

ITEM 7 - Action

March 19, 2014

Approval of Amendments to the FY 2014 Unified Planning Work Program (UPWP), and Approval of FY 2014 UPWP Carryover Funding to FY 2015

Staff

Recommendation: Adopt Resolution R11-2014 to amend the FY 2014 UPWP.

Adopt Resolution R12-2014 to approve the FY 2014 carryover funding to FY 2015.

Issues: None

Background: The Technical Committee at its March 7 meeting reviewed and approved the proposed carryover activities and budgets from the FY 2014 UPWP to the FY 2015 UPWP.

The final version of the FY 2015 UPWP will incorporate this carryover funding into the final work program to be submitted to the state departments of transportation and the Federal Highway and Transit Administrations.

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION TO AMEND THE FY 2014 UNIFIED PLANNING WORK PROGRAM
(UPWP) TO INCLUDE REVISED WORK STATEMENTS AND THE BUDGETS**

WHEREAS, the Joint Planning Regulations issued in February 2007 by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

WHEREAS, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

WHEREAS, the FY 2014 UPWP for the Washington Metropolitan Area was approved by the TPB on March 20, 2013; and

WHEREAS, revised work statements and budgets for projects in the FY 2014 UPWP have been developed by staff, the District Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA) to modify projects and identify funding which will be carried over into FY 2015, as described in the attached materials;

WHEREAS, at its March 7, 2014 meeting, the TPB Technical Committee was briefed on the proposed revised work statements and budgets for projects in the FY 2014 UPWP and recommended approval by the TPB;

NOW, THEREFORE, BE IT RESOLVED THAT the NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD amends the FY 2014 UPWP to include revised work statements and budgets, as described in the attached Memorandum of March 13, 2014 entitled: "FY 2014 UPWP Amendments to Include Revised Work Statements and Budgets" (pages A-1 through A-16).

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202

MEMORANDUM

March 13, 2014

TO: Transportation Planning Board

FROM: Gerald Miller
Acting Co-Director
Department of Transportation Planning

SUBJECT: FY 2014 UPWP Amendments to Include Revised Work Statements and Budgets

Attached are pages excerpted from the current FY 2014 UPWP indicating changes to the work statements and/or budgets for the following:

- 2C. Constrained Long-Range Plan (CLRP): Carryover \$100,000, which is available due staff unavailability and delay in proposed federal statewide and MPO planning rule, providing resources and additional time to develop how MAP-21 performance measures and targets will be incorporated into the CLRP.
- 2.B. Management, Operations, and Intelligent Transportation Systems (ITS) Planning: Carryover \$50,000, which is available due to delay in beginning an update of the Regional ITS Architecture, providing additional time to coordinate with stakeholders.
- 2.F Regional Bus Planning: Carryover \$50,000, which is available due staff unavailability, providing a forum for discussion of the development of the performance measures and selection of performance targets required under MAP-21, in order to coordinate with relevant providers of public transportation to ensure consistency to the maximum extent practicable.
- 2.H. Freight Planning: Carryover \$40,000, providing resources and additional time for new freight planning staff to complete an update of the Regional Freight Plan.
- 4.C. Models Development: Carryover \$50,000, which is available due to less need for consultant support, providing additional resources in FY2015 for consultant-assisted effort to improve the TPB travel model and to conduct focused research on selected technical aspects of travel modeling in order to keep abreast of best practices.
- 5.B. Congestion Monitoring and Analysis: Carryover \$80,000 to complete the triennial freeway congestion monitoring data collection project, undertaken on a three-year cycle since 1993 and begun in FY2014, providing additional time for data collection and analysis, while still allowing for completion of the project in calendar year 2014.

- 5.C. Travel Surveys and Analysis: Carryover \$800,000, which will be used to collect household travel survey data from 2,400 households in the fall of 2014 rather than in the spring.

6. Technical Assistance

- District of Columbia: Amend two project scopes and budgets and reduce budget for one project, and carry over \$19,833 for one project to FY 2015.
- Maryland: Reduce budgets for six projects, and carry over \$270,024 for six projects to FY 2015.
- Virginia: Reduce four project budgets, and carry over \$333,100 for three projects to FY 2015.
- WMATA: Reduce budget for three projects, and carry over \$26,700 for a project to FY 2015.

The total FY 2014 funding to be carried over is \$1,819,657

Deletions are shown in ~~strikeout~~ and additions in **bold**.

PROPOSED AMENDMENTS TO THE FY 2014 UPWP

1. C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

Oversight:	Technical Committee
Cost Estimate:	\$606,100 506,100
Products:	Documentation of the 2013 CLRP, Call for Projects for the 2014 CLRP, draft 2014 CLRP and documentation
Schedule:	July 2014

2. B. MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PLANNING

MAP-21 defines "Regional Transportation Systems Management and Operations (RTSMO)" as:

Integrated strategies to optimize the performance of existing infrastructure through the implementation of multimodal and intermodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of the transportation system.

Under this work task, TPB will provide opportunities for coordination and collaborative enhancement of transportation technology and operations in the region, consistent with MAP-21 RTSMO requirements, and advised by its Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee.

A key focus of MOITS planning is the region's non-recurring congestion, due to incidents or other day-to-day factors. A MOITS Strategic Plan was completed in 2010 and provided updated guidance and direction to the program. The MOITS program includes planning activities to support the following major topics:

- MAP-21: Address MAP-21 requirements related to MOITS, including:
 - Compile and analyze data to support the "system reliability" National Goal for Performance Management
 - Monitor federal rulemaking on performance measures for system reliability
 - Coordinate with member states on the establishment of system reliability targets
- ITS Data: The collection/compilation, processing, warehousing, and sharing of transportation systems usage and condition data from Intelligent Transportation Systems (ITS) sources
- Regional Transportation Management: Particularly in conjunction with the Metropolitan Area Transportation Operations Coordination (MATOC) Program (see also Task 2.1.); support the MOITS Technical Subcommittee in its long-range planning advisory role for the MATOC Program

- Multi-modal Coordination: Examination of traffic and transit management interactions in daily operations
- Coordination of day-to-day transportation operations planning with emergency preparedness in conjunction with the COG Regional Emergency Support Function 1 – Emergency Transportation Committee (see also Task 2.C.)
- Traveler Information: Real-time traveler information made available to the public
- Congestion Management Process: Technology and operations strategies to address non-recurring congestion aspects of the regional Congestion Management Process (see also Task 2.A.)
- Maintenance and Construction Coordination: Regional sharing of available maintenance and construction information for coordination purposes, in conjunction with MATOC's ongoing development of a regional construction coordination system
- Intelligent Transportation Systems (ITS) Architecture: **Maintain Begin development, to be completed in FY2015, of an updated version of the regional ITS architecture in accordance with federal law and regulations**
- Traffic Signals: Assist member agencies in the exchange and coordination of interjurisdictional traffic signal operations information and activities; examine traffic signal systems and operations from the regional perspective, including in conjunction with emergency planning needs
- Climate Change Adaptation: Monitor local and national practices regarding transportation operational procedures to adapt to climate change effects. Review the COG Regional Climate Adaption Plan to identify transportation operations-related climate change adaptation activities for the region's transportation agencies to consider
- MOITS Strategies: Analysis of strategies designed to reduce congestion, reduce emissions, and/or better utilize the existing transportation system.
- Member Agency Activities: Work as needed with the MOITS activities of the state and D.C. departments of transportation, the Washington Metropolitan Area Transit Authority, and other member agencies
- Coordinate with supra-regional management and operations activities of the Federal Highway Administration, the I-95 Corridor Coalition, and other relevant stakeholders
- Provide staff support to the MOITS Policy Task Force, MOITS Technical Subcommittee, MOITS Regional ITS Architecture Subcommittee, and MOITS Traffic Signals Subcommittee.

