

**ITEM 10 - Action**  
March 16, 2011

Approval of FY 2012 Unified Planning Work Program (UPWP)

**Staff**

**Recommendation:** Receive briefing on the final UPWP for FY 2012 (July 1, 2011 through June 30, 2012) and adopt Resolution R13-2011 to approve it.

**Issues:** None

**Background:** The TPB was briefed on the draft of the work program at the February 16 meeting and on the outline and budget at the January 20, 2011 meeting.

The draft FY 2012 UPWP was released for public comment on February 10. The Technical Committee reviewed the outline and budget on January 7 and reviewed the draft document on February 4. On March 4, the Technical Committee reviewed the proposed carryover activities and budgets from FY 2011 and recommended approval of the FY 2012 UPWP and the FY 2011 carryover activities and budgets by the TPB.

TPB R13-2011  
March 16, 2011

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD  
777 NORTH CAPITOL STREET, N.E.  
WASHINGTON, D.C. 20002-4201**

**RESOLUTION APPROVING THE FY 2012 UNIFIED PLANNING WORK PROGRAM  
FOR TRANSPORTATION PLANNING**

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

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

**WHEREAS**, the FY 2011 Unified Planning Work Program (UPWP) for Transportation Planning for the Washington Metropolitan Region was approved by the Transportation Planning Board (TPB) on March 17, 2010; and

**WHEREAS**, on February 10, 2011, the TPB released the draft FY 2012 UPWP for public comment; and

**WHEREAS**, the TPB Technical Committee reviewed the outline and budget on January 7, 2011 and the draft document on February 4, and recommended approval by the TPB of the final draft FY 2012 UPWP at its meeting on March 4; and

**WHEREAS**, on March 16, 2011, the TPB adopted resolution R12-2011 which identifies certain projects for carryover funding from FY 2011 to FY 2012, and these projects and budgets will be incorporated into the final version of the FY 2012 UPWP;

**NOW, THEREFORE, BE IT RESOLVED THAT** the National Capital Region Transportation Planning Board approves the FY 2012 Unified Planning Work Program for Transportation Planning for the Metropolitan Washington Region.

**NATIONAL CAPITAL REGION  
TRANSPORTATION PLANNING BOARD**

**FY 2012**

**UNIFIED PLANNING WORK PROGRAM  
FOR TRANSPORTATION PLANNING  
FOR THE  
WASHINGTON METROPOLITAN REGION**

**DRAFT**

**March 16, 2011**

The preparation of this program was financially aided through grants from the District of Columbia Department of Transportation; Maryland Department of Transportation; Virginia Department of Transportation; U.S. Department of Transportation, Federal Highway Administration; and the U.S. Department of Transportation, Federal Transit Administration, under the Federal Transit Act.



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## I. INTRODUCTION

### Purpose

The **FY 2011 Unified Planning Work Program (UPWP) for Transportation Planning for the Washington Metropolitan Region** incorporates in one document all federally assisted state, regional, and local transportation planning activities proposed to be undertaken in the region from July 1, 2010 through June 30, 2011. The UPWP provides a mechanism for the coordination of transportation planning activities in the region, and is required as a basis and condition for all federal funding assistance for transportation planning by the joint planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

This work program describes all transportation planning activities utilizing federal funding, including Title I Section 112 metropolitan planning funds, Title III Section 5303 metropolitan planning funds, and Federal Aviation Administration Continuing Airport System Planning (CASP) funds. It identifies state and local matching dollars for these federal planning programs, as well as other closely related planning projects utilizing state and local funds.

### Planning Requirements

The planning activities outlined in this work program respond to a variety of regulatory requirements. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Clean Air Act Amendments of 1990 (CAAA) created a number of new planning requirements. The Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), which became law on August 11, 2005, reaffirms the structure of the metropolitan planning process, and increases federal financial support for it. Most of the modifications to the process are aimed at streamlining and strengthening the provisions included in ISTEA in 1991 and the Transportation Equity Act for 21st Century (TEA-21) of 1998. On February 14, 2007, the FHWA and FTA issued final regulations regarding metropolitan planning in response to SAFETEA-LU. This work program has been developed to comply with these regulations regarding metropolitan planning.

On September 21, 1994, the National Capital Region Transportation Planning Board (TPB) adopted the initial financially-constrained Long Range Transportation Plan for the National Capital Region (CLRP) as required by the final regulations. On September 30, 1996, FHWA and FTA issued a joint "Certification Review" of the TPB planning process and found that "the metropolitan planning process fully meets all the requirements of the October 28, 1993 Federal metropolitan planning regulations, 23 CFR Part 450, Subpart C." On July 15, 1998 the TPB approved the document: *1997 Update to the Financially Constrained Long Range Transportation Plan for the National Capital Region*, which summarized the first three-year update to the 1994 plan. On January 19, 2000, FHWA and FTA presented their final Certification Report on the TPB planning process and found that "the metropolitan planning process fully meets all the requirements of the October 28, 1993 Federal metropolitan planning regulations, 23 CFR Part 450, Subpart C." On October 18, 2000 the TPB approved the *2000 Financially Constrained Long Range Transportation Plan for the National Capital Region*, which was the second three-year update to the CLRP. On June 9, 2003, FHWA and FTA found that "the metropolitan planning process fully meets all the requirements of the

October 28, 1993 Federal metropolitan planning regulations, 23 CFR Part 450, Subpart C." On December 17, 2003, the TPB approved the *2003 Financially Constrained Long Range Transportation Plan for the National Capital Region*, which was the third three-year update to the CLRP. On March 27, 2006, FHWA and FTA transmitted their final Certification Report on the TPB planning process which found that " the metropolitan planning process fully meets all the requirements of the Metropolitan Planning Rule at 23 CFR Part 450, Subpart C and 49 CFR Part 613." On October 18, 2006, the TPB approved the *2006 Financially Constrained Long Range Transportation Plan for the National Capital Region*, which was the fourth three-year update to the CLRP. On November 17, 2010, the TPB approved the *2010 Financially Constrained Long Range Transportation Plan for the National Capital Region*, which is the fifth update to the CLRP.

