

# National Capital Region Transportation Planning Board

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## Technical Committee Item 9

### MEMORANDUM

December 26, 2013

**TO:** Technical Committee

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

**SUBJECT:** Preliminary Budget and Outline for FY 2015 Unified Planning Work Program (UPWP)

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A preliminary FY 2015 budget estimate for the UPWP, the work activity funding changes compared to FY 2014 levels, and an outline of the proposed work activities for FY 2015 are attached.

The budget for the FY 2015 UPWP basic work program is based upon MPO planning funding allocations provided by the three DOTs of FTA Section 5303 and FHWA Section 112 PL funding that is determined by the FY 2014 USDOT budget. Due to the current uncertainty regarding the final FY 2014 USDOT authorization and budget levels, we assume that the FY 2015 funding allocations to be provided by the DOTs will be at the current FY 2014 levels. The estimated funding is shown on the next page. In addition, the budget estimate assumes the level of unobligated funds from FY 2013 will be \$1,075,210, which is the same as from FY 2012.

The preliminary estimated total budget excluding carryover funds is \$12,710,679, which is the same as the current total FY 2014 budget as amended November 20, 2013. The **basic work program budget is \$10,917,093** without carryover funds, which is the same as the corresponding current FY 2014 budget level.

The **technical assistance program budget is \$1,793,586**, unchanged from the current FY 2014 budget level. Technical assistance program budgets are based upon percentages of the estimated FY 2015 funding allocations, which are unchanged from FY 2014.

<b>ESTIMATED PRELIMINARY FUNDING FOR FY 2015 UPWP</b>				<b>DRAFT</b>	<b>12/26/13</b>
	<b>FTA</b>	<b>FHWA</b>	<b>New FY 2015</b>	<b>Current FY 2014</b>	
<b>DDOT</b>					
New 2015	521,703	2,148,445	2,670,148		2,670,148
Unob.2013	28,123	116,540	144,663		144,663
<b>MDOT</b>					
New 2015	1,253,735	3,531,767	4,785,502		4,785,502
Unob.2013	152,328	374,130	526,458		526,458
<b>VDOT</b>					
New 2015	1,010,540	3,168,679	4,179,219		4,179,219
Unob.2013	72,000	332,689	404,689		404,689
TOTAL New 2015	2,785,978	8,848,891	11,634,869		11,634,869
TOTAL Unob.2013	252,451	823,359	1,075,810		1,075,810
<b>FY 2015 Grand Total</b>			<b>\$12,710,679</b>		<b>\$12,710,679</b>

**Technical Assistance Totals:**

- 1) For DC, MD, VA: 13.5% of total new allocation (\$360,470 + \$646,043 + \$564,195 = \$1,570,708)
- 2) For WMATA: 8% of total new FTA funding (\$2,785,978) = \$222,878
- 3) Total Technical Assistance is **\$1,793,586** or **15.4** percent of total new funding of \$11,634,869 for FY 2015.

## TPB FY 2015 WORK PROGRAM FUNDING CHANGES FROM FY 2014

Work Activity	FY 2015	FY 2014	FY15-FY14	% Change
<b>1. PLAN SUPPORT</b>				
A. Unified Planning Work Program (UPWP)	72,800	72,800	0	0
B. Transp Improvement Program (TIP)	247,800	247,800	0	0
C. Constrained Long-Range Plan	636,100	606,100	30,000	5
D. Financial Plan	64,900	94,900	-30,000	-32
E. Public Participation	434,700	434,700	0	0
F. Private Enterprise Participation	18,800	18,800	0	0
G. Annual Report	82,500	82,500	0	0
H. Transportation/Land Use Connection Progr	430,300	430,300	0	0
I. DTP Management	482,800	482,800	0	0
Subtotal	2,470,700	2,470,700	0	0
<b>2. COORDINATION and PROGRAMS</b>				
A. Congestion Management Process (CMP)	211,000	211,000	0	0
B. Management, Operations, and ITS Planning	350,500	350,500	0	0
C. Emergency Preparedness Planning	77,600	77,600	0	0
D. Transportation Safety Planning	128,800	128,800	0	0
E. Bicycle and Pedestrian Planning	125,000	125,000	0	0
F. Regional Bus Planning	160,000	160,000	0	0
G. Human Service Transportation Coordination	141,200	141,200	0	0
H. Freight Planning	154,500	154,500	0	0
I. MATOC Program Planning & Support	123,600	123,600	0	0
Subtotal	1,472,200	1,472,200	0	0
<b>3. FORECASTING APPLICATIONS</b>				
A. Air Quality Conformity	584,600	584,600	0	0
B. Mobile Emissions Analysis	707,200	707,200	0	0
C. Regional Studies	531,800	531,800	0	0
D. Coord Coop Forecasting & Transp Planning	831,000	831,000	0	0
Subtotal	2,654,600	2,654,600	0	0
<b>4. DEVELOPMENT OF NETWORKS/MODELS</b>				
A. Network Development	792,800	792,800	0	0
B. GIS Technical Support	565,300	565,300	0	0
C. Models Development	1,103,400	1,103,400	0	0
D. Software Support	184,300	184,300	0	0
Subtotal	2,645,800	2,645,800	0	0
<b>5. TRAVEL MONITORING</b>				
A. Cordon Counts	258,400	258,400	0	0
B. Congestion Monitoring and Analysis	360,500	360,500	0	0
C. Travel Surveys and Analysis			0	
Household Travel Survey	727,500	727,500	0	0
D. Regional Trans Data Clearinghouse	327,400	327,400	0	0
Subtotal	1,673,800	1,673,800	0	0
<b>Core Program Total (I to V)</b>	<b>10,917,100</b>	<b>10,917,100</b>	0	0
<b>6. TECHNICAL ASSISTANCE</b>				
A. District of Columbia	360,470	360,470	0	
B. Maryland	646,043	646,043	0	
C. Virginia	564,195	564,195	0	
D. WMATA	222,878	222,878	0	
Subtotal	1,793,586	1,793,586	0	
<b>Total Program</b>	<b>12,710,686</b>	<b>12,710,686</b>	0	0
<b>GRAND TOTAL</b>	<b>12,710,686</b>	<b>12,710,686</b>	0	

## PROPOSED WORK ACTIVITIES FOR FY 2015

(July 1, 2014 to June 30, 2015)

### 1. PLAN SUPPORT

#### A. UNIFIED PLANNING WORK PROGRAM (\$72,800)

- UPWP will be developed to comply with the anticipated metropolitan planning requirements in the Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) Act.
- UPWP will describe work elements and integration of program activities and responsibilities for all aspects of the work program.
- UPWP will discuss planning priorities and describe the transportation planning and related air quality planning activities over next 1-2 years.

