

# **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

**Item 9**

## **M E M O R A N D U M**

December 28, 2007

**TO:** Technical Committee

**FROM:** Gerald Miller  
Director, Program Coordination  
Department of Transportation Planning

**SUBJECT:** Preliminary Budget and Outline for FY 2009 Unified Planning Work Program (UPWP)

---

A preliminary FY 2009 budget for the UPWP together with an outline of the proposed work activities for FY 2009 are attached. The preliminary budget for the basic work program is \$11,007,400. This is 2.7 percent less than the FY 2008 budget level of \$11,308,500.

The budget estimate for the FY 2008 UPWP basic work program requires the funding allocations of FTA Section 5303 and FHWA PL funding under SAFETEA-LU that are provided by the DOTs. I have made the assumption that the funding allocations to be provided by DDOT, MDOT and VDOT will be the same as the FY 2008 levels.

In addition, the budget estimate assumes that \$1,057,000 of unobligated funds from FY 2007 will be available. (This is \$301,100 less than the unspent funds from FY 2006.) The estimated funding by DOT is shown on the next page.

<b>ESTIMATED PRELIMINARY FUNDING FOR FY 2009 UPWP</b>				12/28/07
	<b>FTA</b>	<b>FHWA</b>	<b>New FY 2009</b>	<b>Current FY 2008</b>
<b>DDOT</b>				
New 2009	\$387,000 (0%) <sup>a</sup>	\$1,840,000 (0%) <sup>a</sup>	\$2,227,000	\$2,227,000
Unob.2007				269,400
				\$2,496,400
<b>MDOT</b>				
New 2009	948,200 (0%) <sup>a</sup>	3,355,600 (0%) <sup>a</sup>	4,303,800	4,303,800
Unob.2007				718,900
				5,022,700
<b>VDOT</b>				
New 2009	807,600 (0%) <sup>a</sup>	2,612,000(0%) <sup>a</sup>	3,419,600	3,419,600
Unob.2007				369,800
				3,789,400
TOTAL New 2009	2,142,800	7,807,600	\$9,950,400	\$9,950,400
TOTAL Unob.2007			\$1,057,000	\$1,358,100
<b>FY 2008 Grand Total</b>			\$11,007,400	\$11,308,500

<sup>a</sup> Percent change from new FY 2008 funding

**Technical Assistance Totals:**

- 1) For DC, MD, VA: 13.5% of total new allocation (\$300,600 + \$581,000 + \$461,600 = \$1,343,200)
- 2) For WMATA: 8% of total new FTA funding = \$171,400 (\$2,142,800 for FY09)
- 3) Total Technical Assistance is \$1,514,600 or 15.2 percent of total new funding of \$9,950,400 for FY 09.

## TPB FY 2009 WORK PROGRAM FUNDING CHANGES FROM FY 2008

Work Activity	FY 2009	FY 2008	FY09-FY08	% Change
<b>1. PLAN SUPPORT</b>				
A. Unified Planning Work Program (UPWP)	70,700	70,700	0	0
B. Transp Improvement Program (TIP)	151,700	151,700	0	0
C. Constrained Long-Range Plan	558,400	508,100	50,300	10
D. Financial Plan	134,000	84,000	50,000	60
E. Public Participation	323,900	323,900	0	0
F. Private Enterprise Participation	18,300	18,300	0	0
G. Annual Report	80,100	80,100	0	0
H. Transportation/Land Use Connection Progr	355,000	255,000	100,000	39
I. DTP Management	452,100	452,100	0	0
Subtotal	2,144,200	1,943,900	200,300	10
<b>2. COORDINATION and PROGRAMS</b>				
A. Congestion Management Process (CMP)	175,000	150,000	25,000	17
B. Management, Operations, and ITS Planning	350,000	350,000	0	0
C. Emergency Preparedness Planning	75,400	75,400	0	0
D. Transportation Safety Planning	100,000	75,000	25,000	33
E. Bicycle and Pedestrian Planning	108,700	108,700	0	0
F. Regional Bus Planning	100,000	100,000	0	0
G. Human Service Transportation Coordination	105,000	105,000	0	0
H. Freight Planning	101,000	101,000	0	0
Subtotal	1,115,100	1,065,100	50,000	5
<b>3. FORECASTING APPLICATIONS</b>				
A. Air Quality Conformity	563,200	513,200	50,000	10
B. Mobile Emissions Analysis	640,100	640,100	0	0
C. Regional Studies	315,800	415,800	-100,000	-24
D. Coord Coop Forecasting & Transp Planning	676,800	676,800	0	0
Subtotal	2,195,900	2,245,900	-50,000	-2
<b>4. DEVELOPMENT OF NETWORKS/MODELS</b>				
A. Network Development	769,700	744,700	25,000	3
B. GIS Technical Support	498,800	498,800	0	0
C. Models Development	1,071,200	969,200	102,000	11
D. Software Support	178,900	178,900	0	0
Subtotal	2,518,600	2,391,600	127,000	5
<b>5. TRAVEL MONITORING</b>				
A. Cordon Counts	230,000	230,000	0	0
B. Congestion Monitoring and Analysis	521,200	521,200	0	0
C. Travel Surveys and Analysis			0	
Household Travel Survey	500,000	1,128,400	-628,400	-56
D. Regional Trans Data Clearinghouse	267,900	267,900	0	0
Subtotal	1,519,100	2,147,500	-628,400	-29
<b>Core Program Total (I to V)</b>	<b>9,492,900</b>	<b>9,794,000</b>	<b>-301,100</b>	<b>-3.1</b>
<b>6. TECHNICAL ASSISTANCE</b>				
A. District of Columbia	300,500	300,500	0	
B. Maryland	581,000	581,000	0	
C. Virginia	461,600	461,600	0	
D. WMATA	171,400	171,400	0	
Subtotal	1,514,500	1,514,500	0	
<b>Total, Basic Program</b>	<b>11,007,400</b>	<b>11,308,500</b>	<b>-301,100</b>	<b>-2.7</b>
<b>7. CONTINUOUS AIRPORT SYSTEM PLANNING</b>				
A. Update Ground Access Forecasts		318,000		
<b>GRAND TOTAL</b>		11,626,500		