The Clean Air Act Amendments (CAAA) of 1990 requires that the transportation actions and projects in the CLRP and Transportation Improvement Program (TIP) support the attainment of federal health standards for ozone. The CLRP and TIP have to meet specific requirements as specified by the Environmental Protection Agency (EPA) regulations issued on November 24, 1993, with amendments on August 15, 1997 and supplemental guidance on May 14, 1999, regarding criteria and procedures for determining air quality conformity of transportation plans, programs and projects funded or approved by the FHWA and FTA. These conformity requirements are also addressed in this document.

## **Regional Planning Goals**

In 1998, the TPB adopted a set of policy goals that have since served to guide its planning work program. These goals are:

- The Washington metropolitan region's transportation system will provide reasonable access at reasonable cost to everyone in the region.
- The Washington metropolitan region will develop, implement, and maintain an interconnected transportation system that enhances quality of life and promotes a strong and growing economy throughout the entire region, including a healthy regional core and dynamic regional activity centers with a mix of jobs, housing, services and recreation in a walkable environment.
- The Washington metropolitan region's transportation system will give priority to management, performance, maintenance, and safety of all modes and facilities.
- The Washington metropolitan region will use the best available technology to maximize system effectiveness.
- The Washington metropolitan region will plan and develop a transportation system that enhances and protects the region's natural environmental quality, cultural and historic resources, and communities.
- The Washington metropolitan region will achieve better inter- jurisdictional coordination of transportation and land use planning.
- The Washington metropolitan region will achieve enhanced funding mechanisms for regional and local transportation system priorities that cannot be implemented with current and forecasted federal, state, and local funding.
- The Washington metropolitan region will support options for international and inter-regional travel and commerce.



Known as the TPB Vision, these goals are broad in scope, and also encompass a variety of strategies and objectives. Together, these goals, strategies, and objectives provide a framework for setting out core principles for regional transportation planning. The eight federal planning factors are encompassed by the TPB Vision's policy goals and are considered when developing the CLRP. Each planning factor is included in one or more of the TPB Vision goals, objectives and strategies, except for security, which is implicitly addressed in the TPB Vision.

### **Addressing Changing Planning Priorities**

In addition to regulatory requirements and regional goals, new factors emerge every year that influence the planning process and supporting activities outlined in this work program. Changing federal policy initiatives is one such factor. Since June of 2009, the federal government has made available competitive funding that encourages and rewards coordination in regional planning efforts, particularly for programs that provide increased transportation options, improve access to affordable housing lower transportation costs, and protect the environment. Most of these competitive funding opportunities stem from the Federal Livability Initiative, which is represented in part by a federal interagency partnership between the United States Department of Transportation (DOT), Department of Housing and Urban Development (HUD), the Environmental Protection Agency (EPA), among other agencies. Many of the long-standing TPB planning activities to date have been consistent with the principles embodied by the Federal Livability Initiative. As a result, the TPB is able to respond to funding opportunities based upon the work it has been conducting over the past few years. The applications that the TPB submitted for DOT TIGER I and II competitive grants are examples of the TPB's ability to respond to federal funding opportunities. In February 2010, the TPB was awarded \$58.8 million for a regional priority bus network under the TIGER I program. In August 2010, the TPB applied for funding towards a regional bike-sharing project under TIGER II. Although this application was not awarded, it was named in the top ten percent of projects that were recommended to be advanced for funding by DOT staff.

The TPB is also positioned to support transportation components of more comprehensive federal funding opportunities. As an example, the TPB in 2010 collaborated with the Metropolitan Washington Council of Governments (COG) Department of Housing and Community Planning on a competitive grant submission to the HUD Sustainable Communities Planning Grant program. This grant submission outlined the strategy COG would employ to establish a regional plan for sustainable development. Though the grant was not awarded, COG continues to work on developing regional plan for sustainable development as an extension of its existing efforts to solve key challenges in the region through its Region Forward campaign. Region Forward is supported by a voluntary compact signed by all of the COG member jurisdictions, and outlines a series of targets and indicators that measure progress towards creating and attaining a more accessible, sustainable, prosperous, and livable future. The TPB is positioned to work alongside COG to integrate and coordinate transportation planning in support of Region Forward.

Through future federal opportunities are uncertain, TPB is uniquely positioned to respond to emerging policy themes as they arise. Some of these recently-articulated themes include a renewed emphasis on high-speed rail, and investing in infrastructure through alternative

funding sources. As an example of the TPB's ability to incorporate policy themes into its planning activities, the TPB in 2010 was awarded a grant from the Federal Highway Administration to study public acceptability of road-use pricing. Working jointly with The Brookings Institution, the TPB will in FY2011 evaluate public acceptance of value-pricing through analyzing survey data, scenario planning, and conducting focus groups and deliberative forms.

