FY 2019



Work Program Progress Report May 2019 FY 2019

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS 777 NORTH CAPITOL STREET, N.E., SUITE 300 WASHINGTON, D.C. 20002-4239 The TPB approved its FY 2019 Unified Planning Work Program (UPWP) in March 2018 and amended it on March 20, 2019. The TPB Work Program Progress Report provides a short summary of each activity for the month May. Please reference the 2019 UPWP for details concerning the approved budget and work description for each task. The following graphic identifies all the activities in the UPWP.

1. LONG-RANGE TRANSPORTATION PLANNING

- 1.1 Long-Range Transportation Plan
- 1.2 Long-Range Plan Task Force

2. PERFORMANCE-BASED PLANNING AND PROGRAMMING

- 2.1 Performance-Based Planning
- 2.2 Transportation Improvement Program (TIP)

3. MOBILE EMISSIONS PLANNING

- 3.1 Air Quality Conformity
- 3.2 Mobile Emissions Analysis

4. PLANNING PROGRAMS

- 4.1 Congestion Management Process
- 4.2 Systems Performance, Operations and Technology Planning
- 4.3 Transportation Emergency Preparedness Planning
- 4.4 Transportation Safety Planning
- 4.5 Bicycle and Pedestrian Planning
- 4.6 Regional Public Transportation Planning
- 4.7 Freight Planning
- 4.8 Metropolitan Area Transportation Operations Coordination Program Planning

5. TRAVEL FORECASTING

- 5.1 Network Development
- 5.2 Models Development and Support

6. TRAVEL MONITORING AND DATA PROGRAMS

- 6.1 Household Travel Survey
- 6.2 Travel Monitoring Counts/Studies
- 6.3 Regional Transportation Data Clearinghouse
- 6.4 GIS Data

7. COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING COORDINATION

8. PUBLIC PARTICIPATION AND HUMAN SERVICE TRANSPORTATION COORDINATION

- 8.1 Public Participation
- 8.2 Communications
- 8.3 Human Service Transportation Coordination

9. TRANSPORTATION ALTERNATIVES AND LAND-USE COORDINATION PROGRAMS

10. TPB SUPPORT AND MANAGEMENT

- 10.1 Transportation Planning Board (TPB) Support and Management
- 10.2 Unified Planning Work Program (UPWP)

11. TECHNICAL ASSISTANCE

- 11.1 District of Columbia
- 11.2 Maryland
- 11.3 Virginia
- 11.4 WMATA

12. CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)

Task 1	BUDGET	Billed this month	% Funds Expended	UPWP Page
LONG RANGE TRANSPORTATION PLANNING	\$1,049,855	\$66,072	70%	27

1. LONG-RANGE TRANSPORTATION PLANNING

New staff was hired to manage long-range plan activities. Staff began developing an approach and a draft schedule for the next quadrennial plan update, which is expected to be approved in 2022.

Staff also coordinated the implementation of activities related to the aspirational initiatives in Visualize 2045. Among other things, staff continued working on follow-up to TPB Resolution R10-2019 which directed staff to conduct activities related to the implementation of three of the aspirational initiatives:

- Improve walk and bike access to transit Staff refined a network analysis to identify walkshed around high-capacity transit stations.
- Complete the National Capital Trail Staff continued to implement a work program for expanding the regional trail network to cover the entire TPB region.
- Provide more telecommuting and other options for commuting Staff and partners associated with the Commuter Connections Program continued to explore specific actions and programs that can be established/expanded to advance this initiative.

COG staff (who are not explicitly TPB staff) worked on activities to address another of the seven initiatives— "Bring jobs and hosing closer together." Resolution R10-2019 also encouraged regional coordination activities, led by TPB partners, to promote implementation of the initiatives "Expand bus rapid transit (BRT) regionwide," and "Expand the express highway network."

The TPB staff also began developing an approach and schedule for outreach and coordination with local TPB member jurisdictions to advance projects, programs and policies that promote the aspirational initiatives.

Staff conducted follow-ups to the federal certification review, including review of minutes and potential action items. Staff also participated in discussions on requirements for the next long-range plan.

Task 2	BUDGET	Billed this month	% Funds Expended	UPWP Page
PERFORMANCE-BASED PLANNING AND PROGRAMMING	\$701,890	\$56,057	74%	29

2. PERFORMANCE-BASED PLANNING AND PROGRAMMING

2.1 Performance-Based Planning

Staff supported briefings on MDOT's safety activities to the Technical Committee and the TPB, providing guidance and comments. Discussions with elected officials from Prince George's County also took place, with planning for June presentations to the Safety Subcommittee and the TPB Technical Committee.

Staff conducted follow-ups to the federal certification review, including review of minutes and potential action items.

2.2 Transportation Improvement Program (TIP)

At its meeting on May 3, the TPB Steering Committee approved two resolutions to amend the FY 2019-2024 TIP. The first amendment was requested by VDOT to include funding for the VA Route 28 Widening project between the Prince William County line and US Route 29 in Fairfax County. The second amendment added funding for the I-395 Sign Structure Improvements project, as requested by DDOT. The Steering Committee also reviewed an amendment to add funding for the Gov. Harry W. Nice/Sen. Thomas "Mac" Middleton Bridget Replacement Project and recommended that the amendment be considered for approval by the Transportation Planning Board at its meeting on May 15. At that meeting, the board decided to table the vote to amend the TIP until a later time.

TPB staff processed administrative modifications for four projects, as requested by DDOT and for three projects as requested by VDOT.

TPB staff began preparing for implementation of the EcoInteractive long-range plan/TIP/conformity database upgrade.

The financial summary for the FY 2019-2024 TIP was reviewed and updated as TIP amendments were approved.

Staff continued a discussion on technical capabilities with the contractor for the replacement of the ITIP Database and discussed necessary functionality for metropolitan planning purposes.

Task 3	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILE EMMISSIONS PLANNING	\$1,877,121	\$139,578	77%	33

3. MOBILE EMMISSIONS PLANNING

3.1 Air Quality Conformity

Department of Transportation Planning (DTP) staff made additional updates to the draft schedule for the upcoming TIP amendment and air quality conformity analysis, with most of the activities scheduled to take place in FY 2019. The TPB Technical Committee was briefed on the process, schedule, and requirements for an update of the Air Quality Conformity Analysis for the FY 2021-2024 Transportation Improvement Program (Item #4). Staff shared a memorandum with the committee requesting detailed transit coding information for the projects in the FY 2021-2024 TIP air quality conformity analysis. Staff also briefed the Travel Forecasting Subcommittee on the project solicitation and schedule of the air quality conformity analysis (Item #3).

