



NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

Meeting Notes

MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE MEETING

DATE: Tuesday, December 9, 2014
TIME: 12:30 PM
PLACE: COG, First Floor, Meeting Room 1
CHAIR: Jean Yves Point-du-Jour, Maryland State Highway Administration

Attendance:

Melissa Chow	WMATA
Scott Cowherd	VDOT (phone)
Elizabeth Habic	Maryland State Highway Administration (SHA)
Amy Tang McElwain	VDOT (phone)
Jean Yves Point-du-Jour	Maryland State Highway Administration (SHA)
Tom Scherer	Arlington County DES
John Thomas	Montgomery County Department of Transportation (phone)

Staff:

Andrew Meese	DTP
Erin Morrow	DTP
Wenjing Pu	DTP
Daivamani Sivasailam	DTP
Marco Trigueros	DTP

1. Welcome, Introductions, and Review of Notes

Notes from the October 14, 2014 meeting were reviewed. There were no comments.

2. Presentation on Climate Change Activities at the Maryland State Highway Administration

Ms. Habic gave a presentation on SHA's Climate Change Adaption Plan with Detailed Vulnerability Assessment. This work was conducted in part under a Federal Highway Administration (FHWA) Resiliency grant. The final report was turned in to FHWA in October and it is expected that SHA's report and the reports from other grantees will be published on the FHWA website in January. The report will be presented at the Transportation Research Board Annual Meeting in January. Ms. Habic

gave an overview of the FHWA draft framework for the vulnerability assessment, identification of future climate stressors, analysis tools used, results of the initial screening, and results of the vulnerability assessments and Hazard Vulnerability Index (HVI) calculations.

The SHA study assessed the vulnerability of the SHA roads (and some local roads) to flooding from sea level rise, increased precipitation, and storm surge due to future climate change forecasts. Other climate stressors (heat, wind) are forecasted for Maryland, but were outside the scope of this work. The most vulnerable areas were determined to be on Maryland's Eastern Shore and detailed analysis was focused there. GIS mapping showed areas of permanent inundation in some Eastern Shore counties in 2050. The HVI calculations considered flood levels as well as whether the road was part of an evacuation route.

Next steps for SHA's Climate Change Program include continuing statewide county vulnerability assessments, brainstorming adaptation options for HVI categories, alternatives evaluations with cost-benefits assessment, and coordination with counties. She noted that the 2050 forecast GIS layer is already being incorporated into SHA designs.

There was a question about whether SHA currently has a centralized system for tracking floods. There is not at this time. SHA has a map from the past 12 years or so where flooding has been included that is available, but it is not a living system. SHA reports flooding on major roads to CHART, but noted that some daily flooding may not be reported. She also noted that the travel forecasting division has been asked to look at the roads identified in the HVI calculations.

3. Analysis of Thanksgiving-Period Travel Using Vehicle Probe Data

Mr. Pu presented an analysis of the Thanksgiving-period travel that was conducted by TPB staff using the Vehicle Probe Project (VPP) Suite. The analysis was presented in the November 18th TPB Weekly Report. It compared pre- and post-Thanksgiving travel from 2012 to average travel conditions and showed the busiest times to travel on the region's highways. An animated map was included in the report which is on the MWCOG website. MWCOG's Office of Public Affairs informed Mr. Pu that this Weekly Report had received notable media coverage including WUSA-9, the Washington City Paper, and Dr. Gridlock in The Washington Post. Additionally, even though the analysis did not include Baltimore data, the Baltimore CBS affiliate interviewed the author of the TPB Weekly Report. After Thanksgiving, Dr. Gridlock wrote a follow-up column noting the impact of the Wednesday storm on typical travel plans. Because of the positive feedback and media coverage of this analysis, staff is brainstorming other analyses that could be conducted with the VPP Suite that would be interesting for future TPB Weekly Reports such as making the Thanksgiving travel analysis an annual feature and completing a similar analysis for the Fourth of July.

Mr. Pu addressed some frequently asked questions that he had received about the analysis. The analysis only looked at a subset of roads due to a threshold imposed by the VPP Suite. The analysis used 2012 data instead of 2013 because of anomalies found in the 2013 data. He has expressed these concerns to the developers of the VPP Suite.

Ms. Chow was asked whether WMATA had looked at Thanksgiving travel. She noted that WMATA regularly looks at rail travel, but she did not think that it had published anything specific. Ms. Chow was asked about weather and vulnerabilities to WMATA's rail system. She noted that there are tunnels that have flooding issues and WMATA is working to address those. An upcoming major project will address tunnel flooding near the Bethesda Station on the Red Line. Ms. Morrow commented that she would like to invite someone from WMATA to speak to MOITS about its climate adaptation/resiliency measures at a future meeting.

Mr. Cowherd noted that VDOT provided a links to Thanksgiving travel information from neighboring states on their 511 site and mobile app and would like to work with those neighboring states next year to have reciprocal links on their sites.