**Oversight:** TPB Technical Committee

**Products:** UPWP for FY 2016, amendments to FY 2015 UPWP, monthly progress reports and state invoice information, federal grant materials

**Schedule:** Draft: January 2015 Final: March 2015

#### B. TRANSPORTATION IMPROVEMENT PROGRAM (TIP) (\$247,800)

##### **New Performance Management**

- MAP-21 calls for MPOs, states, and public transportation providers 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 nine areas by April 1, 2015. The states then have a year (April 1, 2016) to establish performance targets in support of those measures; and the MPO subsequently has 180 days (October 1, 2016) 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 of the transportation system. The CLRP will also have to include a system 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 nine 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 2015 CLRP and new TIP will include a description of the performance measures and targets under development or to be used in assessing the performance of the transportation system. Once the targets are developed in coordination with the State DOTs and public transportation providers, the CLRP will also 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.

### **Ongoing Activities and Schedule**

- The TIP will be updated every two years and amended each year. It is anticipated the FY 2015-2020 TIP and 2014 CLRP will be approved in September 2014.
- Drafts of the 2015 CLRP and FY 2015-2020 TIP amendment will be prepared and reviewed between January and June 2015 with approval scheduled for July 2015.
- Documentation of the current TIP will be enhanced with additional analysis as a part of the CLRP/TIP brochure and the CLRP web site.
- Public access to TIP project data has been improved with an online searchable database, which will continue to be updated with the last information. .
- The geographic information system linked database of TIP and CLRP project data and air quality conformity information will be improved to facilitate updating and reporting.
- Annual certification of compliance with regulations on providing transit services to persons with disabilities will be prepared.
- An annual listing of projects for which federal funds have been obligated in the preceding year will be prepared.
- Amendments and administrative modifications to the FY 2015-2020 TIP will be processed.

**Oversight:** TPB Technical Committee

**Products:** Amendments to the FY 2015-2020 TIP

**Schedule:** July 2015

C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP) (\$636,100)

As required by MAP-21, a major update of the CLRP took place in 2014.

**New Performance Management**

- MAP-21 calls for MPOs, states, and public transportation providers 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 nine areas by April 1, 2015. The states then have a year (April 1, 2016) to establish performance targets in support of those measures; and the MPO subsequently has 180 days (October 1, 2016) 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 of the transportation system. The CLRP will also have to include a system 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 nine 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.

**Ongoing Activities and Schedule**

Document the CLRP via the website and written materials, including:

- Document project submissions for 2015.
- A working group will be established to coordinate the development of regional performance measures and targets for the metropolitan planning area. Once the USDOT has promulgated draft performance measures, TPB staff will coordinate with the DOT and public transportation providers to evaluate the requirements for data collection, analysis, and reporting. Both the collection of current data and

the forecasting of future measures will be evaluated. Following USDOT final rulemaking, the working group will make necessary revisions to the data process and develop recommended performance targets for review and approval by the TPB.

- TPB staff will coordinate the preparation of a system performance report evaluating the condition and performance of the transportation system with respect to the established targets. The report will include a description of the performance measures and targets used in assessing the performance of the transportation system. Once the targets are developed in coordination with the State DOTs and public transportation providers, the CLRP will include the system performance report. The TIP also will include a description of the anticipated effect of the TIP toward achieving the performance targets set in the CLRP.
- An overview of the relationship between the transportation strategies and improvements and the development framework shown in the regional activity centers map.
- Evaluate the plan for disproportionately high and adverse effects on low-income and minority population groups.
- The 2015 CLRP and amendments to the FY 2015-2020 TIP will be prepared and reviewed between January and June 2015 with approval scheduled for July 2015.
- Continue to improve public materials about the plan during plan development and after plan approval so that the materials are more useful to a variety of audiences, less technical and easier for the public to understand.
- Continue to make plan information more visual, and utilize effective visualization technologies. Improve public access to the plan with informative maps and graphics for web and print media, and an online, searchable database.

### **Environmental Consultation**

- 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 the discussion of potential environmental mitigation activities.
- To compare the CLRP to natural and historic resources, maps of transportation and historic resources will be updated with the latest available GIS data from the District and the States and forwarded to federal, state and local agencies for comments.

### **Climate Change Adaption**

- Continue to monitor local, state and national practices for potential applicability to the region.

**Oversight:** TPB Technical Committee

**Products:** Draft 2015 CLRP and documentation, including the System Performance Report

**Schedule:** July 2015

D. FINANCIAL PLAN (\$64,900)

In Spring 2014, the financial analysis for the 2014 CLRP which covers 2015 to 2040 was produced in consultation with the state and local DOTs and public transportation operators.

In FY 2015, the following activities are proposed:

- Review and update the financial analysis for the 2014 CLRP.
- Update financial plan for FY 2015-2020 TIP.

**Oversight:** Technical Committee

**Products:** Update of financial analysis for the 2015 CLRP and FY 2015-2020 TIP

**Schedule:** June 2015

E. PUBLIC PARTICIPATION (\$434,700)

The Participation Plan which was updated in the spring of 2014 will guide all public involvement activities to support the development of the TIP, the CLRP, the Regional Transportation Priorities Plan, and all other TPB planning activities.

