's vehicle fleet changes over time. Ms. Posey noted that that is the reason why COG uses the VIN database – to track changes in the vehicle fleet, such as the rate at which older, more polluting vehicles are replaced by newer, cleaner vehicles. In addition to the emissions forecasts made by COG, Mr. Westrom asked whether COG has historical emissions data. Ms. Posey said that COG does have such data, noting that we have actual air quality monitor data. She indicated that an example of such data could be posted to the COG website (see, for example, pp. 10 & 13 of this [document](#)). Mr. Westrom also asked about the assumptions used in the regional travel model regarding VMT per capita. Ms. Posey noted that VMT per capita is not an input assumption, but is rather a derived output from the model (i.e., the travel model estimates VMT, which is then divided by the relevant population number to get VMT per capita). Mr. Westrom noted that it would be interesting to see a chart of how VMT per capita has changed over time. Mr. Vuksan mentioned that the change in VMT per capita is part of the next presentation (slides 8 & 14).

#### **4. BRIEFING ON THE PERFORMANCE ANALYSIS OF THE DRAFT 2015 CLRP AMENDMENT**

This item was presented by Mr. Vuksan, who distributed copies of his presentation slides. He noted that he was making the presentation on behalf of Mr. Sonenklar, who was currently out of the office. Mr. Vuksan briefed the subcommittee on this year's performance analysis of the draft 2015 CLRP Amendment, including an assessment of how well the CLRP supports the Regional Transportation Priorities Plan (RTPP). Mr. Vuksan noted that this presentation was very similar to one made to the TPB earlier in the month. He also noted that the information shown in the presentation is for the TPB planning area, which is a subset of the TPB modeled area. Mr. Vuksan said that the performance analysis includes only Alternative B of the I-66, inside-the-Beltway project (slide 3). Mr. Vuksan said that the general findings in the performance analysis were similar to those of previous performance analyses in recent years.

Regarding slide 10 (“Mode Choice: Share of Trips by Mode”), Mr. Josef wanted know why the model was predicting an increase in non-motorized (walk and bike) trips between 2015 and 2040, both for all trips and work trips. Mr. Vuksan noted that the increase in non-motorized trips was due mainly to increases in the density of jobs and housing. Mr. Vuksan mentioned that non-motorized trips are not a part of the mode choice model, but are included in the trip generation step, so the chart actually shows trip ends by mode, not trips by mode. Mr. Milone noted that the increase is also due to the fact that the density in mixed use areas is going up over time, which is due, in part, to the fact that much of the future land use growth will occur in activity centers, which tend to be more walkable than areas outside of activity centers.

Mr. Vuksan noted that slide 11 (“Mode Choice: Metrorail Constraint”) had updated information, compared to that which was presented to the TPB earlier this month. This slide made use of strike/add notation to make clear what had been changed.

Regarding slide 21 (“Access to Jobs: Change in Access to Jobs by Automobile”), Mr. Evans wanted to know why the change in accessibility by auto seemed to be so jurisdiction-based. For example, the

model is predicting large losses in automobile accessibility in Prince George's Co., but these losses do not seem to show up in the District. Similarly, Arlington seems to show large losses in accessibility that do not show up in neighboring Fairfax Co. Mr. Vuksan responded that, in the base year (2015), many of the areas that appear in dark red can reach downtown DC within 45 minutes (downtown DC has the region's largest concentration of jobs). But, in the out-year of the forecast (2040), the increase in roadway congestion means that these locations can no longer reach downtown DC in 45 minutes. Mr. Vuksan also noted that, outside of downtown DC, the western side of the region has the Tysons Corner area with all of its jobs, but there is no similar employment hub in the eastern side of the region. So, even in cases where areas in the western part of the region can no longer reach downtown DC in 45 minutes, they are still within a 45-minute drive to job centers in the western part of the region.

## **5. STATUS REPORT ON COG/TPB'S TRAVEL DEMAND MODELING IMPROVEMENT EFFORTS**

This item was presented by Mr. Evans. Although he did not distribute copies of his presentation slides, he noted that they would be available TFS webpage after the meeting had concluded. Mr. Evans provided a status report on the COG/TPB's consultant-assistance project to improve the travel demand model. His presentation included three parts: 1) Status report on the existing FY 2015 task orders; 2) Summary of the comments received on the six FY 2015 end-of-fiscal year reports; and 3) Next steps. Under next steps, Mr. Evans indicated that the goal is to share the following items with the TFS by mid-October:

- Final versions of the six end-of-fiscal-year reports;
- A proposed action plan for beginning the implementation of the strategic plan for models development. The action plan would be focused on the first two of seven years in the plan. According to the plan, the first two years of improvements are focused on the existing trip-based travel model.