In addition to the changing federal context, other factors that influence activities in this work plan are regional in scope. In response to a request from the TPB Citizens Advisory Committee, the TPB in May 2010 held a forum that engaged over 80 elected officials, technical staff, and members of the public in an interactive conversation on setting regional transportation priorities. In September 2010, the TPB established a task force to determine a scope and process for developing a regional transportation priorities plan that will enhance the implementation of regional priorities. In Spring 2011, the TPB will approve the scope that will guide this plan development process as specified in FY2012 and FY2013 UPWPs.

Regional and federal factors that are non-regulatory may evolve from one year to the next, but are nonetheless influential in the planning activities that are conducted and described in this work program. As these factors continue to evolve, the UPWP is adjusted annually to focus on new and emerging priorities. This UPWP builds upon the previous UPWP, and is the result of close cooperation among the transportation agencies in the region. This UPWP was prepared with the involvement of these agencies, acting through the TPB, the TPB Technical Committee and its subcommittees. This UPWP details the planning activities that must be accomplished to address the annual planning requirements such as preparing the TIP and a Congestion Management System. It also describes the tasks required to meet the approval dates for the region's CLRP and the TIPs, and outlines the activities for the subsequent years.

## **Responsibilities for Transportation Planning**

The National Capital Region Transportation Planning Board (TPB) is the organization responsible for conducting the continuing, cooperative, comprehensive (3-C) transportation planning process for the Metropolitan Washington Region in accordance with requirements of Section 134 (Title 23 U.S.C) of the Federal Highway Act of 1962, and Section 8 of the Federal Transit Act. The TPB is the official Metropolitan Planning Organization (MPO) for transportation planning for the Washington metropolitan region, designated by the Governors of Maryland and Virginia and the Mayor of the District of Columbia, under Section 134 of the Federal Aid Highway Act, and the Joint Planning regulations of FTA and FHWA.

The TPB is composed of representatives from the 19 cities and counties, including the District of Columbia, that are members of the Metropolitan Washington Council of Governments (COG), the City of Manassas, the St. Charles Urbanized Area of Charles County, the two state and the District transportation agencies, the Washington Metropolitan Area Transit Authority (WMATA), the Metropolitan Washington Airports Authority (MWAA), four federal agencies, the General Assemblies of Maryland and Virginia, and private transportation service providers. When matters of particular importance are before the TPB, a special voting procedure may be invoked that weights the votes of local jurisdiction members according to population.

Figure 1 lists the organizations represented on the TPB and its Technical Committees. Figure 2 shows the geographical location of each of the participating local jurisdictions. The TPB also serves as the transportation policy committee of COG. This relationship serves to ensure that transportation planning is integrated with comprehensive metropolitan planning and development, and is responsive to the needs of the local governments in the area.

Policy coordination of regional highway, transit, bicycle, pedestrian and intermodal planning is the responsibility of the TPB. This coordinated planning is supported by the three departments of transportation (DOTs), FTA, FHWA, and the member governments of COG. The TPB coordinates, reviews, and approves work programs for all proposed federally assisted technical studies as part of the UPWP. The relationship among land use, environmental and transportation planning for the area is established through the continuing, coordinated land-use, environmental and transportation planning work programs of COG and TPB. Policy coordination of land use and transportation planning is the responsibility of COG, through its Metropolitan Development Policy Committee (MDPC) and the Transportation Planning Board. COG's regional land use cooperative forecasts are consistent with the adopted regional Long Range Transportation Plan.

The chairman of the TPB and the state transportation directors are members of the Metropolitan Washington Air Quality Committee (MWAQC), which was formed under the authority of the governors of Maryland and Virginia, and the mayor of the District of Columbia to recommend the region's air quality plans. These recommendations will be forwarded to the governors and mayor for inclusion in the State Implementation Plans (SIPs) they submit to EPA.

In the Washington Metropolitan region, the roles and responsibilities involving the TPB, the three state DOTs, the local government transportation agencies, WMATA, and the local government public transportation operators for cooperatively carrying out state transportation planning and programming have been established over several years. As required under the final planning regulations, the TPB, the state DOTs and the public transportation operators have documented their transportation planning roles and responsibilities in the Washington Metropolitan Region in a Memorandum of Understanding (MOU) that was executed by all parties on January 16, 2008. The MOU is included in the Appendix and the responsibilities for the primary planning and programming activities are indicated in Figure 3.

Also in the Appendix is an agreement involving the TPB and Charles and Calvert counties in Maryland regarding consistency and conformity of their plans, programs and projects is included in the UPWP. Also included is an agreement between the TPB and the Fredericksburg Area MPO (FAMPO) in Virginia which identifies the roles and responsibilities for cooperatively conducting the planning and programming process in the FAMPO portion of the Metropolitan Washington Urbanized Area.

## **FY 2012 Regional Planning Priorities**

During FY 2012, a regional planning priority will be to continue to focus on the coordination between land use and transportation planning and to complete the first year of a two-year process to develop a regional transportation priorities plan that will enhance the

implementation of regional priorities. Planning activities will continue for bus priority corridor improvements to complement those being implemented under the TIGER grant. The TPB public participation process and technical planning procedures will also continue to be strengthened. In addition to these activities directly involving the TPB, a number of corridor studies and other planning studies and programs are underway throughout the region (see Figure 4).