Oversight: Management, Operations, and Intelligent Transportation Systems (MOITS) Technical Subcommittee

Cost Estimate: ~~\$350,500~~ **\$300,500**

Products: Agendas, minutes, summaries, outreach materials as

needed; white paper(s) on technical issues as needed; revised regional ITS architecture; MOITS input to the CLRP as necessary; review and advice to MOITS planning activities around the region; documentation as necessary supporting MAP-21 requirements of MOITS planning

Schedule: Monthly

2.F. REGIONAL BUS PLANNING

This work activity will provide support to the Regional Bus Subcommittee for the coordination of bus planning throughout the Washington region, and for incorporating regional bus plans into the CLRP and TIP. The Regional Bus Subcommittee is a forum for local and commuter bus, rail transit, and commuter rail operators and other agencies involved in bus operation and connecting transit services. The Subcommittee focuses on bus planning as well as regional transit issues, such as data sharing and technical projects.

The major topics to be addressed in FY 2014 include the following:

- Continued refinement of a priority list of regional projects to improve bus transit services.
- Provide a forum for discussion of the development of the performance measures and selection of performance targets required under MAP-21, in order to coordinate with relevant providers of public transportation to ensure consistency to the maximum extent practicable.
- Development and publication of useful operations, customer, and financial data on regional bus services for TPB and public utilization.
- Coordination and evaluation of CLRP and TIP proposals and amendments with regard to bus transit service plan implementation.
- Provide technical advice and input regarding regional transportation and land use coordination, including the development of transit assumptions for TPB planning studies.
- Facilitation of technology transfer and information sharing as it relates to regional, state and local bus transit services, including for Bus Rapid Transit (BRT) projects, customer information, and other common issues.
- Coordination with other regional committees regarding bus transit participation in planning and training activities, including but not limited to the Regional Emergency Support Function (RESF) #1 at COG, and the MATOC Transit Task Force.
- Coordination with the TPB Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical

Subcommittee regarding integrated planning for bus services and street operations.

- Coordination with the TPB Access for All (AFA) Committee to enhance regional mobility for all populations.

Oversight:	Regional Bus Subcommittee
Cost Estimate:	\$460,000 110,000
Products:	Data compilation, reports on technical issues, and outreach materials
Schedule:	Monthly

2.H. FREIGHT PLANNING

Under this work task, TPB will provide opportunities for consideration, coordination, and collaborative enhancement of planning for freight movement, safety, facilities, and activities in the region. An updated Regional Freight Plan was completed in FY2010, and provides guidance for continued regional planning activities. Major topics to be addressed include the following:

- Support the TPB Freight Subcommittee.
- **Complete Begin development, to be completed in FY2015, of a new Regional Freight Plan.**
- Maintain the Regional Freight Plan and supporting information on the TPB website for member agency and public access.
- Ensure consideration of freight planning issues in overall metropolitan transportation planning, including:
 - Work proactively with the private sector for consideration of private sector freight issues. Identify topics of interest to private sector, often competing trucking and freight stakeholders.
 - Continue following up on recommendations from the Regional Freight Forum held in FY2011.
 - Advise the TPB and other committees in general on regional freight planning considerations for overall metropolitan transportation planning.
 - Coordinate with federal, state, and local freight planning activities.
- Address MAP-21 requirements related to freight planning, including:
 - Analyze available freight movement data for the region including FHWA Freight Analysis Framework total tonnage and total value data for truck, rail, air cargo, and maritime movements in our region; this data may inform freight performance measures.
 - Monitor federal rulemaking on freight performance measures.
 - Coordinate with member states on the establishment of freight targets.

- Coordinate with TPB travel monitoring and forecasting activities on freight considerations.
- Examine truck safety issues.
- Develop ongoing freight component input to the Constrained Long Range Plan (CLRP).
- Keep abreast of regional, state, and national freight planning issues.
- Undertake the "Freight Around the Region" project, to collect information and analyze each National Capital Region jurisdiction's role in goods movement and its contribution to the regional economy.
- Undertake freight stakeholder outreach with representatives of the freight community, including carriers, shippers, and other stakeholders, to gain their input on regional freight movement, safety and other issues and to gauge their interest in state and MPO planning and programming processes.
- Publish a periodic e-newsletter on regional freight planning issues.

Oversight: TPB Freight Subcommittee

Cost Estimate: ~~\$154,500~~ **\$114,500**

Products: ~~New Regional Freight Plan; data~~ **Data** compilation and outreach materials as needed; white paper(s) on technical issues as needed; structured interviews and summarized results; documentation as necessary supporting MAP-21 requirements of freight planning

Schedule: Bimonthly

4.C. MODELS DEVELOPMENT

Oversight: Travel Forecasting Subcommittee

Cost Estimate: ~~\$1,103,400~~ **1,053,400**

Products: Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process, where applicable.

Schedule: June 2015

5. B. CONGESTION MONITORING AND ANALYSIS

Congestion Monitoring supplies data for the Congestion Management Process (CMP - Item 2A) and Models Development (Item 4C). The program monitors congestion on both the freeway and the arterial highway systems, to understand both recurring and non-recurring congestion. Data collection methods include a combination of aerial

surveys, field data collection, and/or data procured from private sources. Examples of emerging technologies include probe-based data and Bluetooth-based data. As part of three-year cycles since 1993, in spring 2014 (**spanning portions of both FY2014 and FY2015**) an aerial survey of the region's freeway system will be conducted, results to be coordinated with other data sources under this task as well as the Congestion Management Process. Data collection methods and sources for both freeways and arterials will also be examined from the perspective of MAP-21 requirements, especially as related to the CMP.

Oversight: MOITS Technical Subcommittee

Cost Estimate: ~~\$363,200~~ **283,200**
\$90,000 carryover from FY 2013
~~\$453,200 total~~ **\$373,200 total**

Products: ~~Transportation~~ **Draft transportation** systems monitoring data sets and analysis reports from the aerial survey of the region's freeways; documentation as necessary supporting MAP-21 requirements of congestion monitoring and analysis

Schedule: June 2014

5. C. TRAVEL SURVEYS AND ANALYSIS

Household Travel Survey

In FY 2012-2013, the 2007/2008 Regional Household Travel Survey data was supplemented with collection of household travel survey data from 4800 households in 14 focused geographic subareas of the region. This additional household travel survey data collection was in response to the need expressed by local jurisdiction users of the household travel survey to have additional household samples in smaller geographic subareas to analyze specific aspects of daily travel behavior in these smaller geographic areas. In FY 2014, staff will continue to support users of TPB household travel survey data, update user documentation and provide technical assistance to the users of these survey data and collect additional household travel survey data.

The following work activities are proposed for FY 2014:

- Provide data, documentation, and technical support to users of 2007/2008 Regional Household Travel Survey and the Geographically-Focused Household Surveys conducted in 2011-2013. Update of survey data files and user documentation as required.
- Continue to mine data collected in the 2007/2008 Regional Household Travel Survey the Geographically-Focused Household Surveys conducted in 2011-2013 support analysis of regional growth and transportation issues of topical interest to the members of the TPB. Prepare information reports on various aspects of daily household and vehicle travel in the TPB modeled area.