Staff continued to coordinate work activities with VDOT regarding modifications to the Beltway HOT lanes project north of the Dulles Toll Road, specifically, on how best to account for the proposed project modifications in the air quality conformity analysis.

Staff attended a presentation by The Boring Company regarding the LOOP project designed to connect Washington and Baltimore via tunnels containing high-speed electric vehicles. The Boring Company representatives wanted to learn more about if and how this project should be included in regional planning documents.

Staff forwarded April meeting agenda items relating to the air quality consultation elements to all relevant agencies and public advisory committees in accordance with standard consultation procedures.

Erin Morrow, a DTP transportation engineer, was appointed to the Transportation Research Board's Transit Cooperative Research Program Project Panel H-58 on Transit Prioritization Scoring Methodology in Metropolitan Planning Organization Programming. She attended the panel kick-off meeting in May.

3.2 Mobile Emissions Analysis

DTP staff continued working closely with Department of Environmental Programs (DEP) staff on the development of a preliminary schedule for the base-year emissions inventory submittal to EPA as part of the 2015 ozone NAAQS requirements. On the Emissions Inventory Subcommittee call (Item #2), DEP staff discussed EPA's partial responses to the specific questions submitted by MWAQC-TAC members to the EPA in March. These questions, pertaining to the selection of the milestone year, vehicle registration data, pollutant list, and time-period of analysis, were submitted to the EPA to obtain the agency sign-off on the methodology and assumptions for this project in the areas of uncertainty. Regarding the technical activities related to this effort, DTP staff developed networks and conducted travel demand modeling activities for the 2017 base-year analysis in April. Mobile emissions modeling is expected to take place once the assumptions regarding vehicle registration data have been finalized, which was also discussed on the Emissions Inventory Subcommittee call (Item #3).

DTP staff conducted additional travel demand modeling analysis related to the update of regional greenhouse gas (GHG) inventories. In the month of May, staff prepared the networks and completed travel demand modeling activities for the 2015 analysis year. DTP emissions modelers began to develop mobile-source GHG inventories for analysis years 2012 and 2018.

DTP staff continued to work with DEP staff and state air agencies to facilitate various aspects of GHG planning activities. In the month of May, DTP staff provided the District of Columbia Department of Energy and the Environment with VMT data and relevant documentation. Also related to the GHG planning efforts, DTP staff attended a MDOT Climate Change webinar. DTP management and staff, along with DEP staff and COG's executive office representatives, began exploring the possibility of coordinating efforts with other Councils of Governments (COGs) and Metropolitan Planning Organizations (MPOs) regarding the Transportation and Climate Initiative (TCI). TCI is a regional collaboration of Mid-Atlantic and Northeast states (including the District of Columbia, Maryland, and Virginia) that has the goal of reducing transportation-sector GHG emissions through development of cleaner transportation systems. One of the goals of this potential COG/MPO coordination effort is to determine what role, if any, COGs and MPOs should have in what is primarily a state-led initiative. DTP staff participated in the kick-off call for the possible COG/MPO coordination effort as well as a webinar on TCI's Reference Case Assumptions. DTP emissions modelers prepared and conducted a technical training session on how the EPA's MOVES model is applied by DTP staff.

Task 4	BUDGET	Billed this month	% Funds Expended	UPWP Page
PLANNING PROGRAMS	\$1,859,037	\$147,778	92%	35

4. PLANNING PROGRAMS

4.1 Congestion Management Process

Staff participated in the May 8 meeting of the COG Cooperative Forecasting Subcommittee, presenting on experience with and potential further use of data visualization tools. Staff also participated in the I-95 Corridor Coalition's Transportation Disruption and Disaster Statistics (TDADS) May 16 steering committee meeting, and in a May 16 National Highway Institute webinar on freight congestion transportation performance management.

Preparations began for the June 20 meeting of the Vehicle Probe Data Users Group. Congestion dashboard analysis and report development continued. Data compilation and analysis began toward a future review of congestion impacts of the May to September 2019 platform repair-related shutdown of several Northern Virginia Blue Line and Yellow Line Metrorail stations.

4.2 Systems Performance, Operations and Technology Planning

The first of a series of member agency outreach interviews for the Systems Performance, Operations, and Technology (SPOT) program and Subcommittee (SPOTS) was conducted at the District Department of Transportation on May 14, discussing DDOT's own SPOT-related activities as well as DDOT's advice on future SPOTS activities.

Planning for a fall 2019 TPB forum on connected and autonomous vehicles continued. Development and integration of the Regional ITS Architecture update continued.

Staff attended or participated in the following May 2019 events that support current and future SPOT planning efforts:

- ITS Maryland-sponsored Cybersecurity Workshop, May 9.
- FHWA-sponsored "Let's Talk Performance" webinar, May 14.
- COG Climate Energy and Environmental Policy Committee (CEEPC) meeting, including resiliency and adaptation discussions, May 22.
- MDOT CHART Board Meeting, May 31.
- Staff participated in an NCHRP committee review regarding big data.

4.3 Transportation Emergency Preparedness Planning

The regularly scheduled May 8 meeting of the Transportation Emergency Preparedness Committee (R-ESF 1) was organized and conducted. Information needs and information sharing were discussed.

Staff continued to provide technical advice to ongoing COG stakeholder outreach following the November 2018 completion of the Traffic Incident Management Enhancement (TIME) Task Force, Initiative, and recommendations report.

4.4 Transportation Safety Planning

Preparations began for the scheduled June 4 meeting of the Transportation Safety Subcommittee, including coordination regarding a special presentation from Prince George's County Councilmember Monique Anderson-Walker on safety outreach she is spearheading.

In support of an upcoming (FY 2019 and FY 2020) consultant-supported study of analyses of regional roadway safety outcomes, a contract was executed, and notice to proceed was issued to the contractor. Coordination continued to convene an advisory group for this study, with a kickoff meeting anticipated in June.

4.5 Bicycle and Pedestrian Planning

The regularly scheduled May 21 meeting of the Bicycle and Pedestrian Subcommittee was organized and conducted. A key action at the May 21 meeting was the subcommittee's review and endorsement of trail selection criteria for the National Capital Regional Trail expansion project. The subcommittee also discussed the COG Household Travel Survey; regional roadway safety, targets, relationship to Vision Zero activities in the region, COG/TPB's upcoming safety consultant study; and 2019 Bike to Work Day, which had just taken place on May 17.

The May 30 Dockless Vehicles and Electric Scooters regional workshop was organized and conducted, drawing over 50 practitioners and stakeholders from around the region, discussing the experiences of ongoing pilot programs in the District of Columbia, Arlington County, Montgomery County, and the City of Baltimore, as well as observations from the National Park Service and from the Chair of TPB's Access for All Committee. In preparation for the workshop, staff briefed and gathered input from the Access for All Committee at their May 9 meeting.