## Figure 1

### ORGANIZATIONS REPRESENTED ON THE TPB AND/OR ITS TECHNICAL COMMITTEES

#### VIRGINIA

Arlington County	Northern Virginia Regional Commission
Fairfax County	Northern Virginia Transportation Commission
Loudoun County	Virginia Department of Transportation
Prince William County	Virginia Department of Rail and Public Transportation
City of Alexandria	Virginia Department of Aviation
City of Fairfax	Virginia General Assembly
City of Falls Church	Potomac and Rappahannock Transportation Commission
City of Manassas	
City of Manassas Park	
Northern Virginia Transportation Authority	

#### MARYLAND

Frederick County	City of Greenbelt
Montgomery County	City of Rockville
Prince George's County	City of Takoma Park
St. Charles Urbanized Area of Charles Co	The Maryland-National Capital Park and Planning Commission
City of Bowie	Maryland Department of Transportation
City of College Park	Maryland General Assembly
City of Frederick	
City of Gaithersburg	

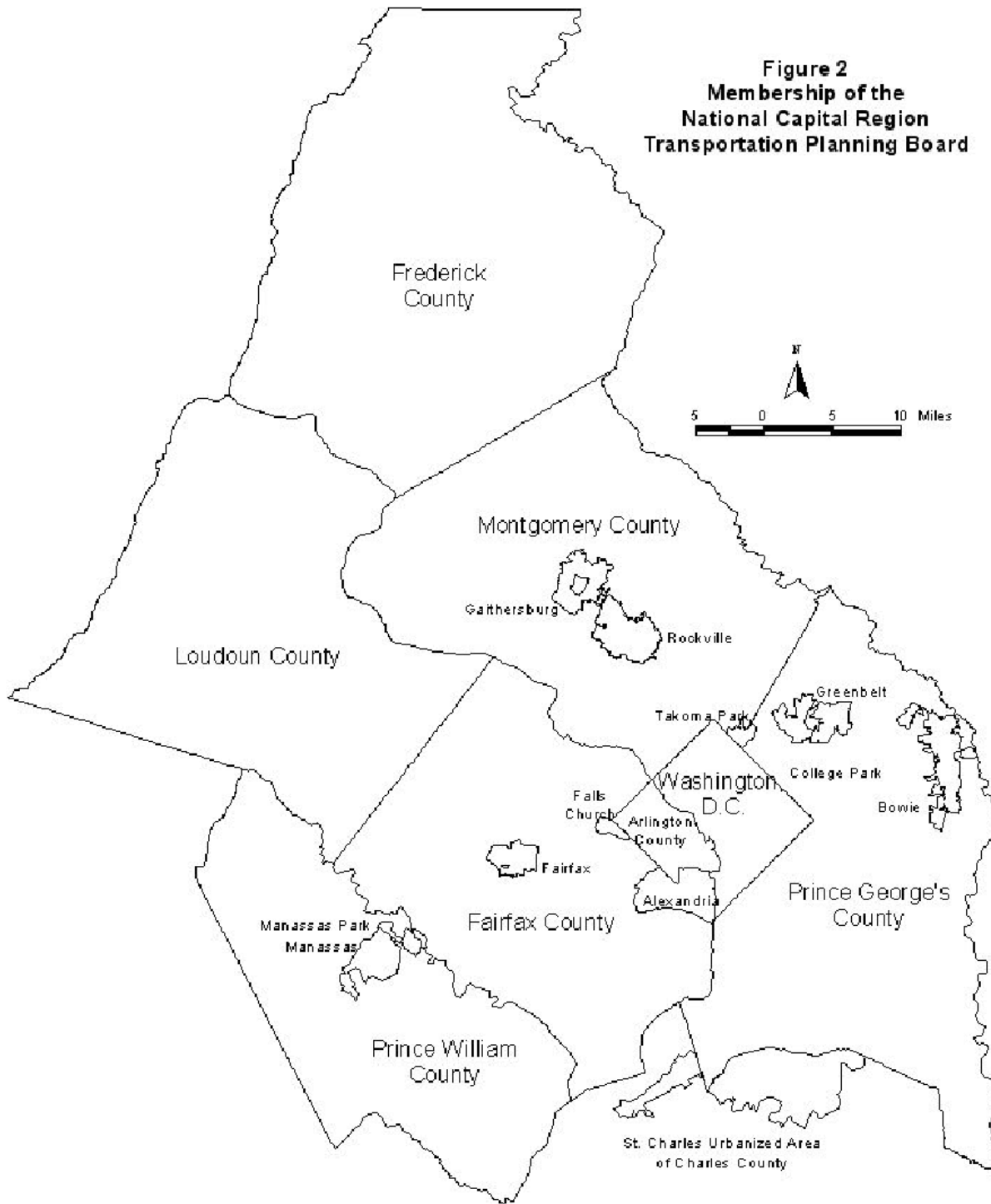
#### DISTRICT OF COLUMBIA

D.C. Council  
D.C. Department of Transportation  
D.C. Office of Planning

#### REGIONAL, FEDERAL AND PRIVATE SECTOR

Washington Metropolitan Area Transit Authority  
Private Transportation Service Providers  
Metropolitan Washington Airports Authority  
Federal Highway Administration  
Federal Transit Administration  
National Capital Planning Commission  
National Park Service