4. **Discussion of Proposed Changes to the Funding Mechanism of the I-95 Corridor Coalition Vehicle Probe Project Suite**

TPB staff is able to access vehicle probe data through the I-95 Corridor Coalition due in large part to MDOT, VDOT, and DDOT's investment with the Coalition. The VPP Suite has been paid for through a variety of sources through the years. Due to increasing costs for development, maintenance, and data storage, the I-95 Corridor Coalition has decided that a new funding mechanism needs to be established for the VPP Suite. A letter was sent to VPP Suite users in November. TPB is an affiliate member and is dependent on the decisions made by MDOT, VDOT, and DDOT. If a state chooses not to sign on, there is a pricing structure for agencies such as MWCOG. The three states were in the process of considering whether they will continue to fund the VPP Suite; Mr. Meese was hopeful that they would. The purpose of this agenda item is to reiterate to MOITS how important access to the VPP Suite is to the MOITS work item. If it ends up that one or more of the states choose against funding at this time, TPB would have to look at whether it can provide funding and at what level. Mr. Cowherd shared the justification that he used to encourage VDOT to fund the VPP Suite. He polled VDOT and other study groups, like the University of Virginia, to find out how they use the VPP Suite. He also polled other agencies that are supported by VDOT's affiliation with the I-95 Corridor Coalition. He said that the funding request is under review right now and feedback will be provided to the I-95 Corridor Coalition by December 16th. He noted that it is challenging in the DOT world to come up with funding, but he sees the VPP Suite as a valuable data source.

5. **Updated on Regional Emergency Support Function 1 – Emergency Transportation Committee (RESF-1) and Urban Area Security Initiative (UASI) Activities**

Mr. Sivasailam provided the update for this item. RESF-1 met on November 20, 2014. Most of the meeting was spent discussing the report card developed by the Project Management Office (PMO) for the four 2014 UASI grants under RESF-1. The four grants are: two grants to support RITIS, one for the states to share evacuation support trailers, and one to provide traffic signal power back-up which Mr. Sivasailam is working on. The report card requirement was put into place after the applications for the grants were submitted. The RESF-1 co-chairs made a decision that every month; two of the projects will provide a status report. The traffic signal back-up project will present at the December

18th meeting. The PMO has come up with new guidelines for applicants for the current (FY 15) cycle that will be announced soon.

6. Update on Traffic Signal-Related Activities

Mr. Trigueros provided the update for this item. The Traffic Signals Subcommittee met on December 4, 2014. Most of the discussion was on the power back-up survey that is conducted annually. Staff are hoping to get a couple more entries before the survey is finalized. One committee that will receive the results of the survey is RESF-1 for use in the UASI process. The Emergency Preparedness Council is also interested in the results of the survey.

TPB staff conducted an analysis on the impact of traffic signal timing projects on congestion using the VPP Suite. This analysis was a before and after study of the City of Alexandria's traffic responsive signal system. Staff found that there is better performance in the morning peak period and midday, but the PM peak had the same congestion. Those results were not unexpected. This is the second time staff conducted an analysis of arterial facilities using the VPP Suite. The first was a before and after study of DDOT's traffic signal timing project in SE and SW DC.

Mr. Trigueros was asked about the outstanding responses to the traffic signal power back-up survey. Staff is waiting for two major agencies which operate approximately half of the signals in the region and the survey would not be complete without their responses.

7. 2014 Freeway Congestion Monitoring Using Aerial Surveying Draft Report

Mr. Sivasailam told MOITS that the draft report for the 2014 aerial freeway survey conducted by Skycomp, Inc. is available on the MOITS website. The triennial aerial survey is part of the Congestion Management Process.

In a change for this year, data were collected for each road on three days instead of four based on an analysis of data collected from the previous survey. With the funding saved, Skycomp proposed a new pilot project using one second time-lapse (TLAP) photography using stationary helicopters. Data were collected at nine sites selected by staff. This data has not yet been analyzed and it is not included in this report.

In the draft report, performance measures are reported for each route surveyed. There is a "Top 10" list of congested locations (highest density) and a "Top 5" list of longest delay corridor in both the AM and PM peak. Certain regionally significant facilities (I-495, I-66, I-270) were further analyzed by comparing to previous reports. The report also has a qualitative discussion of trends and major changes from previous surveys. Mr. Sivasailam showed the subcommittee some of the exhibits from the report. He noted that there has been improvement on the Beltway main lanes in the morning due to the Express Lanes, but the location on the Inner Loop where the Express Lanes end need more study because there is an increase in congestion, compared to previous surveys. This is one of the locations surveyed with TLAP photography. The Woodrow Wilson Bridge showed free flow conditions in the 2011 survey; however, the 2014 survey showed that congestion has returned. Mr. Sivasailam noted that staff will be

studying this location more to see if the cause can be determined. On the Beltway Inner Loop in Montgomery County, congestion has improved which is possibly due to the opening of the ICC. Mr. Meese noted that there was construction on one of the bridges on that segment of the Beltway and staff should check to see if that impacted the findings. It was noted that some comparisons in the report were between 2008 and 2014 instead of 2011 and 2014 because of the extensive construction on the Beltway in Virginia during 2011. Mr. Sivasailam was asked if the results of the aerial survey were compared to volume counts. He responded that this comparison is possible. Mr. Pu asked if Skycomp calculated regional lane miles of congestion for 2014 as was done in 2011. Mr. Sivasailam responded that it was not done this year, but the data are available.

Staff is reviewing the draft report. MOITS Subcommittee members are welcome to review and comment on the report by December 19th. Staff will be working with the consultant to finalize the report which will be presented to the TPB Technical Committee and eventually the TPB. The TLAP information from the nine locations will be presented to MOITS and other committees when it is available.

8. **Other Business**

Mr. Meese noted that the next meeting is scheduled to meet on January 6, 2015, which is a week before its regular time, due to the Transportation Research Board Annual Meeting.

Staff were listening to the federal *Let's Talk Performance Webinar: Linking Performance Measures to Improved Performance Outcomes* at 2 pm and MOITS members were welcome to stay.

9. **Adjournment**