As part of the Expand the National Capital Trail project, two site visits were conducted: with Prince William County, the City of Manassas, and the City of Manassas Park staffs jointly on May 2; and with Loudoun County staff on May 13. These site visits reviewed the availability of local GIS and

regional efforts toward designating an expanded network. Outreach to Charles County also took place toward an anticipated future site visit there.

Advice, coordination, and outreach were provided for the ongoing (April – May) spring Street Smart pedestrian and bicyclist safety campaign.

Staff attended or participated in the following May 2019 events that support current and future Bicycle and Pedestrian Planning efforts:

- Great American Rail Trail information event at the U.S. Capitol, May 8; portions of this trail will overlap with the National Capital Trail.
- Northern Virginia Pedestrian and Bicycle Safety TAC conference call, May 20.
- Arboretum Bridge public meeting at the National Arboretum, May 21; the Arboretum Bridge would be part of the National Capital Trail.
- Maryland Pedestrian Bicycle Emphasis Area Team, May 23 at the Baltimore Metropolitan Council.

4.6 Regional Public Transportation Planning

Staff planned for the Private Providers Annual Transit Forum and a Regional Public Transportation Subcommittee in June. Work continued on the State of Public Transportation report.

Staff coordinated for presentation at the June TPB Technical Committee two local briefings on transit planning in the region: Alexandria's network vision and NVTC's VA-7 BRT.

Staff continued work on the State of Public Transportation report. Staff participated in initial assessment of the effects of the Summer Platform Shutdown, including conference calls and discussion of analysis.

Staff attended the monthly WMATA JCC meeting and a Bus Transformation Project Open House and a Listening Session. Staff reviewed the Project documents, provided comments, and made preparations for June presentations to the TPB and Technical Committee.

4.7 Freight Planning

The regularly scheduled May 2 Freight Subcommittee meeting was organized and conducted. Agenda items included updates on the freight programs in Maryland, Virginia, and the District of Columbia and initial thoughts on a proposed 2020 Curbside Management Forum.

Staff attended the Railx Tech technology demonstration event on May 7 to review exhibits on the advanced technology the US freight railroads are employing to improve safety and efficiency.

4.8 MATOC

The Metropolitan Area Transportation Operations Coordination (MATOC) Program is an operational partnership of the region's major transportation agencies, funded outside the UPWP, but with certain planning support activities provided by TPB staff under this task.

The May 10 MATOC Steering Committee meeting was organized and conducted, continuing discussion of communications, coordination, and Traffic Incident Management topics, as well as continuing development of the draft FY2020 MATOC Work Plan. TPB staff provided review and comment on the draft FY2020 plan. Also discussed were the disruptive March 28 Capital Beltway/American Legion Bridge gasoline tanker truck incident, and the George Washington Memorial Parkway sinkhole incident (beginning May 11 and resulting in an ongoing lane closure).

The MATOC Operations Subcommittee hosted an expanded group of responders and stakeholders and conducted a May 22 after-action review workshop, held at the Virginia Department of Transportation offices, regarding the March 28 Beltway tanker incident.

Task 5	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL FORECASTING	\$2,154,091	\$166,120	86%	43

5. Travel Forecasting

5.1 Network Development

One of the major inputs to the regional travel demand forecasting model is a series of transportation networks, representing the regional highway and transit systems. Each year, staff develops a new base-year transit network, which is used for coding all subsequent transit networks. This year's base-year transit network represents year-2018 conditions. About half the transit agencies provide route information in an electronic, machine-processible format called GTFS. In May, staff continued to compare this year's GTFS data to last year's base-year transit network.

Road links in the highway network used by the travel model have traditionally not included street names. Staff has been working on an effort to add street names to highway links, which could be useful to those who edit the networks. Documentation is expected in June.

Staff began work to conduct a survey of about ten large MPOs to compare the techniques used by each MPO for managing and editing transportation networks use by the travel model.

In support of work to update regional greenhouse gas (GHG) inventories, staff helped develop a year-2005 transportation network that would be used by the travel model.

In support of the Travel Forecasting Subcommittee (TFS), described below, staff began preparing meeting highlights from the May 17 meeting. Staff also finished digitizing several boxes of older TFS meeting materials.

5.2 Model Development and Support

Travel Forecasting Subcommittee (TFS) met on May 17. The agenda included the following items: TPB's developmental travel demand forecasting models; Gen2/Ver. 2.5 Model status report; Gen3 Model status report; FY 2021-2026 TIP Update: Solicitation of Inputs and Air Quality Conformity Analysis; Study Preview: Market Assessment & Technical Feasibility for VRE-MARC Run through Service; and Introduction to WMATA's Trace Model.

Production-use, travel demand forecasting model: Generation-2/Ver. 2.3

Staff continued to implement a few minor updates to the Ver. 2.3 Model, which were essentially bug fixes, but which did not result in changes to the model output. Staff performed model runs to ensure that model results did not change. Staff also implemented an improved trip distribution procedure related to external travel, which had previously been implemented in the Ver. 2.5 Model. Staff conducted model runs of the updated Ver. 2.3 Model and summarized the results, which will soon be reviewed by staff.

In April, staff had updated the estimated consumer price index (CPI) used by the model. In May, staff documented the work. Staff contacted the software vendor (Citilabs) to inquire about the benefits and disadvantages of storing model input and output files in DBF and CSV format.

Developmental, travel demand forecasting model: Generation-2/Ver. 2.5

Staff continued testing, evaluation, and refinement of the Ver. 2.5 Model. The current version of the model is 2.5.13a, which includes 1) adjustments to jurisdictional motorized person trip adjustments in the trip generation step and 2) a model application correction to the speed-feedback process. Regarding the second item, traffic assignment speeds are now considered in the development of auto-access transit paths – in previous model versions, highway assignment speeds were not being used to inform auto-access paths.

Staff analyzed comparisons of 2014 estimated trips and 2007/08 observed trips by purpose and mode, at the jurisdictional level. The analysis indicated that the transit trips produced by the Ver 2.5 Model are currently under-estimated by about 10%. Staff feels that the observed travel targets originally used to validate the mode choice model in 2017 had some shortcomings that TPB staff might be able to improve. Staff believes the transit targets should be more carefully specified and the model should be re-validated. Staff reported these general findings to the TFS on May 17. The overall message conveyed to the TFS was that the Ver 2.5 Model is not yet ready for production use.