**PROPOSED WORK ACTIVITIES FOR FY 2009**  
(July 1, 2008 to June 30, 2009)

**1. PLAN SUPPORT**

A. UNIFIED PLANNING WORK PROGRAM (\$70,700)

- 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:** Technical Committee

**Products:** UPWP for FY 2010, amendments to FY 2009 UPWP, monthly progress reports and state invoice information, federal grant materials

**Schedule:** Draft: January 2009 Final: March 2009

B. TRANSPORTATION IMPROVEMENT PROGRAM (TIP) (\$151,700)

- The FY 2009-2014 TIP and 2008 CLRP are scheduled to be adopted in July 2008, and the draft FY 2010-2015 TIP and 2009 CLRP will be prepared and reviewed between January and June 2009.
- The TIP projects will be searchable on the web.
- Annual certification of compliance with regulations on providing transit services to persons with disabilities will be prepared.
- The TIP project data and tables will be accessible to the public through the Internet.
- The geographic information system-linked database TIP and CLRP project data and air quality conformity information will be improved to facilitate updating and reporting.
- An annual listing of projects for which federal funds have been obligated in the preceding year will be prepared.

**Oversight:** Technical Committee

**Products:** amendments to FY 2009-2014 TIP, draft FY 2010-2015 TIP

**Schedule:** Draft for Public Comment: June 2009

C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP) (\$558,400)

The development of the annual amendment of the long range transportation plan will follow the final SAFETEA-LU planning regulations.

The following work activities are proposed:

- Continue to consult with the federal, state and local agencies responsible for natural resources, airport operations, freight movements, environmental protection, conservation and historic preservation in the District of Columbia, Maryland and Virginia.
- 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.
  - New materials may include regional transportation issue briefs, brochures, PowerPoint slide shows, and interactive web features such as a community Calendar showing public involvement opportunities and a searchable map or database of projects in the plan.
- Continue to make plan information more visual, and utilize effective visualization technologies. Improve public access to the plan with informative maps and graphics, via the Internet and other means.
- The FY 2009-2014 TIP and 2008 CLRP are scheduled to be adopted in July 2008, and the draft FY 2010-2015 TIP and 2009 CLRP will be prepared and reviewed between January and June 2009.
- Document the 2009 plan and future plan amendments via a website and written materials, including:
  - How the plan addresses the SAFETEA-LU planning factors as reflected by the goals of the TPB Vision.
  - 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.

**Oversight:** Technical Committee

**Products:** 2008 plan documentation and draft 2009 plan

**Schedule:** June 2009

D. FINANCIAL PLAN (\$134,000)

- Revise and update financial analysis for the 2009 plan.
- Document financial plan for the FY 2010-2015 TIP.

**Oversight:** Technical Committee

**Products:** Revised Financial Analysis for 2008 Plan and FY 2010-2015 TIP

**Schedule:** January, 2009

E. PUBLIC PARTICIPATION (\$323,900)

The Public Participation Plan which was adopted in December 2008 will guide all public involvement activities to support the development of the new TIP and CLRP as well as all other TPB planning activities.