Work activities include:

- Support implementation of the TPB Participation Plan.
- Provide public outreach support for the Regional Transportation Priorities Plan. Through a variety of public outreach activities, citizens will discuss the benefits, desirability and feasibility of potential projects and plan components.
- Develop and conduct workshops or events, as needed, to engage the public and community leaders on key regional transportation issues, including challenges reflected in the CLRP and TIP.

- Ensure that the TPB’s website, publications and official documents are timely, thorough and user-friendly.
- Develop new written materials, tools and visualization techniques to better explain to the public how the planning process works at the local, regional and state levels.
- Conduct at least one session of the Community Leadership Institute, a two-day workshop designed to help community activists learn how to get more actively involved in transportation decision making in the Washington region.
- Effectively use technology, including social media and other web-based tools, to spread information about regional transportation planning and engage the public in planning discussions and activities.
- Provide staff support for the TPB Citizens Advisory Committee (CAC), including organizing monthly meetings and outreach sessions, and drafting written materials for the committee.
- Provide staff support for the TPB Access for All Advisory (AFA) Committee that includes leaders of low-income, minority and disabled community groups.
- Prepare AFA Committee memo to the TPB with comments on the CLRP related to projects, programs, services and issues that are important to community groups, such as providing better transit information for limited English speaking populations, improved transit services for people with disabilities, pedestrian and bike access and safety, and potential impacts of transit-oriented development and gentrification.
- Conduct regular public involvement procedures, including public comment sessions at the beginning of each TPB meeting and official public comment periods prior to the adoption of key TPB documents.

**Oversight:** Transportation Planning Board

**Products:** TPB Participation Plan with a proactive public involvement process; CAC and AFA Committee Reports.

**Schedule:** Ongoing, with forums and meetings linked to preparation of the TIP and CLRP

F. PRIVATE ENTERPRISE PARTICIPATION (\$18,800)

The Private Providers Task Force will be supported, and private provider involvement will be documented in the TIP. Quarterly meetings of the TPB Regional Taxicab

Regulators Task Force will also be supported.

**Oversight:** Transportation Planning Board

**Products:** Documentation on Private Provider Involvement

**Schedule:** Annual Public Transit Forum: May 2015  
Draft TIP documentation: June 2015

G. ANNUAL REPORT (\$82,500)

- This issue will describe the main activities completed in 2014.
- Produce the monthly newsletter *TPB News*.
- Write and distribute the *TPB Weekly Report*, a web-based newsletter featuring a short article every week on a single topic of interest in regional transportation.

**Oversight:** Transportation Planning Board

**Product:** *Region* magazine, TPB News and TPB Weekly Report

**Schedule:** June 2015

H. TRANSPORTATION/LAND USE CONNECTION (TLC) PROGRAM (\$430,300)

This work activity strengthens the coordination between land use and transportation planning. Begun as a pilot in November 2006, the program established a clearinghouse to document national best practices as well as local and state experiences with land use and transportation coordination, and offers short-term technical assistance through consultant teams to local jurisdictions to advance their coordination activities.

The following activities are proposed for FY 2015:

- Fund at least six technical assistance planning projects at a level between \$20,000 and \$60,000 each. Fund at least one project for between \$80,000 and \$100,000 to perform project design to achieve 30% completion.
- Fund at least one technical assistance project at up to \$80,000 to complete preliminary engineering and conceptual design work, enabling one previous TLC technical assistance planning project or other member jurisdiction planning project to move towards construction-readiness.
- Conduct the selection process for small capital improvement projects using

funding suballocated to the Washington metropolitan region through the state DOTs from the new MAP-21 Transportation Alternatives Program (TAP). Coordinate program implementation with the state DOTs.

- Maintain and update the TLC Regional Clearinghouse and website
- Develop tools and activities to facilitate regional learning about TLC issues among TPB member jurisdictions through the Regional Peer Exchange Network. Organize at least one regional meeting to facilitate an exchange of information about lessons learned from past TLC projects.
- Identify recommended implementation action steps in each planning project report, such as further study needs, more stakeholder collaboration, suggested land use or local policy changes, and transportation investment opportunities and priorities.
- Provide staff support for TLC Technical Assistance Projects to be conducted as part of the MDOT Technical Assistance Program and for other projects where additional funding is provided by state or local agencies.

**Oversight:** TPB Technical Committee

**Products:** Updated web-based clearinghouse, technical assistance provided by consultant teams to six localities, and implementation toolkit.

**Schedule:** Technical assistance: September 2014-June 2015

I. DTP MANAGEMENT (\$482,800)

This activity includes all department-wide management activities not attributable to specific project tasks in the work program.

**Oversight:** Transportation Planning Board

**Products:** Materials for the meetings of the TPB, the Steering Committee, the Technical Committee, and the State Technical Working Group; responses to information requests from elected officials, federal agencies and media; and participation in external meetings related to TPB work program