Contract staff made updates to the jurisdiction-level production-attraction adjustment factors that are used in trip generation. Staff also made updates to the way that congested speeds from highway assignment are reflected in the PT-format transit networks. Staff cleaned up space on one of the travel model servers (tms8) to make space for new model runs. Staff set up, executed, and summarized a series of base-year (2014) model runs for various tests. Staff prepared ArcGIS maps to compare modeled transit trips with observed transit trips from a merged survey data set. Staff wrote Python scripts to summarize model run times for each model step.

Developmental, travel demand forecasting model: Generation-3

A pre-proposal meeting was held on May 28 for the request for proposals for the Gen3 Model (RFP #19-015), which is to be COG's next-generation travel demand forecasting model. The meeting was attended by 13 vendors, some in person, some via teleconference. On May 31, Addendum #1 was also added to the Gen3 Model RFP webpage. The addendum included one correction to the RFP and a summary of the questions and answers from the pre-proposal meeting.

Other activities

Staff completed its work serving on a Technical Selection Committee (TSC) to review and score vendor proposals for COG's upcoming Big Data study. Staff updated the model documentation web page, including the featured documents for the Ver. 2.3.75 Model.

Data requests and model support: Staff serviced four data requests in May: Three requests were from consultants and one was from Arlington Co. Requested data included person-trip tables in CSV format, 2014 observed traffic count data, and the Version 2.3.75 Model.

Research into Travel Time Data: Staff wrote draft documentation about its recent research into ways to incorporate observed travel time information using Google's Distance Application Program Interface.

The National Transit Institute held a training course, hosted by COG, on the Federal Transit Administration's (FTA's) Simplified Trips-on-Project Software (STOPS). The course was attended by both COG and non-COG staff.

Several staff attended a Travel Model Improvement Program (TMIP) webinar entitled, "Spotlight on State, Regional and Local Agencies – ARC Session 3 DASH Visualization and Public Outreach."

Task 6	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL MONITORING AND DATA PROGRAMS	\$2,410,334	\$112,061	55%	45

6. TRAVEL MONITORING AND DATA PROGRAMS

6.1 Household Travel Survey

COG/TPB staff held two meetings with Resource Systems Group, Inc. (RSG), the survey contractor for the 2017/2018 COG/TPB Regional Travel Survey (RTS). For the May 2019 reporting period, the key tasks were focused on processing the data files for the RTS and determining the content of the final report from the survey contractor. COG/TPB staff worked on editing and cleaning the household, person, and trip files in the RTS, in addition to developing a work plan for proposed RTS tabulations.

6.2 Travel Monitoring Counts/Studies

Progress on the analysis of regional roadway safety outcomes study is now reported within Section 4.4 - Transportation Safety Planning. Please refer to this section to review progress on this item going forward.

6.3 Regional Transportation Data Clearinghouse

Staff finalized the technical memorandum describing the Regional Transportation Data Clearinghouse (RTDC) and delivered an overview presentation on the RTDC to the TPB Technical Committee on May 3.

Staff developed a memorandum detailing some inconsistencies found in the automated bicycle and pedestrian count data hosted in the RTDC that was downloaded from Bike Arlington. The memo will be shared with Arlington County staff.

Staff completed work on enhancing the dataset of electric vehicle (EV) charging stations. Staff updated the dataset in the RTDC and passed the new files onto Department of Environmental Programs (DEP) staff for review.

Staff continued revising SAS programs to read and summarize hourly vehicle volume and classification data. The modifications will streamline and automate the process resulting in fewer steps done in ArcGIS. This will increase efficiency in the long run.

Staff continued the project to inventory CTPP tabulations done in the past decade to be used to develop a workplan for tabulating CTPP data going forward.

Staff made additional improvements and fixes to the RTDC Data Viewer to address changes made to the underlying map services utilized by the application.

Staff held an informal meeting to discuss the opportunities for hosting additional aviation-related datasets in the RTDC.

Staff updated the metadata for the "Average Weekday Transit Ridership" map service layer to include some additional detail about the type of data contained in the file.

Staff did internet research on a vendor who contacted staff offering their services.

Staff received an inquiry from planning staff at WMATA on the availability of congestion-related data in the RTDC.

6.4 GIS Data (Technical Support)

Staff planned and participated in the GIS Committee/GDX Working Group meeting on May 21. Highlights of the meeting included: an update by staff on the Census Participant Statistical Areas 2020 Program (PSAP) and status reports on the NCR-GDX and CAD2GIS programs. In addition, the group discussed ideas for increasing Emergency Management interest in the NCR-GDX and revisiting the Minimum Essential Data Set (MEDS).

Staff prepared a status matrix and presented updates on the PSAP progress to the Cooperative Forecasting and Data Subcommittee on May 14 and to the Travel Forecasting Subcommittee on May 17. In addition, staff reviewed and provided feedback on the Special Use Block Groups identified by District of Columbia staff.

Staff attended the Maryland State Geographic Information Committee (MSGIC) meeting held on May 8 in Crownsville and the Chief Information Officers Committee (CIO) conference call on May 16.

Staff met with planning, transportation and GIS/IT staff from Prince William County on May 2 and from Loudoun County on May 13 in support of the TPB resolution to expand the National Capital Trail. Staff are currently waiting to receive spatial data from these jurisdictions. Staff received GIS data from Charles County in support of this resolution. Staff prepared a geodatabase of TPB's current bicycle and pedestrian data in Frederick County and provided the dataset to County staff.

Staff continued to refine network buffers/service areas for High Capacity Transit (HCT) stations. This included improving the HCT station data layer by adding additional station entrances for commuter rail and adjusting the location of current stations to improve accuracy. Using the refined buffer/service areas, staff also began to combine the results of the refined buffer/service areas with data from the Cooperative Forecast to begin to develop a preliminary list of priority stations. Staff continued to regularly meet on this project.

Staff helped refine a presentation abstract (on the use of Story Maps in Visualize 2045) submitted by fellow staff that was submitted to the Association of Metropolitan Planning Organizations (AMPO).

Staff worked with fellow DTP staff to adjust the Urbanized Areas/Zip Code map on the COG website; the map is featured on TPB's Enhanced Mobility webpage. Staff created a map of TPB committee members by location to illustrate the geographic distribution of participation in TPB activities. Staff are currently reviewing the product.

Staff worked with staff from COG's Information Technology and Facilities Management (ITFM) department to renew the SSL (server socket layers) digital certificate on the GIS web server. Staff upgraded ArcGIS Desktop software on several DTP staff member machines. Staff worked with Commuter Connections staff to advise and provide ArcGIS Enterprise software for their team's new GIS server. Staff is providing ongoing support as requested.