- **Revise and re-tool the TPB’s current household travel survey data collection methodology to reduce average costs per completed household travel survey interview. Begin limited data collection with the new methodology in selected geographic sub-area to the extent feasible.**
- **Examine and evaluate the purchase of origin-destination trip data from third-party data providers to supplement or replace some of the collection of household travel survey data.**
- ~~Collect household travel survey data for 2,400 households in six focused geographic subareas of the region for more intensive analysis of specific growth and transportation issues. Examples of focused geographic subarea could include Metrorail station areas of a specific type, highway corridors with recent or planned major improvements, proposed light rail study area, or regional activity centers of with specific characteristics. Proposed focused geographic subareas for 2013 include: (1) Federal Center/Southwest/Navy Yard in DC (2) H Street Corridor NE in DC (3) Silver Spring in Montgomery County (4) US 1/Green Line in Prince George’s County (6) City of Fairfax and (6) City of Manassas. The proposed geographic subareas will be reviewed and subject to refinement by the TPB Technical Committee and local jurisdiction planning staff.~~
- ~~Collect household travel survey data for 2,400 households in six focused geographic subareas of the region for more intensive analysis of specific growth and transportation issues. Examples of focused geographic subarea could include Metrorail station areas of a specific type, highway corridors with recent or planned major improvements, proposed light rail study area, or regional activity centers of with specific characteristics. Proposed focused geographic subareas for FY 2014 include: (1) St Elizabeths/Anacostia (2) Fort Totten (3) Greenbelt (4) Kentlands (5) Tysons (6) Leesburg. The proposed geographic subareas will be reviewed and subject to refinement by the TPB Technical Committee and local jurisdiction planning staff.~~

Oversight: Travel Forecasting Subcommittee

Estimated Cost: \$740,400
 \$430,000 carryover from FY 2013
 \$ 1,170,400 total **370,400**

Product: **Limited** Household Travel Survey Data Collection and Processing, Household Travel Survey Analyses, Information Reports and Technical Memorandum, Maintenance of Travel Survey Data and Documentation

Schedule: June 201

6. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

4. Weigh In Motion (WIM) Station Analysis-Regional Bus Staging, Layover, and Parking Location Study

This task includes **the District's funding portion of the regional study to establish short-term solutions as well as a long-term regional vision for motorcoach operations. This study will convene regional stakeholders to analyze the need for bus staging, layover, and parking (i.e., short-term mid-day storage) locations in the District and Arlington County. This study will consider the need for such locations for the five distinct services identified in the DDOT 2011 Motorcoach Action Plan.** ~~data collection at the District's WIM station on I-295 and the nearby truck scales in conjunction with DDOT and the Metropolitan Police Department and subsequent analysis of the data to assess the difference in reported vehicle weights.~~

Cost Estimate: \$20,000
Product: **Technical Report** ~~Data and technical memorandum~~
Schedule: June 2014

5. Peak Period Street Restrictions Inventory-Loading Zone Sign Inventory Update

This task will develop **update** a GIS-based inventory of District **loading zone signs** ~~streets with peak period travel restrictions (e.g., No Standing).~~ Data will be compiled from existing sources and field **data collection and will include location coordinates and a digital image of each sign.**

Cost Estimate: ~~\$20,000~~ **\$58,000**
Product: Data and maps
Schedule: June 2014

6. Other Tasks Yet To Be Defined

Cost Estimate: ~~\$57,870~~ **0**

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: ~~\$360,433~~ \$340, 600

B. MARYLAND

1. Program Development Management

This work task will account for DTP staff time associated with the administration of this Technical Assistance work program throughout the year. Work activities would involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work

task also includes staff time needed for the development of the annual planning work program.

Cost Estimate: \$15,000
 \$15,000 carryover from FY 2013
 ~~\$30,000~~ total **20,000**

Schedule: On-going activity

2. Project Planning Studies

This work task will account for DTP staff time associated with the development of scopes of work for requested project. The work scope will account for technical support in travel demand modeling and alternative evaluations of ongoing and upcoming project planning studies. Work activities will also involve meeting with requesting agencies to discuss proposed projects, drafting and finalizing work statements and tasks, creating projects when authorized, attending project team meetings and progress reporting

Cost Estimate: \$100,000
 \$80,000 carryover from FY 2013
 ~~\$180,000~~ total **150,000**

Schedule: On-going activity

3. Feasibility/Special Studies

This work task will provide funding to support technical support on feasibility/special studies as requested by MDOT, SHA and other agencies. Work may include but not limited to technical support in ongoing corridor/subarea studies, initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities and scenario analyses. Project authorizations may occur throughout the fiscal year as priorities dictate to address transportation planning initiatives and strategic goals of MDOT, SHA and other agencies.

Cost Estimate: \$238,000
 \$70,000 carryover from FY 2013
 ~~\$308,000~~ total **208,000**

Schedule: On-going activity

4. Transportation Performance Measures

Project Level Evaluation: SHA requires measurable results on system performance benefits in order to compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. The results could be expressed in terms of Levels of Service, Travel Delay and mobility criteria, which will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects.

Sub-Item Cost Estimate: \$15,000
\$30,000 carryover from FY 2013
\$45,000 total

Schedule: On-going activity

System Wide Evaluation: This work effort is designed: (1) to provide MDOT and SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data), and (3) to evaluate the environmental impacts of projects in terms of GHG and possibly other pollutants. TPB staff will periodically brief MDOT and SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives.

Sub-Item Cost Estimate: \$30,000
\$45,000 carryover from FY 2013
\$75,000 total

Schedule: On-going activity

Traffic Impacts Evaluation: This work effort is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria will be assessed for a variety of projects to appropriately consider their impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects.

Sub-Item Cost Estimate: \$18,000
\$30,000 carryover from FY 2013
\$48,000 total

Schedule: On-going activity

Cost Estimate: \$63,000
\$105,000 carryover from FY 2013
\$168,000 total **108,000**

Schedule: On-going activity

5. Training /Miscellaneous Technical Support

For training purposes, this work task will account for presentations and other forms of updating for MDOT, SHA and other modal staff on the latest regional data, modeling procedures, interagency coordination on periodic updates of the transportation networks, land use files, and the model itself. This task will also account for miscellaneous other tasks ranging for non- motorized data collection activities, organization and mapping of data, and other forms of database building in support of ongoing and upcoming planning

activities of MDOT, SHA and other model staff.

Cost Estimate: \$20,000
 \$10,000 carryover from FY 2013
 \$30,000 total

Schedule: On-going activity

6. Transportation / Land Use Connections Program

The Transportation / Land Use Connections (TLC) program is an effort to provide technical assistance to local governments in the Washington region in order to facilitate integrating land use and transportation planning at the community level. Begun as a 6 month regional pilot program in January 2007, the project was very well received. It was not only continued in subsequent years, but Maryland supplemented the regional effort with additional funds.

Cost Estimate: \$160,000

Product: Grant awards, technical reports from contractors

Schedule: June 2014

7. Human Services Transportation Study Follow-on and Support

~~In FY2013 a human service transportation coordination study identified alternate service-delivery models and funding mechanisms for the regional MetroAccess paratransit service, with a focus on Suburban Maryland. The study identified potential human service transportation coordination models and recommended an action plan for a pilot project with non-profit agencies serving people with developmental disabilities in Suburban Maryland. The study was jointly funded under the FY2013 UPWP Maryland and WMATA Technical Assistance work elements and was facilitated by the TPB staff. In FY2014, TPB staff will provide follow-up to the study, including additional work with MDOT, MTA, non-profit agencies, and private transportation providers to assist with implementation of the action plan. Additional work could include research, data collection, and stakeholder meetings to advance the action plan, and assessing existing MetroAccess alternatives in Suburban Maryland to support high quality and cost efficient transportation for people with disabilities.~~

~~Cost Estimate: \$40,000-0~~

~~Schedule: June 2014~~

8. Other Tasks yet to be defined

Other tasks are anticipated but not yet defined. This project is established to account for TPB staff time spent in responding to requests for technical assistance by MDOT, SHA, other modal agencies and jurisdictions whose scope of work or characteristics do not conform to the other work tasks of the Maryland Technical Assistance Program. Work under this project will be performed upon authorization by MDOT, SHA and/or other modal agencies and jurisdictions.