Work activities include:

- Support the TPB Public Participation Plan.
- Develop and conduct workshops or events to engage the public and community leaders on key regional transportation issues, These efforts will focus particularly on engaging community leaders who have not traditionally been involved in the regional transportation planning process.
- Conduct two or more Community Leadership Institute workshops.
- Gather input and comments from the public, including bicyclists, pedestrians and those with disabilities, and ensure input is available to decision makers.
- Provide staff support for the TPB Citizens Advisory Committee (CAC).
- Provide staff support for the TPB Access For All Advisory (AFA) Committee that contains leaders of low-income, minority and disabled community groups
- Prepare AFA Committee report identifying priority 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.

- Produce and distribute monthly edition of *TPB News*

**Oversight:** Transportation Planning Board

**Products:** TPB Public Participation Plan with a proactive public involvement process, *TPB News*; AFA Committee Report

**Schedule:** Ongoing with forums and meetings linked to preparation of TIP and plan

F. PRIVATE ENTERPRISE PARTICIPATION (\$18,300)

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

**Oversight:** Transportation Planning Board

**Products:** Documentation on Private Provider Involvement

**Schedule:** Annual Public Transit Forum: May 2009  
Draft in TIP for Public Comment: June 2009

G. ANNUAL REPORT (\$80,100)

- This issue will describe the main activities completed in 2008 and the 2008 plan.

**Oversight:** Transportation Planning Board

**Product:** *Region* magazine

**Schedule:** June 2009

H. TRANSPORTATION/LAND USE CONNECTION (TLC) PROGRAM (\$355,000)

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 2009:

- Maintain and update the TLC Regional Clearinghouse and website
- Fund at least six technical assistance planning projects at a level of up to \$30,000 each.
- 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 priorities.
- Prepare an implementation “toolkit” to address key challenges such as maintaining affordable housing in developing activity centers and addressing the different perspectives on density and congestion at the local and regional levels.
- Provide staff support for five TLC Technical Assistance Projects to be conducted as part of the VDOT Multimodal Grant 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: November 2008-June 2009  
Implementation toolkit: March 2009

I. DTP MANAGEMENT (\$452,100)

- 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) (\$175,000)

The regional Congestion Management Process (CMP) is a required component of the regional transportation planning process. The CMP is to address the systematic management of traffic congestion and provision of information on transportation system performance. A CMP is to include alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. Recommended components of a CMP include a system for data collection and performance monitoring, a range of strategies for addressing congestion, performance measures or criteria for identifying when action is needed, and a system for prioritizing which congestion management strategies would be most effective. No single occupant vehicle (SOV) capacity expanding project can receive federal funds unless it is part of a CMP.

Under this work task, TPB will compile information and undertake analysis for development of the CMP components of the Constrained Long-Range Plan. Major topics to be addressed include the following:

- Identify alternative strategies for alleviating congestion and enhancing the mobility of persons and goods.
- Identify CMP performance measures, costs, benefits, and evaluation information.
- Compile and analyze information on transportation systems usage and congested locations.
- Examine the impact on congested locations of current and potential alternate strategies, and provide information on strategy prioritization.
- Compile information on CMP strategies considered by implementing agencies in conjunction with major SOV capacity-expanding projects.
- Update the CMP technical report in conjunction with the annual update of the CLRP.
- Coordinate CMP tasks with other UPWP and Commuter Connections Work Program tasks and advisory committees:
  - o Coordinate with the Travel Forecasting Subcommittee on the monitoring of recurring congestion as well as on alternatives analysis,
  - o Coordinate with the Commuter Connections Subcommittee on demand management considerations,
  - o Coordinate with the MOITS Policy Task Force and MOITS Technical Subcommittee on non-recurring congestion and incident management considerations, and
  - o Coordinate with the Regional Transportation Data Clearinghouse.
- Keep abreast of national, state, regional, and local requirements and issues.

**Oversight:** TPB Technical Committee

**Products:** CMP Report; summaries, outreach materials, and white paper(s) on technical issues as needed; data sets

**Schedule:** Monthly

B. MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PLANNING (\$350,000)

Under this work task, TPB will provide opportunities for coordination and collaborative enhancement of transportation technology and operations in the region, advised by its Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee. Major topics to be addressed include the following:

- **Metropolitan Area Transportation Operations Coordination (MATOC) Program** and Related Activities: Support member transportation agency efforts to strengthen regional coordination and communications on everyday conditions, management and major regional transportation incidents, particularly through the MATOC Program officially established in FY2007 under a SAFETEA-LU grant.
- **Emergency Coordination:** Facilitate links between everyday transportation operations planning and overall regional planning for emergencies, especially in coordination with the dedicated UPWP Emergency Preparedness Planning Task II.C.
- **Traveler Information:** Coordinate enhancement of the collection, processing, and public delivery of real-time roadway and transit condition information, including potential regional Internet-based and "511" telephone information systems and the University of Maryland's Regional Integrated Transportation Information System (RITIS) project.
- **Intelligent Transportation Systems (ITS) Architecture, and Transportation Technology Development and Application:** Maintain the regional ITS architecture in accordance with federal law and regulations; help provide coordination of the use of the regional ITS architecture as guidance to regional MOITS communications and technology project implementation; address regional ITS standards.
- **Traffic Signals:** Assist member agencies in the exchange and coordination of inter-jurisdictional traffic signal operations information and activities, including regional annual reporting of operations maintenance and improvement activities.
- **Non-Recurring Congestion:** Support regional efforts to monitor and analyze transportation systems conditions, particularly focusing on temporal variations

from average conditions, congestion due to incidents, and other non-recurring congestion.