**Schedule:** Ongoing throughout the year

## 2. COORDINATION and PROGRAMS

### A. CONGESTION MANAGEMENT PROCESS (CMP) (\$211,000)

- Undertake activities to address the federal requirement for a regional Congestion Management Process component of the metropolitan transportation planning process. Include information from regional Travel Monitoring programs (see Section 5 of the UPWP) addressing congestion and reliability, as well as information on non-recurring congestion as examined in the Management, Operations, and Intelligent Transportation Systems (MOITS) program (see also Task 2.B.).
- Identify and assess strategies that address congestion, in coordination with MOITS, the Metropolitan Area Transportation Operations Coordination Program (see also Task 2.I), the Air Quality Conformity program (see also Task 3.A.), and the regional Commuter Connections Program (see [www.commuterconnections.org](http://www.commuterconnections.org)).
- Analyze transportation systems condition data archives from private sector sources, especially the speed data archive from the I-95 Corridor Coalition/INRIX, Inc. Vehicle Probe Project, and the FHWA's National Performance Management Research Data Set (NPMRDS), as compiled in the Congestion Monitoring and Analysis Task (see also Task 5.B.).
- Address MAP-21 requirements related to the CMP, including:
  - Analyze data from the above sources to support the “congestion reduction”, “System Reliability” and other relevant National Goals for Performance Management.
  - Report regional congestion performance measures based on the available data, especially for congestion reduction and system reliability.
  - Coordinate with member states on congestion reduction and system reliability targets.
- Compile information and undertake analysis for development on four major aspects of the regional CMP:
  - CMP Components of the Constrained Long-Range Plan (CLRP), portions of the CLRP that specifically address CMP and its subtopics, in the form of interlinked web pages of the on-line CLRP, to be updated in conjunction with major updates of the CLRP;
  - CMP Documentation Form Information addresses federally-required CMP considerations associated with individual major projects, to be included with overall project information submitted by implementing agencies to the annual Call for Projects for the CLRP and Transportation Improvement Program (TIP) (see also Task 1.C), and incorporated into the regional CMP; and
  - A CMP Technical Report, published on an as-needed basis, compiling and

summarizing the results of monitoring and technical analysis undertaken in support of the regional CMP. Technical analysis will prepare for the next major update of the CMP Technical Report to be produced in FY2016 (last published in 2014).

- National Capital Region Congestion Report, released quarterly on the TPB website, reviewing recent information on congestion and reliability on the region's transportation system and featured CMP strategies, with a "dashboard" of key performance indicators.

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

**Products:** Updated CMP portions of the CLRP; CMP Documentation Form; National Capital Region Congestion Report; Technical analysis for the future FY2016 CMP Technical Report; documentation as necessary supporting MAP-21 requirements of the CMP; summaries, outreach materials, and white paper(s) on technical issues as needed

**Schedule:** Monthly

B. MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PLANNING (\$350,500)

- 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 2.1.); 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, 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 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

**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

C. TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING (\$77,600)

Under this work task, TPB will provide support and coordination for the transportation sector's role in overall regional emergency preparedness planning, in conjunction with the Metropolitan Washington Council of Governments (COG) Board of Directors, the National Capital Region Emergency Preparedness Council, and other COG public safety committees and efforts. This task is the transportation planning component of a much larger regional emergency preparedness planning program primarily funded outside the UPWP by U.S. Department of Homeland Security and COG local funding. Here specialized needs for transportation sector involvement in Homeland Security-directed preparedness activities will be addressed. Efforts are advised by a Regional Emergency Support Function #1 - Transportation Committee in the COG public safety committee structure, with additional liaison and coordination with the TPB's Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee.

MAP-21 requires the metropolitan planning to address the security of the transportation system for motorized and nonmotorized users.

Major topics to be addressed under this task include the following:

- Liaison and coordination between emergency management and TPB, MOITS, and other transportation planning and operations activities.
- Planning for the role of transportation as a support agency to emergency management in catastrophic or declared emergencies, including:
  - Emergency coordination and response planning through the emergency management and Homeland Security Urban Area Security Initiative (UASI) processes
  - Emergency communications, technical interoperability, and capabilities
  - Public outreach for emergency preparedness
  - Coordination with regional critical infrastructure protection and related security planning
  - Emergency preparedness training and exercises

- Conformance with U.S. Department of Homeland Security (DHS) directives and requirements
- Applications for and management of UASI and other federal Homeland Security funding.

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

**Products:** Agendas, minutes, summaries, outreach materials as needed; white paper(s) on technical issues as needed; regular briefings and reports to TPB and MOITS as necessary; materials responding to DHS and UASI requirements; documentation as necessary supporting MAP-21 requirements of transportation emergency preparedness planning

**Schedule:** Monthly

D. TRANSPORTATION SAFETY PLANNING (\$128,800)

The Washington metropolitan area is a diverse and rapidly growing region, a major tourist destination, and a gateway for immigrants from all over the world. Growth has meant more people driving more miles and more people walking, especially in inner suburban areas where pedestrians were not common in years past. MAP-21 requires metropolitan planning to increase the safety of the transportation system for motorized and nonmotorized users. These and other factors, along with heightened awareness of the safety problem, have demonstrated the need for the regional transportation safety planning program.

- Under this work task, TPB will provide opportunities for consideration, coordination, and collaboration planning for safety aspects of the region's transportation systems. Safety planning will be in coordination with the State Strategic Highway Safety Plan efforts of the District of Columbia, Maryland, and Virginia, as well as other state, regional, and local efforts. Coordination will be maintained with the regional Street Smart pedestrian and bicycle safety outreach campaign. Major topics to be addressed in the Transportation Safety Planning task include the following:
  - Support of the Transportation Safety Subcommittee
  - Safety data compilation and analysis
  - Address MAP-21 requirements related to the CMP, including:
    - Compile fatality and injury data to support the “safety” National Goal for Performance Management.
    - Provide information on performance measures for safety.

- Coordinate with member states on addressing safety targets.
- Coordination on metropolitan transportation planning aspects of state, regional, and local safety efforts, and with transportation safety stakeholders
- Coordination with other TPB committees on the integration of safety considerations
- Maintenance of the safety element of region's long-range transportation plan.

**Oversight:** Transportation Safety Subcommittee

**Products:** Safety element of the CLRP; summaries, outreach materials, and white paper(s) on technical issues as needed; documentation as necessary supporting MAP-21 requirements of transportation safety planning

**Schedule:** Quarterly

E. BICYCLE AND PEDESTRIAN PLANNING (\$125,000)

Under this work task, TPB will provide opportunities for consideration, coordination, and collaborative enhancement of planning for pedestrian and bicycle safety, facilities, and activities in the region, advised by its Bicycle and Pedestrian Subcommittee. An updated Regional Bicycle and Pedestrian Plan was completed in FY2014, and provides guidance for continued regional planning activities. Major topics to be addressed include the following:

- Advise the TPB, TPB Technical Committee, and other TPB committees on bicycle and pedestrian considerations in overall regional transportation planning.
- Maintain the Regional Bicycle and Pedestrian Plan and supporting Bicycle and Pedestrian Plan database on the TPB Web site for member agency and public access.
- Provide the TPB an annual report on progress on implementing projects from the Regional Bicycle and Pedestrian Plan. Provide the public with information on the status of bicycle and pedestrian facilities planning and construction in the Washington region.
- Monitor regional Complete Streets and Green Streets activities.
- Compile bicycle and pedestrian project recommendations for the Transportation Improvement Program (TIP).