**Figure 2  
Membership of the  
National Capital Region  
Transportation Planning Board**



**Figure 3**

**TRANSPORTATION PLANNING AND PROGRAMMING RESPONSIBILITIES**

<b>RESPONSIBILITY</b>	<b>AGENCIES</b>
<b>UPWP Development Planning Certification</b>	TPB, DOTs, WMATA, Local Gov'ts TPB, DOTs
<b>CLRP Development</b>	
Transportation/Land-Use Planning	TPB, MDPC, Local Gov'ts
Plan Inputs/Update	DOTs, WMATA, Local Gov'ts, NVTA, PRTC,
MWAA	
Project Selection	TPB, DOTs, WMATA, and Local Gov'ts
Air Quality Conformity	TPB, Fredericksburg Area MPO
Financial Plan	TPB, DOTs, WMATA
Congestion Management Process	TPB, DOTs, Local Gov'ts,
Safety Element	TPB, DOTs, Local Gov'ts,
Participation Plan	TPB
Freight Planning	TPB, DOTs, Local Gov'ts.
<b>TIP Development</b>	
TIP Inputs	DOTs, WMATA, Local Gov'ts, NVTA, PRTC,
MWAA	
Project Selection	TPB, DOTs, WMATA
Air Quality Conformity	TPB, Fredericksburg Area MPO
Financial Plan	TPB, DOTs, WMATA, Local Govt., NVTA,
PRTC	
Human Service Transportation	
Coordination Planning	TPB, WMATA, human services agencies
Private Enterprise Participation	TPB, WMATA, Local Gov'ts, NVTC/PRTC
Public Involvement Plan	TPB
Listing of Projects with Federal	
Funding Obligations	TPB, DOTs, WMATA
Air Quality 2010 Attainment Plan	MWAQC, TPB, DOTs
CO <sub>2</sub> Mobile Emissions Reduction	WMATA, state AQ agencies
Strategies	
Corridor Studies	DOTs, WMATA, TPB
Travel Demand Forecasting	TPB
Travel Monitoring	TPB, DOTs, WMATA, Local Gov'ts

**Figure 4**  
**TRANSPORTATION PLANNING STUDIES**  
**WITHIN THE WASHINGTON METROPOLITAN AREA 2011**

Name	Primary Agencies	Schedule	Products
<b>Regional</b>			
Update of Constrained Long-Range Plan	TPB, state DOTs, WMATA, local govts.	2011	CLRP
Regional ITS Architecture Update	TPB, state DOTs, WMATA, local govts.	2011	Report
Metrorail Station Access Alternatives Study	WMATA, TPB	2012	Report
Bus-Priority Hot-Spot Mitigation Measures	WMATA, DDOT, MDOT, VDOT	2012	Plans
Station Area Plans (multiple stations)	WMATA	on-going	Plans
Station Access Studies (multiple stations)	WMATA	on-going	Plans
Gallery Place Metro Station Capacity Enhancement	WMATA	2011	Report
Bus Stop Improvement Standards & Needs Assessment	WMATA	2011	Report
Priority Corridor Dev. Plans (U St./Garfield & Anacostia/Congress Hgts.)	WMATA	on-going	Plans
Bus Service Eval. Studies	WMATA	on-going	Studies
Bicycle and Pedestrian Project Priorities	WMATA	2011	Report
Metro Long-Range Transit System Plan	WMATA	2011	Report
Interface of LRT & Streetcar Projects	WMATA	2011	Report
Regional Benefits of Transit	WMATA	2011	Report



<b>Figure 4 PLANNING STUDIES 2011 (Continued)</b>			
<b>Name</b>	<b>Primary Agencies</b>	<b>Schedule</b>	<b>Products</b>
Update of Capital Needs Inventory (CNI)	WMATA	2011	Report
<b>Virginia</b>			
I-66 Corridor (inside The Beltway)	VDOT	TBD	NEPA
I-66 Corridor Study (MTES) (Outside the Beltway)	VDOT	TBD	NEPA
Tri-County Parkway	VDOT	2011	FEIS
TransAction 2040	NVTA	2012	Report
VRE Extension to Gainesville	VRE	2012	PE/ EIS
Columbia Pike Multi-modal Transportation Study	Arlington Co.	TBD	Prelim. Des.
Columbia Pike Transit Initiative	WMATA, Arl., Fairfax	TBD	NEPA
I-95 / 395 BRT Study	VDOT / DRPT	2011	Report
Vanpool Incentive Design	NVTC / FAMPO	2011	Report
<b>Maryland</b>			
Capital Beltway Study	MDOT, VDOT, Montgomery & Prince George's Counties	TBD	DEIS
I-270 Multi-Modal Corridor Study	MDOT/SHA, Montgomery & Frederick Counties	TBD	FEIS
Corridor Cities Transitway Study	MDOT/MTA	2011	AA/EA
Purple Line (Bethesda to Silver Spring/ Silver Spring to New Carrollton)	MDOT/MTA	2011	AA/DEIS