Cost Estimate: **\$10,000**
 \$20,024 carryover from FY 2013
 ~~\$30,024 total~~ **0**

TOTAL MARYLAND COST ESTIMATE: \$646,000
 \$300,024 carryover from FY 2013
 ~~\$946,024 total~~ **\$676,000 total**

C. VIRGINIA

1. Data/Documentation Processing

This work element accounts for DTP staff time associated with the administration of this Technical Assistance work program throughout the year. Work activities would involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work task also includes staff time to process requests for data/documents from Northern Virginia as advised by VDOT throughout the year.

Cost Estimate: ~~\$45,000~~ **7,000**

Product: Data, documentation, scopes of work, progress reports

2. Travel Monitoring and Survey

This program will establish a continuous travel monitoring program for major commuting routes in Northern Virginia, with a goal of sampling each route on a 2-3 year cycle. Collected data and analysis may include volume and occupancy data, travel time data, and other information. The program will also include collection of bicycle and pedestrian data at various locations throughout Northern Virginia, as identified by VDOT.

Cost Estimate: ~~\$450,000~~ **200,000**

Products: Program management plan, data and analysis, technical memorandum

Schedule: On-going activity

3. Travel Demand Modeling

This project is designed to assist VDOT in the development of, and the evaluation of results from the regional transportation travel demand model, as adapted for its use by VDOT.

Specific tasks undertaken will be identified throughout the year and are likely to include: developing forecasts and/or extracting specific information from the regional model forecasts for specific scenarios/options evolving out of ongoing studies and/or project

planning efforts; and assistance with documentation, training and customization of the regional travel demand forecasting model for the Northern Virginia sub-area per VDOT's requirements.

Cost Estimate: ~~\$50,000~~ **25,000**

Products: Customized travel demand model, technical memoranda.

Schedule: On-going activity

4. Regional and Sub-regional Studies

This project provides support for technical analysis for planning studies throughout the year as identified and requested VDOT and/or VDRPT. Work may include but not be limited to technical support in ongoing corridor/subarea studies, and initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. The Commonwealth requires VDOT to review and comment on the technical reports for a variety of local development proposals. Such reports are referred to as "Section 527 reports." Tasks undertaken under this work element could involve staff assisting VDOT in the review and/or analysis of such Section 527 reports. Staff may also assist VDOT in its work on a system-wide evaluation designed to provide information relating to the effectiveness of ongoing and planned projects and programs aimed at addressing the congestion and mobility challenges in Northern Virginia. This evaluation could be examined in terms of level of service, delay, and other mobility criteria, which will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects/programs.

Cost Estimate: \$314,200
 \$238,518 carryover from FY 2013
 ~~\$552,718 total~~ **237,560**

Products: Travel demand modeling and technical analysis in support of Northern Virginia regional and sub-regional planning studies

Schedule: On-going activity

5. Other Tasks to be Defined

Other tasks anticipated but not yet defined.

Cost Estimate: ~~\$34,972~~ **0**

TOTAL VIRGINIA COST ESTIMATE: \$529,200
 \$238,518 carryover from FY 2013
 ~~\$802,690 total~~ **469,600**

D. WMATA

1. Program Development

This project is established to account for DTP staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year. Work activities will involve meeting with WMATA staff to discuss projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and reporting progress on projects throughout the year. In addition, this project will provide staff with resources to attend required meetings at WMATA.

Cost Estimate: ~~\$5,000~~ **2,500**

Schedule: on-going activity

2. Miscellaneous Services

This miscellaneous account is a mechanism established to address requests which are too small or too short-lived to warrant separate work scopes. Past work has included requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG.

Cost Estimate: ~~\$5,000~~ **2,500**

Schedule: on-going activity

4. Other Tasks to be Defined

Other tasks anticipated but not yet defined

Cost Estimate: ~~\$21,695~~ **0**

TOTAL WMATA COST ESTIMATE: ~~\$222,895~~ 196,200

**TPB R12-2014
March 19, 2014**

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION TO APPROVE
CARRYOVER FUNDING FROM FY 2014 TO THE FY 2015
UNIFIED PLANNING WORK PROGRAM (UPWP)**

WHEREAS, the Joint Planning Regulations issued February 14, 2007 by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

WHEREAS, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

WHEREAS, the FY 2014 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 20, 2013; and

WHEREAS, project work statements and budgets for carryover from FY 2014 to FY 2015 have been developed for seven projects in the core program and the Technical Assistance Programs of the District Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA);

NOW, THEREFORE, BE IT RESOLVED THAT: THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves the work statements and budgets for carryover funding from FY 2014 to FY 2015 as described in the attached Memorandum of March 13, 2014 entitled "FY 2014 Carryover Work Statements and Budgets for the FY 2015 UPWP" (pages B-1 through B-20).

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202

MEMORANDUM

March 13, 2014

TO: Transportation Planning Board

FROM: Gerald Miller
Acting Co-Director
Department of Transportation Planning

SUBJECT: FY 2014 Carryover Work Statements and Budgets for the FY 2015 UPWP

Attached are pages excerpted from the draft FY 2015 UPWP with changes and additions shown in **bold** to reflect the carryover funding from FY 2014 to FY 2015. The FY 2015 work elements affected by the FY 2014 carryover funding are as follows:

- 2C. Constrained Long-Range Plan (CLRP): Carryover of \$100,000 to provide resources and additional time to develop how MAP-21 performance measures and targets will be incorporated into the CLRP.
- 2.B. Management, Operations, and Intelligent Transportation Systems (ITS) Planning: Carryover of \$50,000 which will be used to complete an update of the Regional ITS Architecture, providing additional time to coordinate with stakeholders.
- 2.F Regional Bus Planning: Carryover of \$50,000 to provide a forum for discussion of the development of the performance measures and selection of performance targets required under MAP-21, in order to coordinate with relevant providers of public transportation to ensure consistency to the maximum extent practicable.
- 2.H. Freight Planning: Carryover of \$40,000 to provide resources and additional time for new freight planning staff to complete an update of the Regional Freight Plan.
- 4.C. Models Development: Carryover \$50,000, which is available due to less need for consultant support, providing additional resources in FY2015 for consultant-assisted effort to improve the TPB travel model and to conduct focused research on selected technical aspects of travel modeling in order to keep abreast of best practices.
- 5.B. Congestion Monitoring and Analysis: Carryover of \$80,000 to complete the triennial freeway congestion monitoring data collection project, undertaken on a three-year cycle since 1993 and begun in FY2014, providing additional time for data collection and analysis, while still allowing for completion of the project in calendar year 2014.

- 5.C. Travel Surveys and Analysis: Carryover of \$800,000, which will be used to collect household travel survey data in the fall of 2014 rather than in the spring.

6. Technical Assistance

- District of Columbia: Carry over \$19,833 for one project.
- Maryland: Carry over \$270,024 for six projects.
- Virginia: Carry over \$333,100 for three projects.
- WMATA: Carry over \$26,700 for a project.

The total FY 2014 funding to be carried over is \$1,819,657 in Basic Program plus Technical Assistance.

The final version of the FY 2015 UPWP will combine the carryover funding and new funding into one work program for submission to FTA and FHWA. The proposed budget levels for these carryover projects are shown in Table A.

Deletions are shown in ~~strikeout~~ and additions in **bold**.