- **Traffic and Transit: Coordination with the Regional Bus Planning** Task II.E. and the Regional Bus Subcommittee on planning and information exchange for traffic management, bus operations, and advanced technology.
- **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.
- **National issues:** Monitor national emerging MOITS activities for potential application in the region.

**Oversight:** TPB MOITS Policy Task Forces and MOITS Technical Subcommittee

**Products:** Agendas, minutes, summaries, outreach materials as needed; white paper(s) on technical issues as needed; revised regional ITS architecture; review and advice to MOITS planning activities around the region

**Schedule:** Bi-monthly

#### C. TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING (\$75,400)

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 will be 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.

Major topics to be addressed 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:
  - o emergency coordination and response planning through the emergency management and Homeland Security Urban Area Security Initiative (UASI) processes.
  - o Emergency communications, technical interoperability, and capabilities.
  - o Public outreach for emergency preparedness.
  - o Coordination with regional critical infrastructure protection and related security planning.
  - o Emergency preparedness training and exercises.
  - o Conformance with U.S. Department of Homeland Security (DHS) directives and requirements.
  - o Applications for and management of UASI and other federal Homeland Security funding.

**Oversight:** -TPB MOITS Policy Task Force and MOITS Technical Subcommittee  
 -COG Regional Emergency Support Function (RESF) #1 - Transportation Committee

**Products:** Agendas, minutes, summaries, outreach materials as needed; white paper(s) on technical issues as needed; regular briefings and reports to TPB and the MOITS Task Forces as necessary; materials responding to DHS and UASI requirements

**Schedule:** Monthly

D. TRANSPORTATION SAFETY PLANNING (\$100,000)

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. The safety element of the regional Constrained Long-Range Plan will be

developed. Major topics to be addressed include the following:

- Safety data compilation and analysis.
- 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:** TPB Technical Committee

**Products:** Safety element of the CLRP; summaries, outreach materials, and white paper(s) on technical issues as needed.

**Schedule:** Quarterly

E. BICYCLE AND PEDESTRIAN PLANNING (\$108,700)

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 adopted by the TPB in FY2007, 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 Web version of the regional bicycle and pedestrian plan. Update project listings in the Regional Bicycle and Pedestrian Plan, reflecting project completions, changes in supporting local plans, and update project cost estimates. Maintain this database on the TPB Web site for member agency and public access.
- Compile bicycle and pedestrian project recommendations for the FY 2010-2015 Transportation Improvement Program (TIP).
- Coordinate the annual "Street Smart" regional pedestrian and bicycle safety public outreach campaign:
  - Coordinate receipt of voluntary funding from member agencies and other interested parties and applicable federal transportation safety funds provided through the District of Columbia, Maryland, and Virginia.

- Development of campaign materials in conjunction with a Street Smart advisory committee and consultants; apply lessons learned from previous campaigns.
  - Coordinate implementation of the sixth annual campaign, funded with voluntary contributions, with a target date of April 2009.
  - With the consultant, coordinate post-campaign reporting and evaluation.
- **Transportation Safety:** 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.
  - **Bicycle and Pedestrian Systems Usage Information:** Examine regional data needs for bicycle and pedestrian planning, and ensure their consideration in the overall metropolitan transportation planning process.
  - Provide the public with information on the status of bicycle and pedestrian facilities planning and construction in the Washington region.
  - Monitor and provide advice on the implementation of regional bicycle and pedestrian programs, including the Employer Outreach for Bicycles Transportation Emissions Reduction Measure (TERM) 70b, implementation of bicycle and pedestrian components of the green space and circulation system projects developed under the Transportation and Community and Systems Preservation (TCSP) Pilot Program grant, and other programs as necessary.
  - 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.
  - Fund Phase II of the planning and implementation of a bicycle route-finding web site for the region.

**Oversight:** Regional Bicycle and Pedestrian Subcommittee

**Products:** Compilation of bicycle and pedestrian facilities for the FY2010-2015 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 (\$100,000)

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 major topics to be addressed included the following:

- Continued review and refinement of the recommendations of the Regional Bus Study completed in 2002, and development of a priority list of near term service implementation strategies for inclusion in annual operations budgets.
- Coordination and evaluation of CLRP and TIP proposals and amendments with regard to bus transit service plan implementation.
- Coordination and input definition for the TPB regional travel forecasting model.
- 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.
- 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 associated regional transit operators group.
- 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 Committee to enhance regional mobility for all populations.