Task 7	BUDGET	Billed this month	% Funds Expended	UPWP Page
COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING COORDINATION	\$915,451	\$-24,844 (a correction)	87%	49

7. COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING COORDINATION

At the May 14 meeting of the Cooperative Forecasting Subcommittee, Kristen Hushour of the Fairfax County Department of Planning and Zoning briefed the subcommittee on the county's technical approach for preparing its cooperative forecasts of employment. John Kent of the COG/DCPS staff also briefed the subcommittee on the results of the 2018 Commercial Construction Indicators report, a leading indicator for the development of small-area cooperative

forecasts. Reviews of local jurisdictional forecasting methodologies as well as analysis of current land use development trends that inform and enhance the state of the region's forecasting capability and results in more reliable land activity forecasts used in the regional travel demand forecasting and long-range transportation planning activities.

On May 15, Paul DesJardin, Director of COG's Department of Community Planning and Services (DCPS), briefed the Arlington County Planning Division staff on the COG Board Housing Initiative. On May 17, DCPS Director DesJardin and COG Housing Programs Manager Hilary Chapman participated in the Montgomery County Affordable Housing Conference in Bethesda. The COG Board Housing Initiative seeks to identify the region's capacity for providing additional housing at appropriate locations and price points to accommodate future job growth anticipated in the region. This activity was first identified by the TPB Long-Range Plan Task Force and aligns with the Visualize 2045 Aspirational Initiative of bringing jobs and people closer together.

On May 20, Mr. DesJardin and Ms. Chapman participated in the Brookings / George Washington University Center for Washington Area Studies inaugural briefing on "The state of the Capital Region's Housing." The research confirmed that much of the region's housing production during the past two decades has occurred in the outer suburbs and that housing production has declined significantly.

To further advance the Board Housing Initiative, DCPS hosted a joint meeting of the region's Planning Directors Committee and Housing Directors Committee on May 21. Urban Institute Vice President, Margery Turner, briefed participants on updated research into the ideal cost points to address the region's future housing needs. Greater Washington Partnership (GWP) Vice President Catherine Buell, the sponsor of Urban Institute's research, briefed the members on the GWP and its interest in advancing the need for more housing in the region.

Also, on May 21, Mr. DesJardin, COG Executive Director Chuck Bean, and Ms. Chapman participated in the ULI Washington first community-based roll-out of "Increasing Housing Supply and Attainability: Improving Rules & Engagement to Build More Housing". In helping to frame the COG Board housing initiative, the report focuses on the connection between housing supply and attainability; the private sector risks associated with the development process; the changing demographic and consumer preferences influencing housing development; the challenges and benefits of community engagement; and the entitlement and approval processes that govern project approvals.

Also, during May, DCPS staff contacted staffs from the Baltimore Metropolitan Council (BMC) and the Fredericksburg Area MPO (FAMPO) to determine the existence of updates to their respective land use growth projections. In addition to COG member jurisdictions, DCPS staff acquires forecasts from surrounding regions to incorporate into the Cooperative Forecasts as inputs into the TPB travel demand and air quality modeling activities.

Task 8	BUDGET	Billed this month	% Funds Expended	UPWP Page
PUBLIC PARTICIPATION AND HUMAN SERVICES COORDINATION	\$1,261,894	\$44,286	54%	51

8. PUBLIC PARTICIPATION AND HUMAN SERVICES COORDINATION

8.1 Public Participation

Staff conducted the third and final session of this year's TPB's Community Leadership Institute on the evening of May 2. The institute is a three-day workshop on regional transportation for

community activists from throughout the region. This is the 16th session of the CLI, although it has not been conducted since 2015.

The Citizens Advisory Committee (CAC) met on Thursday, May 9. At the meeting staff briefed the committee on the Transportation Land-Use Connections program technical assistance grants and the Community Leadership Institute. The committee also provided advice on TPB communications efforts and discussed topics the committee would like to focus on in the year ahead.

Staff conducted internal discussions to determine how the recently completed evaluation of the TPB's public involvement activities can be used to focus and guide the TPB's work activities.

8.2 Communications

TPB News, the TPB's online newsletter, featured stories on the following subjects in May:

- "Save case on commuting: Register for Bike to Work Day"
- "One big region, all connected: Takeaways from the TPB's Community Leadership Institute"
- "D.C. region gears up for a record-breaking Bike to Work Day"
- "Bigger and better: 180,000 turn out for Bike to Work Day"
- "Commuter Connection helps commuters during Metro shutdown"

Throughout the month, TPB staff maintained an active presence on social media. Staff also updated pages on the COG website related to transportation.

8.3 Human Services Transportation Coordination

During the month of May, staff held an AFA committee meeting on May 9: Dr. Stephen Woolf of the Virginia Commonwealth University presented on the report "Uneven Opportunities: How Conditions for Wellness Vary Across the Metropolitan Washington Region," a study of health disparities, with an emphasis on findings related to transportation and equity. TPB staff provided information about the 2019 Enhanced Mobility Solicitation; anticipated funding, solicitation launch, and timeline for application and award. TPB's Public Participation and TLC Intern shared a summary of applications recommended for funding through TPB's FY 2020 Transportation Land Use Connections (TLC) Program. Of interest to the AFA were a Bus Stop Accessibility Inventory in Takoma Park, Maryland and a Microtransit Pilot Performance Assessment in Montgomery County, Maryland. TPB staff invited AFA members to provide input and attend the COG/TPB sponsored Dockless Bike and Scooter Share Workshop on May 30, 2019. Lastly AFA Chair Kacy Kostiuk facilitated discussion to determine AFA concerns and prioritize talking points for her allotted time on the Dockless Bike and Scooter Share Workshop agenda. Priority areas for AFA members included pathways/safety, lack of region-wide coordination, and the need for education.

Staff hosted a Grantee Best Practices Forum on May 29 where current grantees interacted and shared ideas that can be adapted and replicated to better serve the region and considered for application submittal in the 2019 Enhanced Mobility Solicitation.

AFA Chair Kacy Kostiuk presented AFA member feedback at the Dockless Bike and Scooter Share Workshop on May 30.

Preparation for the 2019 Enhanced Mobility Solicitation continued.

Task 9	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRANSPORTATION ALTERNATIVES (TAP) AND LAND USE CONNECTION (TLC) PROGRAMS	\$482,053	\$26,469	61%	55

9. TRANSPORTATION ALTERNATIVES (TAP) AND LAND USE CONNECTION (TLC) PROGRAMS

In May, the TLC projects for FY 2019 were underway as described below:

- DC (Barry Farm): The consultant discussed the final report with stakeholders to gather feedback. The consultant continued working on the final deliverable.
- MD (Montgomery County): The project and the final deliverable was finalized in April.
- MD (Montgomery County-Seneca): The consultant worked on the final deliverable, which was completed at the end of May.
- MD (Prince George's County-Cheverly): The consultant worked on the final deliverable, which was completed at the end of May.
- MD (Prince George's County-Forest Heights): A community meeting was held to present findings. The consultant worked on the final deliverable, which was completed at the end of May.
- MD (Prince George's County (Purple Line Parking Study): The consultant worked on the final deliverable, which was completed at the end of May.
- VA (Arlington County): The consultant worked on the final deliverable, which was completed at the end of May.
- VA (Fairfax County): A stakeholder meeting was held on May 8. The consultant worked on the final deliverable, which was completed at the end of May.
- VA (Prince William County): The consultant worked on the final deliverable, which was completed at the end of May.