The six end-of-year reports had already undergone a 30-day review and comment from the TFS. By contrast, the short-term implementation plan has not yet been shared with the TFS, so it would undergo a review and comment period once the TFS had been informed that it had been posted to the TFS website.

Mr. Evans stated that, given that there was wide-ranging comments from modeling stakeholders, but there were only a handful of non-TPB staff who provided comments on the reports, he felt that that was an indication that most, though not all, were satisfied with the reports.<sup>1</sup> He said that the two main themes in the comments were: 1) Be careful in the updates that you make to the model; and 2) Let's get the model updated as quickly as possible. Ms. Li indicated that she felt that CS and TPB staff had done a generally good job with soliciting stakeholder input and putting together a series of reports that incorporated that input.

Mr. Milone wondered whether it would be a constructive use of time to put together a memo that responds to each comment received, or whether it would be better to simply update the reports as necessary and to devote the extra time into developing an action plan for implementation. No decision on this topic was made at the meeting. Mr. Milone proposed that CS and TPB staff present a proposed short-term implementation plan at the next (Nov.) TFS meeting. Mr. Westrom asked

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<sup>1</sup> About 50 people responded to the stakeholder survey conducted in February 2015 and about 15 non-TPB staff participated in the stakeholder meeting held on February 27.

whether there would be a comment period on the proposed implementation plan. Mr. Evans noted that many of the stakeholders would not want us to wait until the November TFS meeting to begin a comment period, which is why it was proposed to send the TFS the proposed short-term implementation plan as soon as it is ready (ideally mid-October). Ms. Li mentioned the need to have the travel model do better at differentiating between BRT and other competing transit modes. Mr. Milone pointed out that this was also one of the concerns expressed by WMATA. Mr. Evans noted that the key question is whether this distinction is made in mode choice or another step, such as path building/assignment. He noted that BMC, in its work to develop an ABM, has chosen to have less differentiation between transit sub-modes in mode choice (a “flattened mode choice model”) and more of the differentiation made in path building/assignment. Mr. Milone noted the challenge of getting the regional travel demand model to deal more fully with non-motorized modes, which serve as access modes to transit and modes in their own right. Ms. Li noted that it is a challenge to use a regional travel model to analyze non-motorized travel, due to the fact that regional models have a relatively coarse scale.

Ms. Jia re-iterated some of the comments that WMATA had already made, namely the interest in moving forward expeditiously to enhance the trip-based model so that it is better able to deal with modes such as transit (including transit sub-modes, such as BRT and LRT) and non-motorized modes. She felt that the strategic plan for models development should have included concrete plans for implementing short-term updates to the model. She noted that, when the strategic plan is presented to the TPB, the TPB staff would probably hear some of the same ideas from WMATA leadership, so it is better to hear the comment earlier on in the process. Mr. Evans provided a counterbalance to idea that a strategic plan should include a lot of specificity. He thought that a strategic plan was not the place for a lot of details and specificity, recommending, instead, that such implementation details should be developed in a second document that follows the broad strokes of the strategic plan. Ms. Jia indicated that WMATA might be able to provide additional resources to help TPB staff accomplish some of WMATA’s goals for short-term improvements to the regional travel model. Mr. Milone re-iterated that, since there is no October TFS meeting, the plan would be to transmit the short-term implementation plan to the TFS via e-mail as soon as it is ready (ideally in mid-October). Ms. Jia expressed an interest that there be some time to review the proposed implementation plan once it is shared with the TFS.

Referring to slide 11 (“Summary of Comments Received: Comment Group 6”), Mr. Westrom asked whether COG is going to consider reviewing the capabilities of software other than Cube. Mr. Evans said that his current assumption is that TPB staff would continue with the current software in the short term. Over the long term, such as during the transition to an activity-based model, TPB staff may want to consider performing a review of other modeling packages. But, such reviews can be time consuming. One participant mentioned that there is the potential, in the future, to eliminate the use of commercial transportation planning software, by, for example, switching to an open-source alternative, but, in the short term, that is not a realistic alternative for most practitioners.

## **6. PREVIEW OF THE 2015 WASHINGTON-BALTIMORE REGIONAL AIR PASSENGER SURVEY**

This item was presented by Mr. Roisman, who distributed copies of the presentation slides. Mr. Roisman presented a preview of the 2015 Regional Air Passenger Survey that is scheduled for October, including the sampling plan, data collected, and how the results will be used in the travel demand model and regional transportation planning process.