**Oversight:** TPB Regional Bus Subcommittee

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

**Schedule:** Monthly

G. HUMAN SERVICE TRANSPORTATION COORDINATION (\$105,000)

In 2007 the TPB adopted the Human Service Transportation Coordination Plan for the

Washington Region which includes priorities and projects for the following three 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). SAFETEA-LU regulations require that the CLRP and TIP shall consider the design and delivery of non-emergency transportation services.

Proposed work activities include:

- Under the guidance of the TPB Human Service Transportation Coordination Task Force, review how the coordination plan was utilized in FY2008 by sponsors to fund projects for the three FTA programs, and identify recommended plan changes and revisions.
- Coordinate the activities of the coordination task force with the TPB Access For All Advisory Committee and the COG Human Services Committee to continue to involve leaders of low- income, minority and disabled community groups.
- Continue to review the implementation of improvements to Metro Access service as identified in the February 2006 TPB study: “Improving Demand Responsive Services for People with Disabilities in the Washington Region.”

**Oversight:** Technical Committee and TPB Access For all Advisory Committee

**Products:** An updated human service transportation coordination plan

**Schedule:** June 2009

#### H. FREIGHT PLANNING (\$101,000)

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. Major topics to be addressed include the following:

- Support the Regional Freight Planning Subcommittee
- Ensure consideration of freight planning issues in overall metropolitan transportation planning, including:
  - o Follow up on findings and recommendations from the FY 2007 Regional Freight Planning Study.
  - o 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.

- o Advise the TPB and other committees in general on regional freight planning considerations for overall metropolitan transportation planning.
  - o Obtain expert input on freight considerations for metropolitan transportation planning.
  - o Coordinate with federal, state, and local freight planning activities.
  - o Coordinate with TPB travel monitoring and forecasting activities on freight considerations.
  - o Examine truck safety issues.
  - o 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 Technical Committee

**Products:** Data compilation and outreach materials as needed; white paper(s) on technical issues as needed; structured interviews and summarized results

**Schedule:** Quarterly

### 3. FORECASTING APPLICATIONS

#### A. AIR QUALITY CONFORMITY (\$563,200)

- Complete conformity analysis of 2008 CLRP and FY 2009 - 2014 TIP, using latest travel demand and emissions models, to address 1-hour and 8-hour ozone, carbon monoxide and PM2.5 requirements.
- Execute public and interagency consultation procedures including interaction with MWAQC and air quality agencies.
- Prepare and execute a work program for analysis of the 2009 amendments to the CLRP and the FY2010-2015 TIP.
- Coordinate emissions reduction analyses associated with new, as well as previously implemented, transportation emissions reduction measures (TERMs) and CMAQ-funded projects; work with programming agencies to develop and finalize additional TERMS, if needed.
- Perform incidental (non-systems level) air quality reviews of plan and TIP amendments, as required throughout the year.
- Perform incidental (non-systems level) reviews of hot spot analyses, as requested by implementing agencies, throughout the year.
- Provide funding to COG's Department of Environmental Programs (DEP) to support review and comment on conformity analysis.

**Oversight:** Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees

**Products:** Final report on 2008 CLRP and FY 2009 - 2014 TIP Air Quality Conformity assessment; Work program for 2009 CLRP and FY2010 - 2015 TIP Conformity assessment

**Schedule:** June 2009

#### B. MOBILE EMISSIONS ANALYSIS (\$640,100)

- Obtain motor vehicle registration data as of July 1, 2008 from the District of Columbia, Maryland and Virginia, apply 'VIN decoder' software to read vehicle characteristics, and prepare vehicle type and age distribution files for updated inputs to EPA's Mobile model.

- Refine, as needed, mobile source emissions inventories, and respond to follow-up work requests regarding control strategies, policy or implementation issues, associated with ozone and PM2.5 SIPs.
- Refine existing analysis methods to incorporate additional greenhouse gases beyond carbon dioxide for climate change studies.
- Prepare additional mobile source emissions (annual) inventories, as needed, for use in analysis of climate change, and refine existing inventories as needed to reflect updated travel demand and emissions factors, and the additional greenhouse gases referenced above.
- Analyze new transportation emissions reduction measures (TERMs), as well as examine previous proposals, and evaluate their effectiveness and cost-effectiveness in reducing emissions for SIP and air quality conformity purposes.
- Participate in state and MWAQC technical and policy discussions, public forums and hearings.
- For the above work elements, in conjunction with DTP staff and in consultation with the TPB, provide funding to COG's Department of Environmental Programs for the following activities: (1) provision of data, progress reports and written reports in response to TPB requests relating to air quality work activities; (2) provision of timely updates to the TPB and its committees on the status of emissions and emissions reduction research / implementation strategies associated with all emissions source categories; and (3) provision of assistance and review to TPB in development of emissions factors required for mobile source emissions inventories associated with air quality conformity and SIP planning.
- Continue testing of the Motor Vehicle Emissions Simulator (MOVES) model, EPA's 'next generation' emissions factor model, designed to replace the Mobile model which has been used for decades in SIP and air quality conformity analyses.
- Provide support to Commuter Connections staff in developing implementation plans for adopted, as well as future, TERMS adopted by the TPB.