<b>Figure 4 PLANNING STUDIES 2011 (Continued)</b>			
<b>Name</b>	<b>Primary Agencies</b>	<b>Schedule</b>	<b>Products</b>
MD 5 Transportation Study( I-495 to US 301)	MDOT/SHA	2011	DEIS
US 301 Waldorf Study (US 301from T.B. to south of Waldorf)	MDOT/SHA	TBD	DEIS
US 301 Governor Harry W. Nice Bridge	MD Transportation Authority	2011	EA/FONSI
MD 223 Study (Temple Hill Road to MD 5)	MDOT/SHA	2015	DEIS
MD 197 Study (MD 450 Relocated to Kenhill Drive)	MDOT/SHA	TBD	DEIS
MD 97 Study (16th Street to the Capital Beltway)	MDOT/SHA	2015	DEIS
MD Route 295/Baltimore-Washington Parkway Widening Feasibility Study	FHWA/MDOT	2112	Report
<b>District of Columbia</b>			
14th Street Bridge Feasibility Study	FHWA, DDOT, VDOT	on-going	EIS
White House Area Transportation Study	US DOT	on-going	Report
South Capitol Street (EIS)/AWI	DDOT	on-going	EIS
First Place and Galloway NE Redesign (Fort Totten Metrorail Station)	DDOT/WMATA	on-going	Report/Design
Citywide Travel Demand	DDOT	on-going	Travel Model
Great Streets Program	DDOT	on-going	Design/Construct

**Figure 4 PLANNING STUDIES 2011 (Continued)**

<u>Name</u>	<u>Primary Agencies</u>	<u>Schedule</u>	<u>Products</u>
16 <sup>th</sup> Street Corridor Study	DDOT	2011	Plan/Design
Saint Elizabeth's Campus Master Plan & EIS	GSA	2011	EIS
Climate Change Adaptation Plan	DDOT	2011	Plan
Saint Elizabeth's East Campus Transportation Network EA	DDOT	2011	EA
Managed Lane Study	DDOT	2012	Study



## **Total Proposed Funding by Federal Source for FY 2012**

Proposed federal funding for the transportation planning activities in this UPWP relies upon five sources: FTA Section 5303, FHWA Section 112, FAA Continuous Airport System Planning (CASP), FHWA State Planning and Research (SPR) and special federal funding. The proposed funding amounts (including state and local matching funds) for the TPB work program are shown in Table 1 on page 17.

The new FY 2012 funding level in Table 1 under the "FTA Section 5303" column is the same as the FY 2011 level, and new funding under the "FHWA Section 112" column is the same as the FY 2011. The total FY 2012 budget for the Basic Program with unobligated funding from FY 2010 is the same as the FY 2011 total.

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**TABLE 1** Draft 3/4/11  
**FY 2012 TPB PROPOSED FUNDING BY FEDERAL STATE AND LOCAL SOURCES**  
**(July 1, 2011 to June 30, 2012)**

	FTA SECT 5303 80% FED  & 20% STA/ LOC	FHWA SECT 112 80% FED  & 20% STA/ LOC	FAA CASP 90% FED  & 10% LOC	TOTALS
<b>ALLOTMENTS PROVIDED BY DDOT</b>				
<b>NEW FY 2012</b>	441,149	1,899,791		2,340,940
<b>UNOBLIGATED FY 2010</b>	47,686	271,323		319,009
<b>CARRYOVER FY 2011</b>				0
<b>SUBTOTAL</b>	488,835	2,171,114		2,659,949
<b>ALLOTMENTS PROVIDED BY MDOT</b>				
<b>NEW FY 2012</b>	1,077,700	3,708,490		4,786,190
<b>UNOBLIGATED FY 2010</b>	75,922	375,544		451,466
<b>CARRYOVER FY 2011</b>				0
<b>SUBTOTAL</b>	1,153,622	4,084,034		5,237,656
<b>ALLOTMENTS PROVIDED BY VDOT</b>				
<b>NEW FY 2012</b>	912,243	2,900,449		3,812,692
<b>UNOBLIGATED FY 2010</b>	78,291	271,940		350,231
<b>CARRYOVER FY 2011</b>				0
<b>SUBTOTAL</b>	990,534	3,172,389		4,162,923
<b>TPB BASIC PROGRAM</b>				
<b>TOTAL NEW FY 2012</b>	2,431,092	8,508,730		10,939,822
<b>TOTAL UNOBLIGATED FY 2010</b>	201,899	918,807		1,120,706
<b>SUBTOTAL</b>	2,632,991	9,427,537		12,060,528
<b>TOTAL CARRYOVER FY 2011</b>	0	0		0
<b>TOTAL BASIC PROGRAM</b>	2,632,991	9,427,537		12,060,528
<b>GRAND TOTAL</b>	2,632,991	9,427,537	610,000	12,670,528

"New FY2012 funds" are newly authorized funds for the FY2012 UPWP

"Unobligated FY2010 funds" are unexpended funds from the completed FY2010 UPWP

"Carryover FY2011 funds" are programmed from the FY2011UPWP to complete specific work tasks in the FY2012 UPWP





## II. PROPOSED FY 2012 TPB WORK PROGRAM AND BUDGET

### Program Structure

The TPB is responsible for the federally required planning process, serves as a forum for regional coordination, and provides technical resources for decision-making. The FY2011 work program presents the work activities that support the TPB responsibilities. This work program comprises seven major activities and follows the structure in the FY 2010 program to clearly address the final transportation planning requirements. These work activities include: (1) Plan Support; (2) Coordination and Programs; (3) Forecasting Applications; (4) Development of Networks/Models; (5) Travel Monitoring; (6) Technical Assistance; and (7) Continuous Airport System Planning. The tasks to be completed under each of the work activities are described in the following sections. The staff of the COG Department of Transportation Planning will carry out these activities, with the assistance of staff in other COG departments and supplementary consultant support.

The work program has been structured to clearly identify the specific work products to be developed, the linkages between them, and the TPB entity responsible for oversight of the products. Figures 5 and 6 on pages 21-22 illustrates the relationship between and among the TPB work activities.