For FY 2020, a TLC selection panel recommended 13 projects for funding and those recommendations were presented to the TPB Technical Committee on May 3. The TPB approved the projects on May 15, for a total of \$680,000. Following that action, staff began the consultant procurement process.

Applications for the Maryland Transportation Alternatives Set-Aside Program were due on May 15. Applications for the D.C. Transportation Alternatives Set-Aside Program were due on May 17. Staff began to process the applications for the National Capital Region. The TPB is scheduled to vote on both Maryland and D.C. projects at its meeting on July 24.

Task 10	BUDGET	Billed this month	% Funds Expended	UPWP Page
TPB SUPPORT AND MANAGEMENT	\$893,653	\$45,455	73%	57

10. TPB SUPPORT AND MANAGEMENT

TPB Support and Management

The TPB Technical Committee met on May 3. Agenda items included presentations and informational items such as TLC Recommendations for FY 2020, MDOT's Activities to Address Safety Challenges in the Region, Detailed Transit Assumptions for Visualize 2045, the Regional Transportation Data Clearinghouse, the TPB Subcommittee Resource Directory, and a Market Assessment & Technical Feasibility Study for VRE-MARC Run through Service.

The Transportation Planning Board met on May 15, 2019. Agenda items included reports of the TPB Technical Committee, the Access for All Advisory Committee (AFA) and Citizens Advisory Committee (CAC), and Steering Committee actions in addition to the report of the director. The board approved the FY 2020 TLC project recommendations. Informational items included presentations on MDOT's TIP Amendment concerning the Nice/Middleton Bridge Replacement, the Community Leadership Institute (CLI), MDOT's Activities to Address Safety Challenges in the Region, and an update on the 2017 - 2018 Regional Travel Survey.

This task includes activities not attributable to specific tasks in the work program but provides overall support for and management of the TPB and UPWP-related activities.

- Administrative arrangements (such as preparation and distribution of meeting materials) and staff support for TPB and its various Committees, Sub-Committees, Task Forces and special TPB work groups meetings.
- Respond to requests from TPB members, federal agencies, Congressional offices, media and others for information or data of a general transportation nature.
- Meet with TPB Board members and participating agency staff to discuss current and emerging regional transportation planning issues.
- Participate in meetings of other agencies whose programs and activities relate to and impact the TPB work program.
- Coordination of TPB Planning Activities with Program Directors and day-to-day management of and allocation of staff and financial resources
- Monitoring of all work program activities and expenditures

Staff support was provided for the monthly meetings of the following committees and subcommittees:

- State Technical Working Group (STWG)
- TPB Technical Committee
- TPB Steering Committee
- Transportation Planning Board (TPB)
- Bicycle & Pedestrian Subcommittee
- Regional Public Transportation Subcommittee (RPTS)
- Citizens Advisory Committee (CAC)
- Citizens Leadership Institute (CLI)
- Access for All (AFA)

Support activities from the administrative staffs included: meeting logistics with meeting rooms and amenities, copying and distribution of meeting materials, email/phone call follow ups. Additionally, staff also worked on monitoring work program activities, providing administrative assistance to senior staff and monitoring and prepare financial reports. Additionally, administrative staff work on monthly financial administration and management activity which includes review and finalization of monthly expense reports for all UPWP activities, development and submission of monthly UPWP invoices and any follow up activity with the funding agencies.

The Staff Director provided overall program management oversight to all the Department's activities. Work activities the Director was involved in during the month of May includes:

- Discussions, review and finalization of the agenda topics for the TPB's Technical Committee, State Transportation Working Group (STWG) and Board meetings. his includes meeting with the Program Directors and project staffs to review the progress and briefing materials.
- Participation in the STWG, TPB Technical Committee, TPB Steering Committee, TPB's Citizen's Advisory Committee and the TPB Board meetings.

- Participation in the bi-weekly meetings of the State Safety Oversight/Metro Safety Commission (SSO/MSC) Policy Work Group meetings. This "tri-state" group is working to reconstitute the existing Metro rail safety oversight Committee to comply with the requirement of the FAST Act.
- Metropolitan Washington Air Quality Committee

Other additional activities for the TPB Staff Director for the month of May 2019 includes:

- Leadership Greater Washington monthly session
- Joint COG Planning Directors & Housing Directors meeting
- Air Quality Conformity Discussion
- Meeting with MDOT, MdSHA, Boring Company and FHWA Re: Loop Project MPO Requirements
- Nice Bridge Next Steps Discussion with MDOT / MDTA
- BOS Study Strategic Committee Meeting
- Bus Transformation Project / Draft Strategy Listening Session

UPWP

The UPWP activities include:

- Supervise the preparation, negotiation, and approval of the annual work program and budget involving the State Transportation Agencies, the TPB Technical Committee, the TPB Technical Committee, the Steering Committee and the TPB.
- Preparation of monthly UPWP progress reports for each of the state agencies administering planning funding and prepare all necessary federal grant applications submissions.
- Review all monthly UPWP invoices going to each of the state agencies administering planning funding.

Task 11	BUDGET	Billed this month	% Funds Expended	UPWP Page
TECHNICAL ASSISTANCE	\$1,147,520	\$75,052	39%	59
District of Columbia	\$276,756	\$64,134	84%	59
Maryland	\$393,802	\$7,225	36%	61
Virginia	\$411,798	\$2,996	13%	63
WMATA	\$65,164	\$695	40%	65

11. TECHNICAL ASSISTANCE

11.1 District of Columbia

Program Development, Data Requests, and Miscellaneous Services

Staff attended the monthly State Technical Working Group / Technical Committee / Steering Committee/ TPB meeting cycle.

Staff participated in a meeting with DDOT's State and Regional Planning Manager to discuss potential support for the development and/or maintenance of a model for the District.

Traffic Counts and Highway Performance Monitoring System (HPMS) Support

Staff worked with DDOT staff to plan and participate in the May 22 HPMS Committee meeting. Staff updated the committee on the PCS, HERE, FTMS, and short-term data status as well as the 2018 traffic data development part of the submittal. Staff prepared a summary of the meeting which was shared with DDOT staff.