**Oversight:** Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees

**Products:** Report on TERM evaluation; mobile source emissions inventories as required to address ozone and PM2.5 standards and climate change requirements

**Schedule:** June 2009

C. REGIONAL STUDIES (\$315,800)

Regional Mobility and Accessibility Scenario Study

In September 2007, the TPB Scenario Study Task Force was established to provide policy-level stewardship for this study and related TPB activities, including consideration of opportunities for integration of the study findings into TPB planning processes and initiatives. Under the guidance of the task force in the second half of FY 2008, two new scenarios are to be developed drawing upon the individual strategies reflected in the existing scenarios, including the variably-priced lane scenarios and/or additional strategies.

The following activities are proposed for FY 2009:

- analyze the two new transportation and land use scenarios developed in the last half of FY 2008 using transportation-related indicators as well as quality-of-life indicators.
- “Drill-down” to the community and project level within the new scenarios to assess local level travel impacts and help identify where land use shifts are particularly crucial and transportation improvements may need to be focused.
- Develop methods to better visualize and communicate the features and the impacts of the new transportation and land use scenarios and incorporate them into public outreach materials. These outreach materials will draw upon the implementation “toolkit” developed under the TLC Program to address key challenges such as maintaining affordable housing in developing activity centers and addressing the different perspectives on density and congestion at the local and regional levels.
- Conduct public outreach designed to inform possible implementation of regional strategies.
- Prepare report on public feedback on the scenarios and recommendations for incorporating scenario planning activities into the regional planning process.

**Oversight:** TPB Scenario Study Task Force

**Products:** Analysis of two new regional scenarios, analysis of local level impacts, enhanced visualization techniques and public outreach materials, report on public

feedback on scenarios

**Schedule:**

December 2008 - Analyses of two new regional scenarios local level impacts, enhanced visualization techniques and public outreach materials

June 2009 - Conduct public outreach and prepare report

D. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING PROCESSES (\$676,800)

- Support the Metropolitan Development Policy Committee (MDPC) and 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.
- Enhance planning databases and analytical tools to support regional planning goals and strategies and goals including the update and refinement of regional activity center maps and supporting data, the update of the Transportation Analysis Zone (TAZ)-level employment and housing data and the "Composite Map of adopted Land Use Plans".
- Update and maintain Cooperative Forecasting land activity databases that are used as input into TPB travel demand-forecasting model. Prepare Round 7.2 population, household, and employment forecasts for both COG member and non-member jurisdictions in the expanded cordon area and preparation of Cooperative Forecasting TAZ-level land activity data files. The Round 7.2 forecasts will be the current 2191-TAZ system.
- 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 Round 7.2 forecasts and the Cooperative Forecasting process.
- Work with Cooperative Forecasting Subcommittee to update the structure of the regional econometric model used to develop the top-down regional benchmark projections for the COG Cooperative Forecasting process. This updated structure would extend the geography for the econometric model from the 1983 MSA to the 2003 MSA and switch the industry level detail of this model from the old Standard Industrial Classification (SIC) system to the new North American Standard

Industrial Classification (NASIC) system. This updated model would then be used to provide new top-down regional Round 8.0 benchmark projections for the 2005 to 2040 time period in early FY 2010.

- Concurrent with the update of the regional econometric model, work with the Cooperative Forecasting Subcommittee, the region's Planning Directors, and members of the TPB Technical Committee to develop the needed area land activity for the new, smaller, more refined Transportation Analysis Zones (TAZs) and Regional Activity Centers and Clusters developed in FY 2008. The goal of this effort would be to enable local jurisdictions to prepare local bottoms-up Round 8.0 forecasts for the new TAZ system in early FY 2010.
- Develop and publish useful economic, demographic and housing-related information products including the monthly Regional Economic Monitoring Reports (REMS) reports and the annual "Economic Trends in Metropolitan Washington" and "Commercial Development Indicators" reports.

**Oversight:** Technical Committee

**Products:** Coordination of Land Use and Transportation Planning in the Region, Update of Regional Planning Databases, Development and Distribution information and technical reports.