The first major activity, **Plan Support** includes the preparation and coordination of the policy and planning products necessary for conducting an effective transportation planning process for the region. The UPWP, the transportation improvement program (TIP) and the financially-constrained long-range plan (CLRP) are required by federal law and regulations.

The second major activity, **Coordination and Programs**, includes related activities such as the regional congestion management process (CMP), safety planning, management, operations and technology, emergency preparedness, freight planning, regional bus planning, and bicycle and pedestrian planning. Public participation applies to all of the policy products. Human services transportation coordination planning addresses the new SAFETEA-LU requirement for coordination of the FTA programs for elderly persons and persons with disabilities, job access and reverse commute, and the new freedom program. The Transportation /Land Use Connection (TLC) Program became a permanent program in FY 2008 to improve the coordination between land use and transportation planning.

The third major activity, **Forecasting Applications**, includes forecasting applications such as air quality conformity and regional studies to provide the substantive inputs for the policy products.

The fourth major activity, **Development of Networks and Models** interacts with **Travel Monitoring**, the fifth major activity. Together, these activities provide empirical travel information from congestion monitoring and survey and analysis activities. Both products and methods activities provide input for the technical products.

The sixth major activity, **Technical Assistance**, activity responds to requests from state and local governments and transit operating agencies for applying TPB methods and data to support corridor, project, and sub-area transportation and land use studies related to regional transportation planning priorities.

Finally, the seventh major activity, **Continuous Airport System Planning (CASP)** utilizes the methods and data work activities for airport and airport-serving facilities in the region.

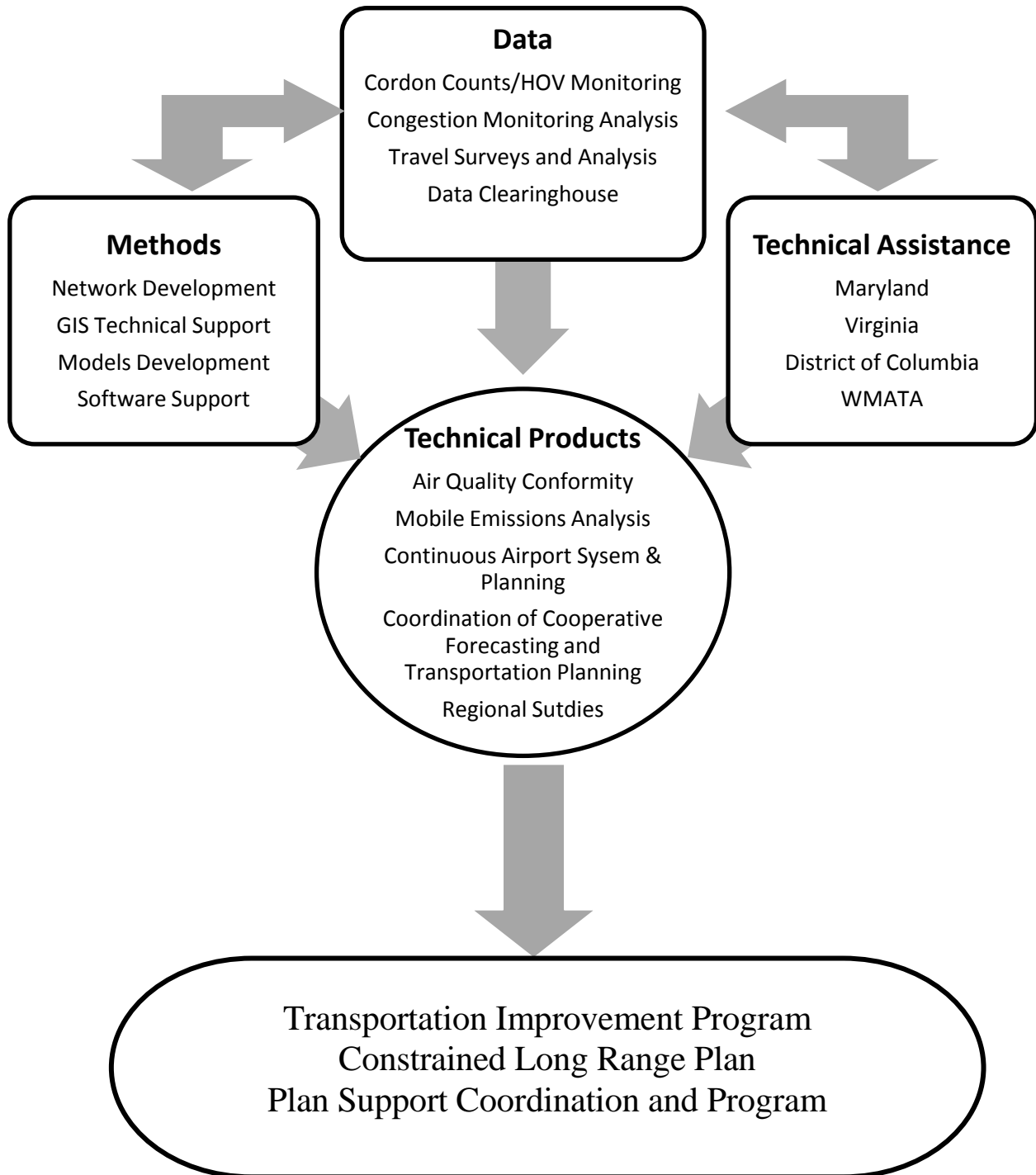
## **Work Activity Budgets**

The proposed budget levels by funding source, which include FTA and FHWA funds together with state and local match, are shown in Table 2 on page 25. The TPB committee structure is shown in Figure 6 on page 26. The TPB committee or sub-committee responsible for the specific work activities listed in Table 2 are shown under the descriptions for each task starting on page 29. A detailed breakdown of staffing, consultant costs and other budgetary requirements is provided in Table 3 on page XX.