Staff produced the Traffic Submittal File, the Vehicle Summary, the Future AADT, the Submittal Letter (traffic portion), and metadata for the 2018 HPMS submission. Staff generated the PM3 reports for the District from RITIS using the NPMRDS Analytics tool.

Staff summarized and analyzed the April traffic data from PCS, FTMS, and HERE stations and shared the summary with DDOT staff for field inspection purposes. Staff reviewed and accepted 33 short term counts delivered by the contractor. Staff reviewed and approved Invoice #4 for the traffic counting contract. In addition, staff worked on archiving the 2018 traffic count files.

Staff prepared draft language for the traffic counting contract amendment exercising the first option year.

TIGER Grant Performance Monitoring Addendum

Progress for this item is reported in the Transit Planning section of this progress report.

Big Data Evaluation

This project is being jointly funded by the District of Columbia, Maryland, Virginia, and WMATA. The status of this project is provided under the Regional Transit/WMATA section of this progress report.

11.2. Maryland

Program Development, Data Requests, and Miscellaneous Services

Staff attended the monthly State Technical Working Group / Technical Committee / Steering Committee / TPB meeting cycle.

Staff participated in a meeting with staff from Maryland to discuss plans for the FY2020 UPWP MD Technical Assistance program.

Staff assisted with a request to share commuting flow data for St. Mary's, Calvert, and Charles Counties.

VRE-MARC Run Through Study

For the proposed assessment of the market potential for a one-seat commuter rail service between points in the State of Maryland and the Commonwealth of Virginia and its potential to influence development and revitalization of suburban commercial centers, a contract was executed with Foursquare ITP.

Staff presented an overview of the project during the May TPB Technical Committee meeting and Travel Forecasting Subcommittee meeting.

Big Data Evaluation

This project is jointly funded by the District of Columbia, Maryland, Virginia, and WMATA. The status of this project is provided under the Regional Transit/WMATA section of this progress report.

Traffic Relief Plan (TRP)

Staff attended the May I-495 & I-270 Managed Lanes Study Interagency Meeting to monitor the project development activities. Staff also worked with the project team and provided guidance related to demographic data assumptions for specific corridors and locations.

Maryland Technical Assistance (TLC Program)

As part of the Transportation/Land-Use Connections Program, four technical assistance projects in Maryland were fully or partially funded under this PE number. See TLC item above for further details about the TLC Program.

11.3. Virginia

Program Development, Data Requests, and Miscellaneous Services

Staff attended the monthly State Technical Working Group / Technical Committee / Steering Committee / TPB meeting cycle.

Staff participated in a meeting with staff from the Commonwealth of Virginia to discuss plans for the FY2020 UPWP VA Technical Assistance program.

Staff gathered information on transit operators' relationships with transportation network companies in the region.

Travel Monitoring Surveys

Staff planned and participated in bi-weekly check-in phone calls for the VDOT Mode Share Studies: I-66 and I-395 and for the VDOT Non-Motorized Traffic Study.

Staff reviewed the video provided by the consultant showing bike and pedestrian counts taken at the first two non-motorized counting locations. Staff determined that the count totals matched the videos. Staff planned and participated in an initial phone call on May 14 with VDOT staff and the consultant to review the initial counts and to finalize the reporting format. Following the phone call, staff sent out a revised roles and responsibilities list. Staff researched past Non-motorized study data availability through MioVision.

Staff contacted regional transit providers with a request for data in support of the I-66 and I-395 Mode Share Studies project, including data from the WMATA Trace Model.

VRE-MARC Run Through Study

This project is funded by Maryland and Virginia, please see the description under Maryland.

Big Data Evaluation

This project is being jointly funded by the District of Columbia, Maryland, Virginia, and WMATA. The status of this project is provided under the Regional Transit/WMATA section of this progress report.

Virginia Technical Assistance (TLC Program)

As part of the Transportation/Land-Use Connections Program, two technical assistance projects in Virginia were fully or partially funded under this PE number. See TLC item above for further details about the TLC Program.

11.4. Regional Transit/WMATA

Program Development, Data Requests, and Miscellaneous Services

Staff attended the monthly State Technical Working Group / Technical Committee / Steering Committee / TPB meeting cycle.

TIGER Grant Performance Monitoring Addendum

Progress for this item is reported in the Transit Planning section of this progress report.

Big Data Evaluation

For the proposed study to develop a framework to evaluate big data in regional travel and mobility, the Technical Selection Committee reviewed responses to the RFP in accordance with the method of award stated in the RFP.

12. CONTINUOUS AIRPORT SYSTEM PLANNING

Staff reviewed and internally finalized adjustments to the 2019 Washington-Baltimore Regional Air Passenger Survey instrument and survey distribution methodology.

Staff convened the Aviation Technical Subcommittee on May 23 where members reviewed and discussed proposed changes to the 2019 Washington-Baltimore Regional Air Passenger Survey instrument.

Staff developed a working draft of Phase 2 of the Regional Air System Plan (RASP).

FY 2019 TRANSPORTATION PLANNING BOARD COG/TPB BUDGET EXPENDITURE SUMMARY May 2019

	DC, MD and VA		BILLED	
ı	TA, FHWA and LOCA	FUNDS	THIS	% FUNDS
	BUDGET TOTAL	EXPENDED	MONTH	EXPENDED
1. Long-Range Planning				
Planning	1,049,855.00	729,690.64	66,072.36	70%
SUBTOTAL	1,049,855.00	729,690.64	66,072.36	70%
2. Performance-Based Planning and Programming	g			
Planning	350,945.00	269,281.55	20,348.70	77%
Transportation Improvement Plan	350,945.00	250,894.89	35,709.00	71%
SUBTOTAL	701,890.00	520,176.44	56,057.69	74%
3. Mobile Emissions Planning				
Air Quality Conformity	900,000.00	728,370.26	65,368.64	81%
Mobile Emissions Analysis	987,121.00	730,317.83	74,209.93	74%
SUBTOTAL	1,887,121.00	1,458,688.09	139,578.57	77%
4. Planning Programs				
Congestion Mgmt Process	425,000.00	405,756.93	36,358.28	95%
Planning Programs Sysem Pref. Ops Tech Planning	529,037.00	484,878.26	40,385.25	92%
Planning Programs Transp Emergency Preparednes	135,000.00	125,958.53	8,656.58	93%
Transportation Safety Planning	145,000.00	129,399.45	5,659.27	89%
Bicycle & Pedestrian Planning	155,000.00	141,359.31	15,874.25	91%
Regional Public Transit	175,000.00	167,907.08	13,838.39	96%
Freight Planning	160,000.00	142,591.46	15,749.57	89%
MATOC	135,000.00	119,946.25	11,256.55	89%
SUBTOTAL	1,859,037.00	1,717,797.26	147,778.13	92%
5. Travel Forecasting				
Software Support	150,000.00	123,344.50	13,142.27	82%
Network Development	826,200.00	787,356.62	59,532.73	95%
Models Development	1,177,891.00	936,874.96	93,445.26	80%
SUBTOTAL	2,154,091.00	1,847,576.08	166,120.26	86%
6. Travel Monitoring and Data Programs				
Trevel Monitoring Studies and Research	1,050,177.00	544,213.45	43,751.12	52%
Travel Monitoring Studies and Research	340,492.00	36,518.82	14,873.21	11%
Regional Transportation Data Clearinghouse	334,075.00	259,031.83	19,212.54	78%
GIS Data	685,590.00	474,394.38	34,224.71	69%
SUBTOTAL	2,410,334.00	1,314,158.47	112,061.59	55%
7. Cooperative Forecasting and Transportation P				
	lanning Coordination			
Cooperative Forecasting Coordination	lanning Coordination 915,451.00	795,203.27	***-24,844.77	87%