- Coordinate with the annual "Street Smart" regional pedestrian and bicycle safety public outreach campaign (Street Smart is supported by funding outside the UPWP).
- Advise on the implementation and potential expansion of the regional bikesharing system and associated marketing materials.
- Examine regional bicycle and pedestrian safety issues, their relationship with overall transportation safety, and ensure their consideration in the overall metropolitan transportation planning process, in coordination with task 2.D above.
- Examine bicycle and pedestrian systems usage data needs for bicycle and pedestrian planning, and ensure their consideration in the overall metropolitan transportation planning process.
- Coordinate and host one or more regional bicycle and pedestrian planning or design training, outreach, or professional development opportunities for member agency staffs or other stakeholders.
- Provide staff support to the Bicycle and Pedestrian Subcommittee, supporting the regional forum for coordination and information exchange among member agency bicycle and pedestrian planning staffs and other stakeholders.

**Oversight:** Regional Bicycle and Pedestrian Subcommittee

**Products:** Compilation of bicycle and pedestrian facilities for the TIP; maintenance of the regional bicycle and pedestrian plan on the TPB Web Site; one or more regional outreach workshops; Subcommittee minutes, agendas, and supporting materials; white papers or other research and advisory materials as necessary

**Schedule:** Bimonthly

#### F. REGIONAL BUS PLANNING (\$160,000)

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

**Products:** Data compilation, reports on technical issues, and outreach materials

**Schedule:** Monthly

G. HUMAN SERVICE TRANSPORTATION COORDINATION (\$141,200)

Under the final USDOT planning requirements for SAFETEA-LU, a Coordinated Plan was required to guide funding decisions for three Federal Transit Administration (FTA) programs: 1) Formula Program for Elderly Persons and Persons with Disabilities (Section 5310); 2) Job Access and Reverse Commute for Low Income Individuals (JARC, Section 5316); and 3) New Freedom Program for Persons with Disabilities (Section 5317). In 2009, the TPB adopted an Update to the Coordinated Human Service Transportation Plan for the National Capital Region ("Coordinated Plan"). The TPB became the designated recipient of the SAFETEA-LU's JARC and New Freedom programs in 2006 for the Washington

## DC-VA-MD Urbanized Area.

MAP-21 eliminated the JARC program and consolidated the New Freedom and the Section 5310 Elderly and Individuals with Disabilities Program into a new program "Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities". A Joint Designated Recipient arrangement between the TPB, the D.C. Department of Transportation (DDOT), the Maryland Transit Administration (MTA), and the Virginia Department of Rail and Public Transportation (DRPT) was finalized in FY2013. Under the Joint Designated Recipient arrangement, the TPB is responsible for the federally required Coordinated Plan, project solicitation and selection. DDOT, DRPT and MTA receive the funds directly from the FTA and administer the projects in their jurisdiction.

The TPB established the Human Service Transportation Coordination Task Force ("Task Force") to develop and help implement the Coordinated Plan which guided project selection for JARC and New Freedom, and under MAP-21, and will guide project selection for the new Section 5310 Enhanced Mobility program. The Task Force is comprised of human service and transportation agency representatives from each TPB jurisdiction as well as consumers and private providers. The Task Force establishes priorities for the annual solicitations and assists with outreach.

Proposed work activities include:

- Support the activities of the TPB Human Service Transportation Coordination Task Force which will oversee the following work activities:
  - Review and update the Coordinated Plan as needed based on FTA guidance on MAP-21 for human service transportation coordination and the new Section 5310 Enhanced Mobility Program;
- The TPB will carry out the following activities as defined under the joint designated recipient arrangement between the TPB, DDOT, DRPT and MTA:
  - Develop priority projects in preparation for the solicitation for the Enhanced Mobility Program in the Washington DC-VA-MD Urbanized Area;
  - Conduct a project solicitation for the Enhanced Mobility Program; and
  - Convene a selection committee that will make grant funding recommendations for the Enhanced Mobility funding to the TPB in coordination with DDOT, DRTP and MTA.
- Coordinate the activities of the coordination task force with the TPB Access For All Advisory Committee and the Private Providers Task Force.

**Oversight:** Transportation Planning Board

**Products:** Updated Coordinated Plan, Project Priorities for 2014 Solicitation, and Project Recommendations for Enhanced Mobility Funding

**Schedule:** June 2015

H. FREIGHT PLANNING (\$154,500)

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

**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

#### I. METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING (\$123,600)

Under this work task, TPB will provide planning support for the Metropolitan Area Transportation Operations Coordination (MATOC) Program, in conjunction with the MATOC Steering Committee, subcommittees, and partner agencies. This task is the metropolitan transportation planning component of a larger set of MATOC Program activities, including operational and implementation activities, funded outside the UPWP. The Metropolitan Area Transportation Operations Coordination (MATOC) Program's mission is to provide situational awareness of transportation operations in the National Capital Region (NCR) through the communication of consistent and reliable information, especially during incidents. MATOC's information sharing is undertaken in large part through the Regional Integrated Transportation Information System (RITIS). RITIS is an automated system that compiles, formats, and shares real-time traffic and transit data among the region's transportation agencies. RITIS was developed on behalf of the region by the Center for Advanced Transportation Technology Laboratory at the University of Maryland. Data provided through RITIS is in daily use by the region's major transportation operations centers.