PROJECT CARRYOVER FROM FY2014 TO FY2015 BY FUNDING SOURCE

WORK ACTIVITY	FY2014 FUNDS	FTA/STATE/ LOCAL	FHWA/STATE/ LOCAL
2. COORDINATION AND PROGRAMS			
C. Constrained Long-Range Plan (CLRP)	100,000	23,945	76,055
B. Management, Operations, and ITS Planning	50,000	11,973	38,027
F. Regional Bus Planning:	50,000	11,973	38,027
H. Freight Planning	40,000	9,578	30,422
4. DEVELOPMENT OF NETWORKS AND MODELS			
C. Models Development	50,000	11,973	38,027
5. TRAVEL MONITORING			
B. Congestion Monitoring and Analysis	80,000	19,156	60,844
C. TRAVEL SURVEYS & ANALYSIS	800,000	191,561	608,439
Core Program Total	1,170,000	280,157	889,843
6. TECHNICAL ASSISTANCE			
A. District of Columbia	19,833	4,948	14,885
B. Maryland	270,024	67,365	202,659
C. Virginia	333,100	83,101	249,999
D. WMATA	26,700	26,700	
Subtotal	649,657	182,114	467,543
Grand Total	1,819,657	462,271	1,357,386
TOTAL	1,819,657	462,271	1,357,386

CARRYOVER WORK STATEMENTS AND FUNDING FOR THE FY 2015 UPWP

1.C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

The financially Constrained Long-Range Plan (CLRP) includes all “regionally significant” highway, transit and High-Occupancy Vehicle (HOV), bicycle and pedestrian projects, and studies that the TPB realistically anticipates can be funded and implemented by 2040. Some of these projects are scheduled for completion in the next few years; others will be completed much later. Each year the plan is updated to include new projects and programs, and analyzed to ensure that it meets federal requirements relating to air quality and funding.

Under SAFETEA-LU, the last four-year update of the CLRP was approved by the TPB on November 17, 2010 and included an expanded financial analysis of transportation revenues expected to be available through 2040. As required by MAP-21, the next four year update of the CLRP will be in 2014. The 2014 CLRP will address the new MAP-21 long-range transportation plan requirement to incorporate a performance-based approach to transportation decision-making to support seven national goals. The CLRP is updated annually with amendments that include new projects or adjust the phasing or other aspects of some of the projects or actions in the plan, or change specific projects as new information on them becomes available.

New Performance-Based Approach

MAP-21 calls for MPOs and state DOTs to establish and use a performance-based approach to transportation decision making to support seven national goals. The USDOT must establish performance measures related to seven areas by April 1, 2014. The states then have a year (April 1, 2015) to establish performance targets in support of those measures; and the MPO subsequently has 180 days (October 1, 2015) to establish performance targets coordinated with those of the states and public transportation providers. After these targets are set, the CLRP and TIP are required to include a description of the performance measures and targets used in assessing the performance report evaluating the condition and performance of the transportation system with respect to the established targets. The TIP is also required to include a description of the anticipated effect of the TIP toward achieving the performance targets set in the CLRP.

Once the USDOT has established performance measures for the seven areas, TPB staff will coordinate with DDOT, MDOT and VDOT staff on their setting of the state performance targets in support of the measures. States may set different targets for urbanized and rural areas. TPB staff will coordinate with the DOT efforts to ensure consistent state measures that are relevant for the TPB planning area. TPB staff will also coordinate with the DOT staffs to develop the specific performance targets in relation to the applicable performance measures for the TPB planning area. Similarly, TPB staff will coordinate with WMATA and other public transportation providers on their setting of performance targets for USDOT established performance measures.

The Transportation Vision, which was adopted by the TPB in October 1998, contains a vision statement, long-range goals, objectives, and strategies to guide transportation planning, decision-making and implementation in the region. It addresses the planning

factors in MAP-21. The Vision is the TPB Policy Element of the CLRP. The CLRP website (www.mwco.org/clrp) describes how the plan performs related to MAP-21 planning factors as reflected by the goals of the TPB Vision. The goals from COG's Region Forward efforts are reflected in the TPB Vision, which includes a broader set of policy goals for transportation than Region Forward.

The TPB's Regional Transportation Priorities Plan (RTPP), adopted by the TPB in January 2014, identifies near-term, on-going and long term strategies that address the most pressing challenges that the region faces in meeting the TPB's regional Vision goals. The challenges and high-pay off strategies with wide regional support identified in RTPP can inform the identification of new projects and programs for inclusion in future updates to the CLRP.

The CLRP will be documented in several ways and public materials will be provided during plan development and after plan approval. The CLRP website will be utilized to document the plan update by describing the development process related planning activities, major projects, performance of the plan and how the public can get involved. The website also makes CLRP-related process and technical documentation readily accessible. The TPB will continue to make the plan information more accessible and visual. Projects in the plan will be accessible through an online database that the public can easily search. Projects will be mapped using GIS where possible and displayed along with project descriptions and in an interactive map. These maps will also be used in printed media, such as the CLRP and TIP summary brochure. The TPB will also continue to improve the quality of public materials about the plan during its development and after approval so that the materials are more useful to a wide variety of audiences, using less technical jargon and more "public friendly" language.

The 2014 CLRP

In November 2013, the TPB issued a "Call for Projects" document requesting projects, programs or strategies for inclusion in the 2014 CLRP. Project updates were due in December 2013. Materials describing the draft 2014 CLRP were developed in the spring of 2014, including major project descriptions and maps.

In September 2014, the 2014 CLRP will be released for a final public comment period along with the accompanying air quality conformity analysis. The TPB is scheduled to adopt the 2014 CLRP in October 2014.

Subsequent documentation of the CLRP will include an analysis of how the plan performs in regard to transit and auto trips made, vehicle miles of travel, lane miles of congestion and accessibility to jobs. The performance analysis is done after every CLRP update and is documented on the CLRP website. The analysis will be used to describe how the CLRP performs based on regional goals and MAP-21 planning factors and will also examine connectivity between the Regional Activity Centers. There will be two opportunities for public comment during the development of the 2014 CLRP.

The 2015 CLRP

In October 2014, the TPB will issue its "Call for Projects" document for the 2015 CLRP. The "Call for Projects" document will request new projects programs and strategies, and updated information to be included in the 2015 CLRP. Materials describing the draft 2015

CLRP will be developed in the spring of 2015, including maps, major project descriptions, and analysis from the previous year's CLRP. The development of the 2015 CLRP will include two opportunities for the public to comment on the Plan. The 2015 CLRP will be prepared and reviewed between January and June 2015 with approval scheduled for July 2015.

A description of the performance measures and targets under development or to be used in assessing the performance of the transportation system will be drafted. Once the targets are developed in coordination with the State DOT's, the CLRP will include a system performance report evaluating the condition and performance of the transportation system with respect to the established targets. The TIP also will include a description of the anticipated effect of the TIP toward achieving the performance targets set in the CLRP. After the TPB approves the 2014 CLRP, anticipated for October 2014, a performance analysis of the CLRP to 2040 will be conducted utilizing the established performance measures. The 2014 CLRP will be also be evaluated for disproportionately high and adverse effects on low-income and minority population groups.

Environmental Consultation

During the development of the CLRP the TPB will continue to consult with the federal, state and local agencies responsible for natural resources, wildlife, land management environmental protection, conservation and historic preservation as necessary in the District of Columbia, Maryland and Virginia on potential environmental mitigation activities. To aid in the integration of projects for the CLRP with natural and historic resources, maps of transportation and historic resources will be updated with the latest available GIS data from District of Columbia and the States and forwarded to federal, state and local agencies for comments.

Climate Change Adaption

The environmental consultation activities described above also provide an opportunity to engage environmental and transportation agencies on the topic of climate change adaptation. Local, state and national practices will be monitored for potential applicability to the region.