**Schedule:** June 2009

## 4. DEVELOPMENT OF NETWORKS AND MODELS

### A. NETWORK DEVELOPMENT (\$769,700)

- FY 2009 efforts will focus on the development of TP+ highway and transit networks that support the Version 2.3 model on the expanded cordon using information gathered electronically and/or in paper format. This process will make use of available information in COG's GIS and the Data Clearinghouse to facilitate development of networks supporting 1) air quality conformity analysis and 2) scenario testing as part of TPB regional studies.
- Activities in FY2009 will begin with the compilation of the latest available transit route and schedule information (from the above sources) in the peak and off-peak formats required for the travel demand models. All traffic count data will be converted to AAWDT format for use in highway networks required for these models. A set of TP+ networks for highway and transit will be coded from this information depicting current year conditions.
- Using these networks as a starting point, a series of FY2010-2015 TIP and Plan Conformity networks will be developed for the following analysis years: 2009, 2010, 2020, and 2030 and other years as specified in upcoming federal guidance. Tasks involved are as follows:
  - receive and organize project inputs to the FY2010-2015 TIP and amended CLRP;
  - code, edit, and finalize networks for highway, HOV, and transit;
  - develop transit fare matrices consistent with these networks; and
  - provide documentation and training in the development of these highway and transit networks.
- Demands have been increasing on the network development program, from coding more complex transit networks to coding new high occupancy toll (HOT) lane facilities. To enhance network coding procedures and to better manage the myriad of highway and transit networks that need to be developed, a consultant was retained in FY2008 to upgrade current highway and transit network development processes. The consultant in FY2009 will assist staff in implementing recommendations for improving network coding efficiency and data quality/consistency.

**Oversight:** Travel Forecasting Subcommittee

**Products:** Series of updated transportation networks by mode, including technical training and documentation

**Schedule:** June 2009

B. GIS TECHNICAL SUPPORT (\$498,800)

- 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.
- Enhance the methodology for "seamless" editing of regional highway and transit networks by implementing consultant recommendations on "Improving GIS-Based Applications and Protocols to Develop and Manage Transportation Networks."
- Provide ongoing maintenance of existing GIS network editing tools and develop new tools for the editing of highway, transit and HOV networks.
- Implement GIS Spatial Data Library restructuring that will include both transportation and non-transportation mapping features.
- Train staff on use of GIS databases for transportation planning.
- Support on-line and other access to COG/TPB GIS metadata, databases, and applications via COG's website.
- Continue to coordinate the regional GIS activities with state DOTs, WMATA, and the local governments through COG's GIS Committee and subcommittees.
- Add additional transportation and land use databases to the COG/TPB GIS.
- Maintain and update COG/TPB's GIS-related hardware and software.

**Oversight:** Technical Committee

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

**Schedule:** June 2009

C. MODELS DEVELOPMENT (\$1,071,200)

A Transportation Research Board (TRB) committee has completed a report documenting a national survey of MPO state-of-the-practice with respect to regional travel demand modeling. This document will set the stage for an on-going multi-year program to improve the TPB travel demand models.

Having completed the development of a nested logit mode choice model as well as new truck models, the FY2009 effort will focus on the following:

- Continuing sensitivity testing and evaluation of the Version 2.3 travel demand model that was released in draft during FY2008, with refinements to be made as necessary;
- Continuing the TPB's ongoing scan of best modeling practices across the U.S. through use of a consultant task order contract;
- Retaining a consultant to facilitate the development of advanced travel forecasting methods (tour based/activity based), allowing TPB to incrementally phase in these new methods;
- Developing calibration files from the new Household Travel Survey, Metrorail Survey, and regional on-board bus survey for use in models development;
- Refreshing the existing airport travel demand forecasts using the latest air passenger survey and continuing to monitor approaches for a more formal airport access demand model, incorporating mode choice; and
- Continuing participation on a national MPO panel established to recommend practices in travel demand modeling.

Staff will continue to review best practice in travel demand modeling through participation in the Transportation Research Board and literature reviews. Staff will provide documentation for all products from the models development program.

**Oversight:** Travel Forecasting Subcommittee

**Products:** Recommendations for continued updating of the travel demand modeling process, documentation of all activities