As a complement to the externally-funded operations activities of MATOC, this UPWP task is to provide ongoing TPB staff planning assistance to the MATOC Program, as a part of the TPB's metropolitan transportation planning activities. Planning activities under this task include:

- **Committee Support:** Provide administrative support of MATOC Steering Committee and subcommittee meetings, including preparation of agendas and summaries and tracking of action items.
- **TPB Reports:** Provide regular briefings to the TPB on MATOC Program progress.
- **TPB Staff Participation:** Provide input and advice to the MATOC Information Systems Subcommittee and Operations Subcommittee.
- **Coordinate as necessary with the Management, Operations, and Intelligent Transportation Systems (MOITS) Technical Subcommittee**
- **Outreach:** Coordinate the work of MATOC with other organizations, for example, with public safety or emergency management groups and media representatives; prepare articles, presentations and brochures to convey MATOC concepts, plans, and accomplishments. Also coordinate with the COG Regional Emergency Support Function # 1 - Emergency Transportation Committee.
- **Implementation Planning:** Prepare implementation plans describing the work required to reach defined stages of MATOC operating capability, including expert input from MATOC subcommittees.
- **Financial and Legal Analysis:** Support discussion of the identification of funding sources, estimation of funding needs, as well as preparation of legal agreement materials that provide for the long term sustainability of MATOC.
- **Performance Measurement:** Support MATOC committee discussions of assessing progress against MATOC's defined goals and objectives.
- **Risk Management:** Identify and monitor major risks to progress and identify actions to be taken in order to avoid incurring risks or mitigating their consequences.
- **Supporting Materials:** Develop supporting or informational materials for the above activities as necessary.

**Oversight:** MATOC Steering Committee; MOITS Technical Subcommittee

**Products:** Agendas, minutes, summaries, and outreach materials as needed; white paper(s) on technical issues as needed; regular briefings and reports to the TPB, MATOC committees, and the MOITS Policy Task Force and Technical Subcommittee.

**Schedule:** Monthly

### 3. FORECASTING APPLICATIONS

#### A. AIR QUALITY CONFORMITY (\$584,600)

The FY2015 work program will include the following tasks:

- Completion of conformity analysis of the 2014 CLRP by preparing the final report, which documents procedures, results, and comments and testimony received; in addition, all data files for use in subsequent regional and corridor/subarea planning studies are organized and documented.
- Preparation and execution of a work program for analysis of the 2015 CLRP & FY2015-20 TIP using the most up-to-date project inputs, planning assumptions, travel demand model, software and emissions factor model (MOVES); preparation of a draft report on the conformity assessment.
- TPB interagency and public consultation procedures; this includes funding for review and coordination work on the part of COG/DEP staff to reflect involvement by the Metropolitan Washington Air Quality Committee (MWAQC) in the public and interagency consultation process.
- Coordination of project solicitation, documentation, and emissions reduction analysis associated with CMAQ projects. Perform incidental air quality conformity reviews (non-systems level), as required throughout the year.
- Keeping abreast of federal requirements – as they are updated throughout the year – on air quality conformity regulations and as guidance is issued; revision of work program elements as necessary.

**Oversight:** Technical Committee in consultation with MWAQC committee

**Products:** Final report on 2013 CLRP Air Quality Conformity Assessment; Work Program for 2015 CLRP & FY2015-20 TIP Conformity Assessment

**Schedule:** June 2015

#### B. MOBILE EMISSIONS ANALYSIS (\$707,200)

The FY2015 work program will include the following tasks:

- Development of input data for MOVES model runs for the 2015 CLRP & FY2015-20 TIP Air Quality Conformity Assessment, review and evaluation of MODEL outputs. Mobile emissions may also be developed for GHG pollutants using the MOVES model (as deemed necessary) in support of strategic planning scenarios as part of the TPB's Scenario Task Force activities and the COG Board's Climate, Energy, and Environment Policy Committee (CEEPC).
- Execution of sensitivity tests (as necessary) assessing the likely impacts of input data changes in MOVES model runs
- Measurement of the on road mobile emissions reductions attributable to current and future Transportation Emissions Reductions Measures (TERMs)
- Technical support to the Commuter Connections Program in support of developing implementation plans and evaluating current and future TERMS
- Funding for the COG Department of Environmental Programs (DEP) in support of its contributions towards provision of data from the state air agencies, and updates on federally-mandated issues related to mobile emissions as part of the annual air quality conformity determinations
- Response to requests for technical assistance by governmental entities and/or their consultants working on technical analyses or municipal transportation planning.
- Development of presentation material, rendering technical support and attendance of MWAQC and CEEPC meetings, policy discussions and public hearings.
- Monitoring of performance measures development associated with Air Quality as mandated by MAP-21
- Monitoring of the development of the newest version of MOVES (MOVES2914) by keeping up-to-date on technical issues, release date, grace period, and technical support activities provided by EPA; staff training on MOVES2 2014 may also be necessary

**Oversight:** Technical Committee in coordination with MWAQC committees

**Products:** Reports on TERM evaluation and on greenhouse gas emissions reduction strategies; Updated mobile source emissions inventories / reports as required addressing ozone and PM<sub>2.5</sub> standards and climate change requirements

**Schedule:** June 2015

B. REGIONAL STUDIES (\$531,800)

Regional Transportation Priorities Plan (RTPP) Update

Development of the RTPP began in July 2011. At the beginning of 2014, the TPB approved the RTPP. Approval of the next RTPP is tentatively scheduled for mid-2016, well in advance of the 2018 update to the CLRP.