Oversight:	Technical Committee
Cost Estimate:	\$636,100 \$100,000 carryover from FY 2014 \$736,100 total
Products:	Documentation of the 2014 CLRP, Call for Projects for the 2015 CLRP, draft 2014 CLRP and documentation
Schedule:	July 2015

2. B. MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PLANNING

Regional transportation systems management and operations are vital considerations for metropolitan transportation planning, and have been emphasized in MAP-21. Under this work task, TPB will address these as well as coordination and collaborative enhancement of transportation technology and operations in the region, with a key focus on non-recurring congestion due to incidents or other day-to-day factors. The MOITS program includes planning activities to support the following major topics:

- MAP-21: Address MAP-21 requirements related to MOITS, including:
 - Compile and analyze data to support the “system reliability” National Goal for Performance Management
 - Coordinate with member states on system reliability targets
- ITS Data: The collection/compilation, processing, warehousing, and sharing of transportation systems usage and condition data from Intelligent Transportation Systems (ITS) sources
- Regional Transportation Management: Particularly in conjunction with the Metropolitan Area Transportation Operations Coordination (MATOC) Program (see also Task 2.I.); support the MOITS Technical Subcommittee in its long-range planning advisory role for the MATOC Program
- Multi-modal Coordination: Examination of traffic and transit management interactions in daily operations
- Coordination of day-to-day transportation operations planning with emergency preparedness in conjunction with the COG Regional Emergency Support Function 1 – Emergency Transportation Committee (see also Task 2.C.)
- Traveler Information: Real-time traveler information made available to the public, including addressing federal Section 1201 requirements on making real-time incident data available
- Congestion Management Process: Technology and operations strategies to address non-recurring congestion aspects of the regional Congestion Management Process (see also Task 2.A.)
- Maintenance and Construction Coordination: Regional sharing of available maintenance and construction information for coordination purposes, in conjunction with MATOC's regional construction coordination system
- Intelligent Transportation Systems (ITS) Architecture: ~~Maintain~~ **Update the regional ITS architecture in accordance with federal law and regulations**
- Traffic Signals: Assist member agencies in the exchange and coordination of interjurisdictional traffic signal operations information and activities; examine traffic signal systems and operations from the regional perspective, including in conjunction with emergency planning needs

- Climate Change Adaptation: Monitor local and national practices regarding transportation operational procedures to adapt to climate change effects. Coordinate with COG Regional Climate Adaption Plan activities to identify transportation operations-related climate change adaptation activities for the region's transportation agencies to consider
- MOITS Strategies: Analysis of strategies designed to reduce congestion, reduce emissions, and/or better utilize the existing transportation system.
- Member Agency Activities: Work as needed with the MOITS activities of the state and D.C. departments of transportation, the Washington Metropolitan Area Transit Authority, and other member agencies
- Coordinate with supra-regional management and operations activities of the Federal Highway Administration, the I-95 Corridor Coalition, and other relevant stakeholders
- Provide staff support to the MOITS Policy Task Force, MOITS Technical Subcommittee, MOITS Regional ITS Architecture Subcommittee, and MOITS Traffic Signals Subcommittee.

Oversight: Management, Operations, and Intelligent Transportation Systems (MOITS) Technical Subcommittee

Cost Estimate: \$350,500
\$50,000 carryover from FY 2014
\$400,500 total

Products: Agendas, minutes, summaries, outreach materials as needed; white paper(s) on technical issues as needed; ~~revised~~ **updated** regional ITS architecture; MOITS input to the CLRP as necessary; review and advice to MOITS planning activities around the region; documentation as necessary supporting MAP-21 requirements of MOITS planning

Schedule: Monthly

2.F. REGIONAL BUS PLANNING

This work activity will provide support to the Regional Bus Subcommittee for the coordination of bus planning throughout the Washington region, and for incorporating regional bus plans into the CLRP and TIP. The Regional Bus Subcommittee is a forum for local and commuter bus, rail transit, and commuter rail operators and other agencies involved in bus operation and connecting transit services. The Subcommittee focuses on bus planning as well as regional transit issues, such as data sharing and technical projects.

The major topics to be addressed in FY 2015 include the following:

- Evaluate federal rulemaking for the performance provisions of MAP-21, specifically transit safety and transit state of good repair, including changes in the metropolitan planning process in regard to performance-based project programming and planning.
- **Provide a forum for discussion of the development of the performance measures and selection of performance targets required under MAP-21, in order to coordinate with relevant providers of public transportation to ensure consistency to the maximum extent practicable.**
- Development and publication of useful operations, customer, and financial data on regional bus services for TPB and public utilization, including a priority list of regional projects to improve bus transit services.
- Coordination and evaluation of CLRP and TIP proposals and amendments with regard to bus transit service plan implementation and capital projects for bus facilities and runningway improvements.
- Provide technical advice and input regarding regional transportation and land use coordination, including the development of transit assumptions for TPB planning studies.
- Facilitation of technology transfer and information sharing as it relates to regional, state and local bus transit services, including for Bus Rapid Transit (BRT) projects, customer information, and other common issues.
- Coordination with other regional committees regarding bus transit participation in planning and training activities, including but not limited to the Regional Emergency Support Function (RESF) #1 at COG, and the MATOC Transit Task Force.
- Coordination with the TPB Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee regarding integrated planning for bus services and street operations.
- Coordination with the TPB Access for All (AFA) Committee to enhance regional mobility for all populations.

Oversight:	Regional Bus Subcommittee
Cost Estimate:	\$160,000 \$50,000 carryover from FY 2014 \$210,500 total
Products:	Data compilation, reports on technical issues, and outreach materials
Schedule:	Monthly

2.H. FREIGHT PLANNING

Under this work task, TPB will provide opportunities for consideration, coordination, and collaborative enhancement of planning for freight movement, safety, facilities, and activities in the region. An updated Regional Freight Plan was completed in FY2010, and provides guidance for continued regional planning activities. Major topics to be addressed include the following:

- Support the Regional Freight Subcommittee.
- **Complete** a new Regional Freight Plan.
- Maintain the Regional Freight Plan and supporting information on the TPB Web site for member agency and public access.
- Ensure consideration of freight planning issues in overall metropolitan transportation planning, including:
 - Work proactively with the private sector for consideration of private sector freight issues. Identify topics of interest to private sector, often competing trucking and freight stakeholders.
 - Continue following up on recommendations from the Regional Freight Forum held in FY2011.
 - Advise the TPB and other committees in general on regional freight planning considerations for overall metropolitan transportation planning.
 - Coordinate with federal, state, and local freight planning activities.
- Address MAP-21 requirements related to freight planning, including:
 - Analyze available freight movement data for the region including FHWA Freight Analysis Framework total tonnage and total value data for truck, rail, air cargo, and maritime movements in our region; this data may inform freight performance measures.
 - Monitor federal rulemaking on freight performance measures.
 - Coordinate with member states on the establishment of freight targets.
- Complete a set of "Freight Around the Region" outreach materials focusing on individual jurisdictions' freight activities and their links to regional activities.
- Coordinate with TPB travel monitoring and forecasting activities on freight considerations.
- Examine truck safety issues.
- Develop ongoing freight component input to the Constrained Long Range Plan (CLRP).
- Keep abreast of regional, state, and national freight planning issues.
- Undertake data compilation and analysis on freight movement and freight facilities in the region.
- Undertake freight stakeholder outreach with representatives of the freight community, including carriers, shippers, and other stakeholders, to gain their input

on regional freight movement, safety and other issues and to gauge their interest in state and MPO planning and programming processes.