Mr. Milone asked if there had been any changes to the geography defining the Aviation Analysis Zones (AAZs). Mr. Roisman said that there had not been any changes, though he noted a land swap

that is occurring between Falls Church and Fairfax County that might have an effect on the geography of one or two AAZs, but he added that any impact would be very small. Mr. Milone asked how one currently accesses Dulles Airport using the Silver Line. Mr. Roisman responded that one takes the Silver Line to Wiehle-Reston East Station, then one catches either the Silver Line Express, which is a bus/motor coach, or catches the Fairfax Connector bus service. He also added that, as of now, one can still take the WMATA 5A bus from downtown DC. Regarding slides 7 and 9 (means of transportation to BWI and IAD, respectively), Mr. Westrom asked why Metrorail is listed as a separate mode (since one cannot directly access either of these two airports using Metrorail). Mr. Roisman stated that respondents are instructed in the survey to check only one mode of access to the airport, adding that they usually pick either the mode that they last used or the mode that they used for the longest duration, which could be Metrorail, even for airports that do not have direct Metrorail access. He added that this could be changed in the future to allow the respondent to check multiple access modes (this is the practice used in the COG Household Travel Survey). But for now, for purposes of consistency with past airport surveys, TPB staff has kept the question as a single mode of access to the airport. Ms. Li asked whether the survey is distributed to people in a random manner. Mr. Roisman indicated that it is a stratified random sample, stratified by designations such as domestic vs. international flights. Mr. Lee asked why October was chosen for the time period of the survey. Mr. Roisman said that the survey results are annualized (factored up to a full year), noting that October was selected because it has average travel conditions and includes a Monday holiday (Columbus Day). Also, October does not have the weather impacts of the winter and does not have the high level of leisure travel that occurs in the summer, which could skew results for annualizing the data. Mr. Evans noted that airport van and limo are very different travel options, but, on the survey, these two options are grouped as one choice. Mr. Roisman said that there used to be even more modes grouped in this category, but some of those had been broken out into their own category.

## **7. ROUNDTABLE INFORMATION SHARING AND OTHER BUSINESS**

Mr. Westrom noted two studies underway in the District of Columbia. First, DDOT is in the process of conducting a DC state rail plan (<http://www.dcrailplan.com/>). The study, which is focused on heavy rail, both freight and passenger (e.g., Amtrak and commuter rail), is about one-third of the way towards completion, with an expected completion date of summer 2016. Second, DDOT is about to begin a District of Columbia Multimodal Congestion Management Study. This study, which is a one-year project to be completed around September 2016, was requested by the DC Council. Consultant selection should begin soon. Mr. Westrom indicated that DDOT is interested in hearing from anyone with ideas about how to best capture multimodal measures of congestion.

Mr. Gray mentioned two modeling studies that are underway in Montgomery County. First, the Montgomery County Planning Department is coming to closure on the development of the Travel 4 Model, which is derived from the TPB Ver. 2.3 Model. The work is being conducted by VHB and the planning department staff. Second, the county is working with Fehr and Peers to review alternative modeling tools. The goal is to develop a strategic plan for Montgomery County about incorporating new modeling tools for the county. Mr. Gray said that the department is two months into this second study, with a goal of having the work completed by December 2015.

Regarding Virginia, Mr. Josef mentioned the two House bills that have resulted in two separate prioritization studies. First, House Bill 2 (2014) which is causing agencies statewide to apply for funding to advance transportation projects. By October 30, the application process should be complete. According to Mr. Josef, in Northern Virginia, someone will be using the TPB travel model as input to the prioritization process. Second, House Bill 599 (2012) requires the ranking a various transportation projects in Northern Virginia. Previously, this was focused on highway projects, but

now, the process is also being used to rank transit projects. The study is making use of TRANSIMS. The second round of funding is about to begin. Since some agencies could re-submit projects that, in the past, did not make the cut, this could result in different ratings for the same project. Mr. Milone mentioned that it might be good to have AECOM make a presentation to the TFS regarding the work they have done in this area.

Regarding Fairfax County, Mr. Kline mentioned that the update of the county travel model is continuing, with Cambridge Systematics being the consultant. He noted that the counting is conducting a network project in the Reston area, which is similar to the network study that was conducted earlier for Tysons. The study should answer the question of whether the grid needs fixing in any areas. He noted that his staff has spent a lot of time on the VDOT projects studying I-66, both inside and outside the Beltway. A Fairfax County Parkway study will begin around the start of 2016. He also mentioned the Braddock Road study that is ongoing, which is looking at access to, and possible use of, managed lanes.

Regarding Arlington County, Mr. Pulaguntla mentioned the accessibility tool that it is developing, which is based on NCHRP 770. They plan to use the tool to look at bike and pedestrian use in Crystal City.

## **8. NEXT MEETING DATE AND ADJOURNMENT**

The next scheduled meeting of the TFS is Friday, November 20, 2015 from 9:30 AM to 12:00 noon. The meeting adjourned around noon.

\*\*\* The meeting highlights were prepared by Mark Moran and Ron Milone \*\*\*