**Schedule:** June 2009

D. SOFTWARE SUPPORT (\$ 178,900)

- Support execution of CUBE/ TP+ software and enhancements as appropriate in the running of DTP travel demand forecasting applications.
- Support execution of the Mobile6.2 Mobile Source Emissions Factor Model and supporting software and examination of the Demonstration Version of the Highway Vehicle Implementation of the Motor Vehicle Emissions Simulator (MOVES-HVI).
- Provide appropriate training to DTP staff in application of CUBE/TP+ and enhancements as appropriate and Mobile6.2 and supporting software.
- Monitor development and application of travel demand model sets in use in corridor studies and other MPO's.
- Monitor the development and performance of other travel demand forecasting software packages operating under Microsoft Windows and other systems.
- Monitor the performance of DTP desktop and laptop microcomputer hardware and software and make recommendations to DTP senior staff concerning utilization, acquisitions, and upgrades as appropriate. Coordinate with the COG Office of Technology Programs and Services (OTPS) staff in this task and in the solution of any problems which may arise under the Microsoft Windows operating system.
- Monitor the development and operation of various systems for the back-up and archiving of microcomputer hard drives and transfer of data. Provide training to DTP staff in the use of those systems adopted for staff use. Obtain and test other new systems that show significant promise in meeting DTP staff needs.
- Support development and execution of applications of text editor and scripting software.
- Support development and execution of applications of micro simulation software as appropriate.
- Organize, manage and staff bi-monthly meetings of DTP staff to discuss software and software applications.

**Oversight:** Technical Committee.

**Products:** Operational travel demand forecasting process ( CUBE/TP+ travel demand software) plus operational Mobile6.2 Model. File transfer, storage and retrieval processes. DTP staff training in CUBE/TP+ and Mobile6.2 systems.

Upgraded desktop and laptop microcomputer hardware to support CUBE/TP+, Mobile 6.2 and other operations.

**Schedule:** June 2009.

## 5. TRAVEL MONITORING

### A. CORDON COUNTS (\$230,000)

In the spring of 2009, staff will conduct the Central Employment Area Cordon Count.

**Oversight:** Travel Forecasting Subcommittee

**Products:** Data files from the Spring 2009 Central Employment Area Cordon Count for processing to produce a report in FY 2010

**Schedule:** June 2009 (data files; report in FY 2010)

### B. CONGESTION MONITORING AND ANALYSIS (\$ 521,200)

- Analyze peak period aerial survey data collected during FY 2008; compare findings with similar surveys conducted since Spring 1993 and present the findings in a final report.
- Conduct off-peak and PM peak period arterial highway travel time survey, analyze data and prepare a final report documenting the findings.
- Using volunteer drivers from state and local government agencies augment the traditional arterial congestion monitoring program by collecting data on additional routes.

**Oversight:** Travel Forecasting Subcommittee

**Products:** Peak Period System Performance of the Freeway System in the Metropolitan Washington Region (Fall 2008).  
FY 2009 Arterial Highway System Performance

**Schedule:** June 2009

### C. TRAVEL SURVEYS AND ANALYSIS

#### Household Travel Survey (\$500,000)

- Complete the processing, editing, geocoding and tabulation of data collected in the 2007 Regional Household Travel Survey for the TPB modeled area.
- Develop and apply survey weighting factors to expand survey results to population totals for the TPB modeled area.
- Analyze results of the non-respondent follow-up survey and GPS add-on components of the 2007 Regional Household Travel Survey to determine the need for adjustment factors to account for non-response bias and vehicle trip under-reporting.
- Validate survey results with the Census American Community Survey (ACS), the 2007 WMATA rail passenger survey, the 2008 Regional Bus Survey, WMATA and local jurisdiction transit ridership statistics, HPMS estimates of vehicle travel, Regional Data Clearinghouse traffic volume estimates and other available data sources.
- Develop and apply trip linking procedures to the 2007 Regional Household Survey and prepare a final factored survey trip file with technical documentation.
- Coordinate the processing and factoring of the 2007 Regional Household Travel Survey with Baltimore Metropolitan Council staff.
- Prepare a technical report documenting the results and processing of the 2007 regional household travel survey.

**Oversight:** Travel Forecasting Subcommittee

**Product:** Geocoded and Edited Travel Survey Data, Final Factored Survey Trip File, Technical Report and Documentation

**Schedule:** June 2009

#### D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE (\$267,900)

- Collect and process additional traffic volume data for an enhanced Highway Performance Monitoring System (HPMS) sample for the metropolitan Washington region.
- Prepare a technical report showing the year-to-year change in regional annual average daily and weekday vehicle miles of travel (VMT) and traffic volumes on

major segment of the regional highway network based on the enhanced HPMS sample for the TPB modeled area.

- Update Clearinghouse data files with FY07-08 highway and transit network data.
- Update Clearinghouse traffic volume data with AADT 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 updated Cooperative Forecasting data to the Clearinghouse by TAZ.
- Update Regional Clearinghouse user manuals and documentation.
- Provide maps, hard copy tabular data and technical support to state and local agency staff to assist in a technical review of updated Clearinghouse data.
- Distribute updated Clearinghouse database and documentation to TPB participating agencies.

**Oversight:** Technical Committee

**Product:** Technical Report on Change in Annual Average Vehicle Miles of Travel; Updated Clearinghouse Database and Documentation;

**Schedule:** June 2009

## **6. TECHNICAL ASSISTANCE (\$1,514,600)**

The funding level allocated to technical assistance is 15 percent of the total new FY 2009 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.