Oversight:	TPB Freight Subcommittee
Cost Estimate:	\$154,500 \$40,000 carryover from FY 2014 \$194,500 total
Products:	New Regional Freight Plan; data compilation and outreach materials as needed; white paper(s) on technical issues as needed; structured interviews and summarized results; documentation as necessary supporting MAP-21 requirements of freight planning
Schedule:	Bimonthly

4.C. MODELS DEVELOPMENT

The Models Development activity functions to maintain and advance the TPB's travel forecasting methods and practices, which are critical to ongoing transportation planning work. Models development activities are formulated around the areas of data collection, short- and long-term models development, research, and maintenance. During FY 2015, staff will continue to support the application and refinement of the currently adopted Version 2.3.52 travel model to serve regional and project planning needs. Staff will also maintain a consultant-assisted effort to evaluate existing forecasting practices and to provide advice on longer-term improvements. All staff-proposed improvements to the regional travel model will be implemented in consultation with the TPB Travel Forecasting Subcommittee (TFS).

The following work activities are proposed:

- Support the application of the Version 2.3.52 travel model for air quality planning work and other planning studies conducted by TPB staff. This will include the update of travel modeling inputs as necessary (external trips and other exogenous trip tables), investigating technical problems that might arise during the course of application, and documenting refinements to the model. Staff will also provide support for local project planning work on an "as needed" basis. Some of this support will be administered through the TPB's technical service accounts.
- **Continue the consultant-assisted effort to improve the TPB travel model and to conduct focused research on selected technical aspects of travel modeling in order to keep abreast of best practices.**
- Staff will work with local transportation agencies in formulating ways in which the regional travel model might be used to provide performance-based measures as per the new surface transportation authorization legislation (MAP-21).

- Continue the investigation of refinements to the Version 2.3.52 model, drawing from recommendations compiled from past consultant-generated reviews of the regional travel model. These refinements will focus most immediately on activities that were initiated during FY 2014, including an enhanced traffic assignment process, an improved mode choice model application program, and the use of the Public Transport (PT) transit network program. Staff will also continue to leverage available technology to minimize model computation times as much as possible.
- Continue with sensitivity testing with the Version 2.3.52 travel model, in consultation with the TFS. The testing may point to a need to modify the adopted travel model.
- Continue the analysis of geographically focused household travel survey data that TPB staff has collected during FY 2012, FY 2013 and FY 2014. This will include a comparison of surveyed data against modeled data as a way of assessing model performance and reasonability.
- Keep abreast of new developments in travel demand forecasting, both short-term developments (such as for trip-based, four-step models) and long-term developments (such as ABMs and airport choice and ground access mode choice models). TPB staff will also continue involvement with the Transportation Research Board (TRB), the Travel Modeling Improvement Program (TMIP) and Institute of Transportation Engineers (ITE).
- Staff will keep abreast of hardware and software needs and opportunities, including the potential use of “cloud computing” and the use of versioning software as an efficient way of tracking model code as it evolves with model refinements over time.
- Provide staff support for the TPB Travel Forecasting Subcommittee which is the forum charged with overseeing technical practices and improvements to the TPB travel forecasting process. This will include organizing meetings, preparing regular presentations, and coordinating with internal and external meeting participants on presentation items.
- Respond to model-related data requests from local partner agencies and their consultants.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$1,103,400 \$50,000 carryover from FY 2014 \$1,153,400 total
Products:	Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process, where applicable.
Schedule:	June 2015

5.B. CONGESTION MONITORING AND ANALYSIS

Congestion Monitoring supplies data for the Congestion Management Process (CMP - Item 2.A.) and Models Development (Item 4.C.). The program monitors congestion on both the freeway and the arterial highway systems, to understand both recurring and non-recurring congestion. Data collection methods include a combination of aerial surveys, field data collection, and/or data procured from private sources. Examples of emerging technologies include probe-based data and Bluetooth-based data. Activities will include:

- **Analyze Complete data collection, analyze**, and publish the results of the triennial aerial survey of congestion on the region's freeway system, ~~based upon the data-collection that took place in spring 2014~~; coordinate this information with other congestion data sources.
- Compile, review, and format transportation systems condition information from sources including:
 - The speed data archive from the I-95 Corridor Coalition/INRIX, Inc. Vehicle Probe Project (VPP) and associated VPP Suite developed by the University of Maryland Center for Advanced Transportation Technology;
 - The Regional Integrated Transportation Information System (RITIS) of the Metropolitan Area Transportation Operations Coordination (MATOC) Program;
 - The FHWA's National Performance Management Research Data Set (NPMRDS)
 - Private sector sources as available.
- Examine potential new sources of archived operations data.
- Provide data to the products of the Congestion Management Process (see also Task 2.A.)

Oversight: MOITS Technical Subcommittee

Estimated Cost: \$360,500
\$80,000 carryover from FY 2014
\$440,500 total

Product: Final report of the ~~spring~~ 2014 aerial survey of congestion on the region's freeways; transportation systems monitoring data sets and analysis reports from archives, provided for the products of the Congestion Management Process (2.A.) and other regional transportation planning activities; documentation as necessary supporting MAP-21 requirements of congestion monitoring and analysis

Schedule: June 2015

5.C. TRAVEL SURVEYS AND ANALYSIS

In FY 2012-2014, the 2007/2008 Regional Household Travel Survey data was supplemented with collection of household travel survey data in 14 focused geographic subareas of the region. This additional household travel survey data collection was in response to the need expressed by local jurisdiction users of the household travel survey to have additional household samples in smaller geographic subareas to analyze specific aspects of daily travel behavior in these smaller geographic areas. In FY 2015, staff will continue to support users of TPB household travel survey data, update user documentation, provide technical assistance to the users of these survey data and begin planning for the next region-wide household travel survey.

The following work activities are proposed for FY 2015:

- Provide data, documentation, and technical support to users of 2007/2008 Regional Household Travel Survey and 2011-2014 Geographically-Focused Household Travel Surveys. Update user documentation as required.
- **Collect household travel survey data for 2,400 households in six focused geographic subareas of the region for more intensive analysis of specific growth and transportation issues. Examples of focused geographic subarea could include Metrorail station areas of a specific type, highway corridors with recent or planned major improvements, proposed light rail study area, or regional activity centers of with specific characteristics. Proposed focused geographic subareas for 2013 include: (1) Federal Center/Southwest/Navy Yard in DC (2) H Street Corridor NE in DC (3) Silver Spring in Montgomery County (4) US 1/Green Line in Prince George's County (5) City of Fairfax and (6) City of Manassas. The proposed geographic subareas will be reviewed and subject to refinement by the TPB Technical Committee and local jurisdiction planning staff.**
- **Collect household travel survey data for 2,400 households in six focused geographic subareas of the region for more intensive analysis of specific growth and transportation issues. Examples of focused geographic subarea could include Metrorail station areas of a specific type, highway corridors with recent or planned major improvements, proposed light rail study area, or regional activity centers of with specific characteristics. Proposed focused geographic subareas for FY 2014 include: (1) St Elizabeths/Anacostia (2) Fort Totten (3) Greenbelt (4) Kentlands (5) Tysons (6) Leesburg. The proposed geographic subareas will be reviewed and subject to refinement by the TPB Technical Committee and local jurisdiction planning staff.**
- Complete the processing and analysis of data collected in the 2014 Geographically-Focused Household Travel Surveys to support analysis of regional growth and transportation issues of topical interest to the members of the TPB. Prepare information reports on various aspects of daily household and vehicle travel in the region.

- Update vehicle flows and commuter rail ridership across the external cordon for the TPB modeled area with data from third party vehicle trip data providers and commuter rail operators.
- Begin planning and seek funding for a large sample methodologically enhanced activity-based region-wide household travel survey to begin in FY 2016-FY2017. The pre-test and data collection for the methodologically enhanced activity-based region-wide household survey will not begin until funding for the full survey can be identified. It is currently estimated that between \$2.1 and \$2.6 million in funding will be needed to collect survey data from approximately 10,000 households in the TPB modeled area.