 $[\]verb| ***| The negative number is a correction/credit. The year-to-date expenses accurately capture this correction.$

FY 2019 TRANSPORTATION PLANNING BOARD COG/TPB BUDGET EXPENDITURE SUMMARY May 2019

	DC, MD and VA		BILLED						
F	TA, FHWA and LOCA	FUNDS	THIS	% FUNDS					
	BUDGET TOTAL	EXPENDED	MONTH	EXPENDED					
8. Public Participation and Human Service Transportation Coordination									
Public Participation	996,891.00	612,245.31	40,063.70	61%					
Human Service Trans Coordination	265,000.00	63,450.17	4,223.06	24%					
SUBTOTAL	1261891	675,695.48	44,286.76	54%					
9. Transportation Alternatives and Transportation									
Alternatives and TLC	482,053.00	291,833.59	26,469.05	61%					
SUBTOTAL	482,053.00	291,833.59	26,469.05	61%					
10. TPB Support and Management									
TPB Support and Mgmt	893,653.00	653,660.59	45,455.50	73%					
SUBTOTAL	893,653.00	653,660.59	45,455.50	73%					
SUBTOTAL CORE PROGRAM ITEMS 1-10	13,615,376.00	10,004,479.93	779,035.14	73%					
TECHNICAL ASSISTANCE									
District of Columbia	276,756.00	231,514.07	64,134.00	84%					
Maryland	393,802.00	141,241.53	7,225.74	36%					
Virginia	411,798.00	54,007.41	2,996.89	13%					
WMATA	65,164.00	26,130.57	695.85	40%					
Technical Assistance Program Total	1,147,520.00	452,893.58	75,052.49	39%					
TPB GRAND TOTAL	14,762,896.00	10,457,373.50	854,087.63	71%					

FY 2019 TRANSPORTATION PLANNING BOARD FINANCIAL STATUS OF TECHNICAL ASSISTANCE

May 2019 SUPPLEMENT 1

	TOTAL	TOTAL FTA/STA/LOC		PL FUNDS/LOC		
	AUTHORIZED	TOTAL	AUTHORIZED	FTA	AUTHORIZED	FHWA
	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES
A. District of Columbia						
DC Program Development	10,000.00	9,258.25	1,839.72	1,703.26	8,160.28	7,554.99
DDOT HPMS	235,000.00	212,002.77	43,233.52	39,002.66	191,766.48	173,000.11
OTHER TASK TBD	18,756.00	0.00	3,450.59	0.00	15,305.41	0.00
Tiger Grant Perf Mon Addendum	10,000.00	10,000.00	1,839.72	1,839.72	8,160.28	8,160.28
Big Data Study - DC	3,000.00	253.05	551.92	46.55	2,448.08	206.49
SUBTOTAL	276,756.00	231,514.07	50,915.47	42,592.20	225,840.53	188,921.86
B. Maryland						
MD Program Development	15,000.00	6,814.14	2,759.59	1,253.61	12,240.41	5,560.53
Project Planning Studies	100,000.00	69,049.77	18,397.24	12,703.25	81,602.76	56,346.52
Feasibility/Special Studies	25,000.00	0.00	4,599.31	0.00	20,400.69	0.00
Training, Misc and Tech Support	20,000.00	0.00	3,679.45	0.00	16,320.55	0.00
Transportation/Land Use Connection Program	160,000.00	63,840.59	29,435.59	11,744.91	130,564.41	52,095.68
Other Tasks TBD	53,802.00	0.00	9,898.08	0.00	43,903.92	0.00
MARC - VRE Runthrough - MD	15,000.00	1,220.72	2,759.59	224.58	12,240.41	996.14
Big Data Study -MD	5,000.00	316.30	919.86	58.19	4,080.14	258.11
SUBTOTAL	393,802.00	141,241.53	72,448.71	25,984.55	321,353.29	115,256.98
C. Virginia						
VA Program Dev & Data Document Processing	15,000.00	7,430.22	2,759.59	1,366.95	12,240.41	6,063.26
Travel Monitoring Surveys	150,000.00	4,040.21	27,595.86	743.29	122,404.14	3,296.92
Travel Modeling	40,000.00	0.00	7,358.90	0.00	32,641.10	0.00
Regional and SubRegion Studies	15,000.00	0.00	2,759.59	0.00	12,240.41	0.00
OTHER TASKS TBD	91,798.00	0.00	16,888.30	0.00	74,909.70	0.00
Transportation Land Use Connections	80,000.00	41,082.04	14,717.79	7,557.96	65,282.21	33,524.08
MARC - VRE Runthrough - VA	15,000.00	1,328.43	2,759.59	244.39	12,240.41	1,084.04
Big Data Study - VA	5,000.00	126.52	919.86	23.28	4,080.14	103.24
SUBTOTAL	411,798.00	54,007.41	75,759.48	9,935.87	336,038.52	44,071.54
D. WMATA						
Program Development	5,000.00	7,434.72	5,000.00	7,434.72	0.00	0.00
TBD	32,164.00	0.00	32,164.00	0.00	0.00	0.00
Tiger Grant Perf Mon Addendum	18,000.00	18,000.00	18,000.00	18,000.00	0.00	0.00
Big Data Study - WMATA	10,000.00	695.85	10,000.00	695.85	0.00	0.00
SUBTOTAL	65,164.00	26,130.57	65,164.00	26,130.57	0.00	0.00
GRAND TOTAL	1,147,520.00	452,893.58	264,287.65	104,643.19	883,232.35	348,250.38