In FY 2015, TPB staff will initiate activities to update the RTPP. Tasks will include:

- RTPP/ 2014 CLRP Baseline Comparison – Beginning in the spring of 2014 and ending in the summer of 2014, staff will conduct an evaluation to determine how well the three overarching priorities identified in the 2014 RTPP are being met by the transportation system laid out in the 2014 CLRP. This assessment will inform the scope and process for the RTPP update.
- Update of RTPP Scoping Process – In the fall of 2014, staff will support a scoping process to determine the parameters for the next RTPP. Scoping activities will include defining the plan’s purpose and approach, as well as establishing a timeline and key benchmarks. At the end of calendar year 2014, the TPB will approve the scope for the update of the RTPP.
- Outreach to Kick-Off the Planning Process – In the winter and spring of 2015, staff will conduct outreach to discuss and reaffirm regional transportation goals, and identify options and strategies for meeting those goals. Outreach will seek out the opinions of a wide variety of constituencies, including average citizens, historically disadvantaged communities, opinion leaders and community activists, as well as stakeholders who are already involved in the TPB process.
- Determine and Conduct Planning Activities and Analysis to Inform the RTPP – In the spring and summer of 2015, staff will identify and conduct analysis and other planning activities that will provide the necessary inputs for plan development. Activities may include developing new/revised transportation and land-use scenarios, conducting analysis of those scenarios, and other research and analysis efforts, such as benefit-cost analysis. Activities may also include focused outreach to TPB member jurisdictions to identify key components of the RTPP.

Based on the groundwork laid in FY2015, the RTPP update process in FY2016 is likely to include: identification of preferred content for the Plan, development of draft document, additional outreach (especially to key stakeholders), and final approval of the RTPP by the TPB in mid-2016.

Other FY 2015 activities include:

- Provision of staff support involving transportation for COG's FY 2015 Region Forward and Economy Forward regional planning and development efforts.
- Preparing project grant applications for promising US DOT grant opportunities, as approved by the TPB.

**Oversight:** TPB

**Products:** RTPP/ 2014 CLRP Baseline Comparison - October

Scope of Work for Update of RTPP – December

Project grant applications for USDOT grant funding programs as approved by TPB

D. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING PROCESSES (\$831,000)

- Support the Planning Directors Technical Advisory Committee (PDTAC) in the coordination of local, state and federal planning activities and the integration of land use and transportation planning in the region.
- Analyze changes in regional economic, demographic and housing trends drawing on the results from the Census American Communities Survey (ACS) and from other available federal, state, local data sources.
- Work with members of the Cooperative Forecasting Subcommittee to enhance and improve the quality of small area (TAZ-level) employment data. This effort will involve the tabulation and analysis of state ES-202 employment data files for DC, MD and VA and collaboration with the National Capital Planning Commission (NCPD) and the General Services Administration (GSA) to obtain site specific employment totals for federal employment sites in the region.
- Work with members of the Cooperative Forecasting Subcommittee to refine the national and regional economic growth assumptions by major industry groups that are inputs into the top-down Cooperative Forecasting regional econometric model. Obtain consensus on regional econometric benchmark projections for Round 8.4 and Round 9.0 Cooperative Forecasts.
- Work with the members of the Cooperative Forecasting Subcommittee, the region's Planning Directors, the Baltimore Metropolitan Council, the Tri-County Council for Southern Maryland, the George Washington Regional Planning Commission and the Planning Directors of Fauquier County- VA, Clarke County-VA and Jefferson County-WV to develop updates to the Round 8.3 Cooperative Forecasts by jurisdiction and reconcile these updated local jurisdiction forecasts with new regional econometric benchmark projections.

- Update the technical documentation of regional econometric benchmark projections and methodologies employed by local jurisdictions in preparing their jurisdictional and TAZ-level Cooperative Forecasts.
- Work with the Cooperative Forecasting Subcommittee and the region's Planning Directors to develop updated Round 8.4 Transportation Analysis Zone (TAZ)-level growth forecasts.
- Update and maintain Cooperative Forecasting land activity databases that are used as input into TPB travel demand-forecasting model. Prepare updated Round 8.4 TAZ-level population, household, and employment forecasts for both COG member and non-member jurisdictions in the TPB Modeled Area.
- Analyze and map Round 8.4 growth forecasts for identified COG Activity Centers.
- Work with the Cooperative Forecasting Subcommittee and the region's Planning Directors to assess the effects of significant transportation system changes on the Cooperative Forecasting land activity forecasts. Document key land use and transportation assumptions used in making updates to the Cooperative Forecasting land activity forecasts
- Respond to public comments on updated Round 8.4 forecasts and the Cooperative Forecasting process.
- Develop and publish useful economic, demographic and housing-related information products including the Regional Economic Monitoring Reports (REMS) reports, the annual "Commercial Development Indicators" and economic and demographic data tables to be included in the Region Forward work program.

**Oversight:** Technical Committee

**Products:** Coordination of Land Use and Transportation Planning in the Region, Review and Refinement of Regional Econometric Projections, Update of Regional Planning Databases, Analysis of Activity Center Growth Forecasts, Development and Distribution of technical reports and information products.

**Schedule:** June 2015

## 4. DEVELOPMENT OF NETWORKS AND MODELS

### A. NETWORK DEVELOPMENT (\$792,800)

This activity will involve the development of transportation network files which are primary inputs to the regional travel demand model and are used to reflect system improvements as specified in the evolving TIP and CLRP. During FY 2015, TPB staff will continue to develop network files that are compliant with the adopted Version 2.3.52 travel demand model (or its successor) to support regional and project planning needs. Staff will continue to serve network-related needs associated with project planning and long-term models development activities.

The following work activities are proposed:

- Update the TPB's base-year (2014) transit network to reflect the most current operations of the local transit providers in the Metropolitan Washington Region. Staff will utilize digital (GTFS) data that is available on the web and published schedules for services that are not included in the digital files.
- Prepare base- and forecast-year highway and transit networks in accordance with the 2014 CLRP and FY2015-2020 TIP elements that are received from state and local agencies. The networks will be prepared in compliance with the Version 2.3.52 travel demand model requirements. Provide guidance in the development of network inputs to other technical staff members in the department.
- Support the development of networks for special regional planning studies and for developmental work in the Models Development program.
- Continue to support technical refinements in the models development, including a multi-year migration in the transit network building software, from TRNBUILD to Public Transport (PT).
- Support the ongoing analysis of newly collected INRIX speed data and traffic ground count data for the evaluation of the regional travel model performance.
- Respond to technical data requests associated with network-related information, including transit line files, station files, and shape files associated with features of the regional highway or transit network.
- Further refine or upgrade the TPB's existing ArcGIS-based system which is used to facilitate network coding and network file management.