Oversight: Travel Forecasting Subcommittee

Estimated Cost: \$727,500
\$800,000 carryover from FY 2014
\$1,527,500 total

Product: Household Travel Survey Data Collection and Processing, Household Travel Survey Analyses, Information Reports and Technical Memorandum, Maintenance of Travel Survey Data and Documentation, Planning for Region-Wide Household Survey

Schedule: June 2015

6. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

4. Other Tasks To Be Defined

Cost Estimate: \$115,470
19,833 carryover from FY 2014
\$135,303 total

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: \$360,470
19,833 carryover from FY 2014
\$380,303 total

B. MARYLAND

1. Program Development Management

This work task will account for DTP staff time associated with the administration of this Technical Assistance work program throughout the year. Work activities would involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work task also includes staff time needed for the development of the annual planning work program.

Cost Estimate: \$15,000
10,000 carryover from FY 2014
\$25,000 total

Schedule: On-going activity

2. Project Planning Studies

This work task will account for DTP staff time associated with the development of scopes of work, interagency coordination, and technical analyses associated with travel demand modeling, evaluation of alternatives and coordination with other governmental entities and consultants. It is anticipated that technical work will continue on the MD 586 and MD 97 BRT transit corridors and potentially start work on the I-495 multimodal corridor. This work element also anticipates technical work on new planning studies administered by MDOT, MD SHA and other agencies.

Cost Estimate: \$100,000
80,000 carryover from FY 2014
\$180,000 total

Schedule: On-going activity

3. Feasibility/Special Studies

This work task will provide funding to support technical support on feasibility/special studies as requested by MDOT, SHA and other agencies. Work may include but not limited to technical support in ongoing corridor/subarea studies, initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities and scenario analyses. Project authorizations may occur throughout the fiscal year as priorities dictate to address transportation planning initiatives and strategic goals of MDOT, SHA and other agencies.

Cost Estimate: \$200,000

Schedule: On-going activity

4. Transportation Performance Measures

This work task will provide funding to support technical support on assessing the performance of the transportation network by assessing the congestion levels of freeway and arterial segments in accordance with MAP-21 mandates. In addition, accessibility and connectivity issues at a subarea level of analysis may be assessed as well as network bottlenecks. Finally, operational assessments of the area network may be conducted in support of planning studies.

Cost Estimate: \$100,000
50,000 carryover from FY 2014
\$150,000 total

Schedule: On-going activity

5. Miscellaneous Technical Support

This work task will support technical work associated with several pursuits of MDOT and MD SHA that cannot fit into the previous work tasks. It is envisioned that Transit Oriented Development (TOD) studies, statewide model support, GIS Applications, scenario studies, SHRP2 Capacity and Reliability Product Implementation assessments, and possibly freight/special generator studies may be conducted as part of this work task.

Cost Estimate: \$65,000
80,000 carryover from FY 2014
\$145,000 total

Schedule: On-going activity

6. Transportation / Land Use Connections Program

The Transportation / Land Use Connections (TLC) program is an effort to provide technical assistance to local governments in the Washington region in order to facilitate integrating land use and transportation planning at the community level. Begun as a 6 month regional pilot program in January 2007, the project was very well received. It was not only continued in subsequent years, but Maryland supplemented the regional effort with additional funds.

Cost Estimate: \$160,000
Product: Grant awards, technical reports from contractors
Schedule: June 2014

7. Human Services Transportation Study Follow-on and Support

In FY2013 a human service transportation coordination study identified alternate service delivery models and funding mechanisms for the regional MetroAccess paratransit service, with a focus on Suburban Maryland. The study identified potential human service transportation coordination models and recommended an action plan for a pilot project with non-profit agencies serving people with developmental disabilities in Suburban Maryland. The study was jointly funded under the FY2013 UPWP Maryland and WMATA Technical Assistance work elements and was facilitated by the TPB staff. In FY2014, TPB staff will provide follow-up to the study, including additional work with MDOT, MTA, non-profit agencies, and private transportation providers to assist with implementation of the action plan. Additional work could include research, data collection, and stakeholder meetings to advance the action plan, and assessing existing MetroAccess alternatives in Suburban Maryland to support high quality and cost efficient transportation for people with disabilities.

Cost Estimate: \$40,000 carryover from FY 2014

Schedule: June 2014

8. Other Tasks yet to be defined

Other tasks are anticipated but not yet defined. This project is established to account for TPB staff time spent in responding to requests for technical assistance by MDOT, SHA, other modal agencies and jurisdictions whose scope of work or characteristics do not conform to the other work tasks of the Maryland Technical Assistance Program. Work under this project will be performed upon authorization by MDOT, SHA and/or other modal agencies and jurisdictions.

Cost Estimate: \$6,043
10,024 carryover from FY 2014
\$16,067 total

TOTAL MARYLAND COST ESTIMATE: \$646,043
\$270,024 carryover from FY 2014
\$916,067 total

C. VIRGINIA

1. Data/Documentation Processing

This work element accounts for DTP staff time associated with the administration of this Technical Assistance work program throughout the year. Work activities would involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work task also includes staff time to process requests for data/documents from Northern Virginia as advised by VDOT throughout the year.

Cost Estimate: \$15,000
\$8,000 carryover from FY 2014
\$23,000 total

Product: Data, documentation, scopes of work, progress reports

2. Travel Monitoring and Survey

This program will fund the ongoing continuous travel monitoring program for major commuting routes in Northern Virginia, with a goal of sampling each route on a 2-3 year cycle. Collected data and analysis may include volume and occupancy data, travel time data, and other information. The program will also include collection of bicycle and pedestrian data at various locations throughout Northern Virginia, as identified by VDOT.

Cost Estimate: \$200,000

Products: Program management plan, data and analysis, technical memorandum

Schedule: On-going activity

3. Travel Demand Modeling

This project is designed to assist VDOT in the development of, and the evaluation of results from the regional transportation travel demand model, as adapted for its use by VDOT. Specific tasks undertaken will be identified throughout the year and are likely to include: developing forecasts and/or extracting specific information from the regional model forecasts for specific scenarios/options evolving out of ongoing studies and/or project planning efforts; and assistance with documentation, training and customization of the regional travel demand forecasting model for the Northern Virginia sub-area per VDOT's requirements.

Cost Estimate: \$109,195
59,972 carryover from FY14
\$169,167 total

Products: Model output, technical memoranda.

Schedule: On-going activity

4. Regional and Sub-regional Studies

This project provides support for technical analysis for planning studies throughout the year as identified and requested VDOT and/or VDRPT. Work may include but not be limited to technical support in ongoing corridor/subarea studies, and initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. Tasks undertaken under this work element may involve staff assisting VDOT in the review and/or analysis of Section 527 reports. Staff may also assist VDOT in its work on a system-wide evaluation designed to provide information relating to the effectiveness of ongoing and planned projects and programs aimed at addressing the congestion and mobility challenges in Northern Virginia.

Cost Estimate: \$240,000
256,119 carryover from FY 2014
\$505,119 total

Products: Travel demand modeling and technical analysis in support of Northern Virginia regional and sub-regional planning studies

Schedule: On-going activity

5. Other Tasks to be Defined

Other tasks anticipated but not yet defined.

TOTAL VIRGINIA COST ESTIMATE: \$564,195
333,091 carryover from FY 2014

\$897,286 total

D. WMATA

4. Other Tasks to be Defined

Other tasks anticipated but not yet defined

Cost Estimate: **\$26,700**

TOTAL WMATA COST ESTIMATE: \$222,895
 26,700 carryover from FY 2014
 \$249,595 total