**Oversight:** Travel Forecasting Subcommittee

**Products:** A series of highway and transit networks

reflecting the latest TIP and Plan, and compliant with the Version 2.3 travel model. Technical documentation will be furnished.

**Schedule:** June 2015

B. GIS TECHNICAL SUPPORT (\$565,300)

- Provide data and technical support to staff using the COG/TPB GIS for development and distribution of data and information developed by the TPB planning activities, including Regional Studies, the CLRP, the TIP, Congestion Monitoring and Analysis, Cooperative Forecasting, Regional Transportation Data Clearinghouse, Network and Models Development, and Bicycle Planning.
- Provide ongoing maintenance and support of GIS-based transportation network management and editing tools.
- Enhance the COG/TPB GIS Spatial Data Library with updated transportation and non-transportation features as these data become available.
- Add additional transportation attribute data, land use features and imagery data to the COG/TPB GIS Spatial Data Library.
- Update GIS Spatial Data Library documentation, GIS User Guides and technical documentation of various GIS software applications as required.
- Maintain and update an intranet-based GIS Project Information Center that lists and describes DTP GIS databases and applications currently being developed, as well as those that are currently available.
- Train staff on use of GIS databases for transportation planning.
- Continue to coordinate the regional GIS activities with state DOTs, WMATA, and the local governments through COG's GIS Committee and subcommittees.
- Maintain and update COG/TPB's GIS-related hardware and software.
- Respond to request for COG/TPB GIS metadata, databases, and applications.

**Oversight:** Technical Committee

**Products:** Updated GIS software, databases, User documentation, Training materials, Support of GIS procedures to develop and manage transportation networks.

**Schedule:** June 2015

C. MODELS DEVELOPMENT (\$1,103,400)

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.

<b>Oversight:</b>	Travel Forecasting Subcommittee
<b>Products:</b>	Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process, where applicable.
<b>Schedule:</b>	June 2015

D. SOFTWARE SUPPORT (\$184,300)

The FY2015 work program will include the following tasks:

- Continued support on executing CUBE / TP+ runs and migration to CUBE / Voyager in running TPB travel demand forecasting applications.
- Continued support on MOVES emissions model runs and supporting software applications.

- Training of DTP staff in various applications of CUBE/ TP+, CUBE / Voyager, MOVES2014 and post-model applications such as integration with TRANSIM (as deemed necessary).
- Monitoring of the performance of DTP desktop and laptop microcomputer hardware and software and make upgrades as appropriate.
- Coordination with the COG Office of Technology Programs and Services (OTPS) staff in this task and in applications under the Microsoft Windows operating system.
- Maintenance of the data storage systems for the back-up, archiving and retrieval of primary regional and project planning data files.
- Support development and execution of applications of micro simulation software as appropriate.

**Oversight:** Technical Committee.

**Products:** Operational travel demand forecasting process plus operational MOVES2010 Models; File transfer, storage and retrieval processes; DTP staff training in MOVES2014 systems; and Microcomputer hardware to support CUBE/ TP+, CUBE / Voyager, MOVES2010, and other operations.

**Schedule:** June 2015

## 5. TRAVEL MONITORING

### A. CORDON COUNTS (\$258,400)

- In fall of 2014 staff will complete data collection for the Regional HOV Monitoring Project and process this data.
- Prepare a technical report documenting the procedures and results of the HOV and other data collected for this project in the spring and fall of 2014.
- Technical report will include information on vehicle volumes by time of day, vehicle classification, auto occupancy, transit passenger volumes, and analysis of travel time data collected.

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**Oversight:** Travel Forecasting Subcommittee

**Estimated Cost:** \$250,800

**Products:** Regional HOV Monitoring Project data and Technical Report

**Schedule:** January 2015

### B. CONGESTION MONITORING AND ANALYSIS (\$360,500)

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 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

**Products:** 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

#### C. TRAVEL SURVEYS AND ANALYSIS

Household Travel Survey (\$727,500)

- 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.
- 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

**Product:** Processing and Analysis of Household Travel Survey Analyses, Information Reports, Updated External Cordon Counts, Maintenance of Travel Survey Data and Documentation, Planning for Large Sample Region-wide Household Travel Survey.

**Schedule:** June 2015

D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE (\$327,400)

- Update Clearinghouse data files with FY13-14 highway and transit network data.
- Update Clearinghouse traffic volume data with AADT and AAWDT volume estimates, hourly directional traffic volume counts and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.
- Update Clearinghouse transit ridership data with data received from WMATA, PRTC, VRE, MTA and local transit agencies including the Ride-On, The Bus, ART, DASH and the Fairfax Connector.
- Add newly collected and processed freeway and arterial road speed and level of service (LOS) data to the Regional Transportation Data Clearinghouse network.
- Add updated Cooperative Forecasting data to the Clearinghouse by TAZ.
- Update Regional Clearinghouse user manuals and documentation.
- Display Clearinghouse volume, speed and LOS data on a web-based application that utilizes satellite/aerial photography imagery with zooming user interface.
- Distribute Regional Transportation Clearinghouse Data to TPB participating agencies via a web-based ArcGIS application.

**Oversight:** Technical Committee

**Product:** Updated Clearinghouse Database and Documentation; Web Interface to Access Clearinghouse Data

**Schedule:** June 2015

## **6. TECHNICAL ASSISTANCE (\$1,793,500)**

The funding level allocated to technical assistance is 15.3 percent of the total new FY 2013 funding in the basic work program. The funding level for each state is 13.5 percent of the total new FTA and FHWA MPO planning funding provided by each state. The funding level for WMATA is 8 percent of the total new FTA funding. The specific activities and levels of effort are developed through consultation between each state and WMATA representatives and DTP staff.