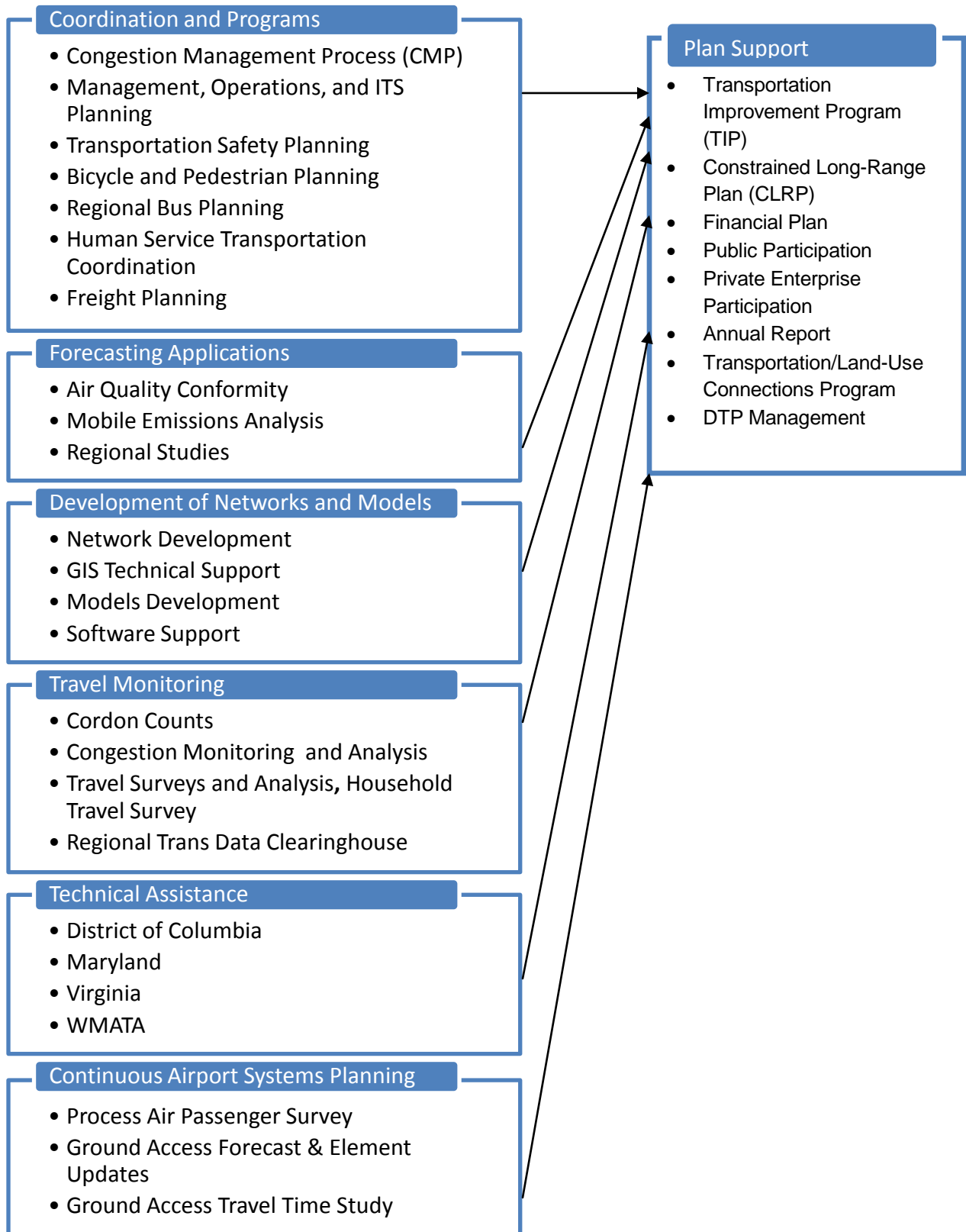
Funding for the TPB Basic Work Program is similar to the FY 2011 level, and the FY 2012 UPWP continues and expands the work activities in the FY 2011 UPWP. The structure and content of this work program are summarized as follows:

- **Under Section 1 - Plan Support**, all of the activities have been conducted on an annual basis in previous years.
- **Under Section 2 - Coordination Planning**, all of the activities have been conducted on an annual basis in previous years
- **Under Section 3 - Forecasting Applications**, all of the activities have been conducted on an annual basis in previous years.
- **Under Section 4 - Development of Networks/Models**, all of the activities have been conducted on an annual basis in previous years.
- **Under Section 5 - Travel Monitoring**, all of the activities have been conducted on an annual basis in previous years.
- **Section 6 - Technical Assistance and Section 7 - Continuous Airport System Planning (CASP)** are conducted each year.
- **Section 8 - Service/Special Projects**, service work or special technical studies as specified in contracts between the transportation agencies and COG may be included in the UPWP. Services or special projects are authorized and funded separately by the transportation agencies.

**Figure 5: Overview of Planning Products and Supporting Activities**



**Figure 6: Visual Representation of UPWP Work Activity Relationships**



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TABLE 2

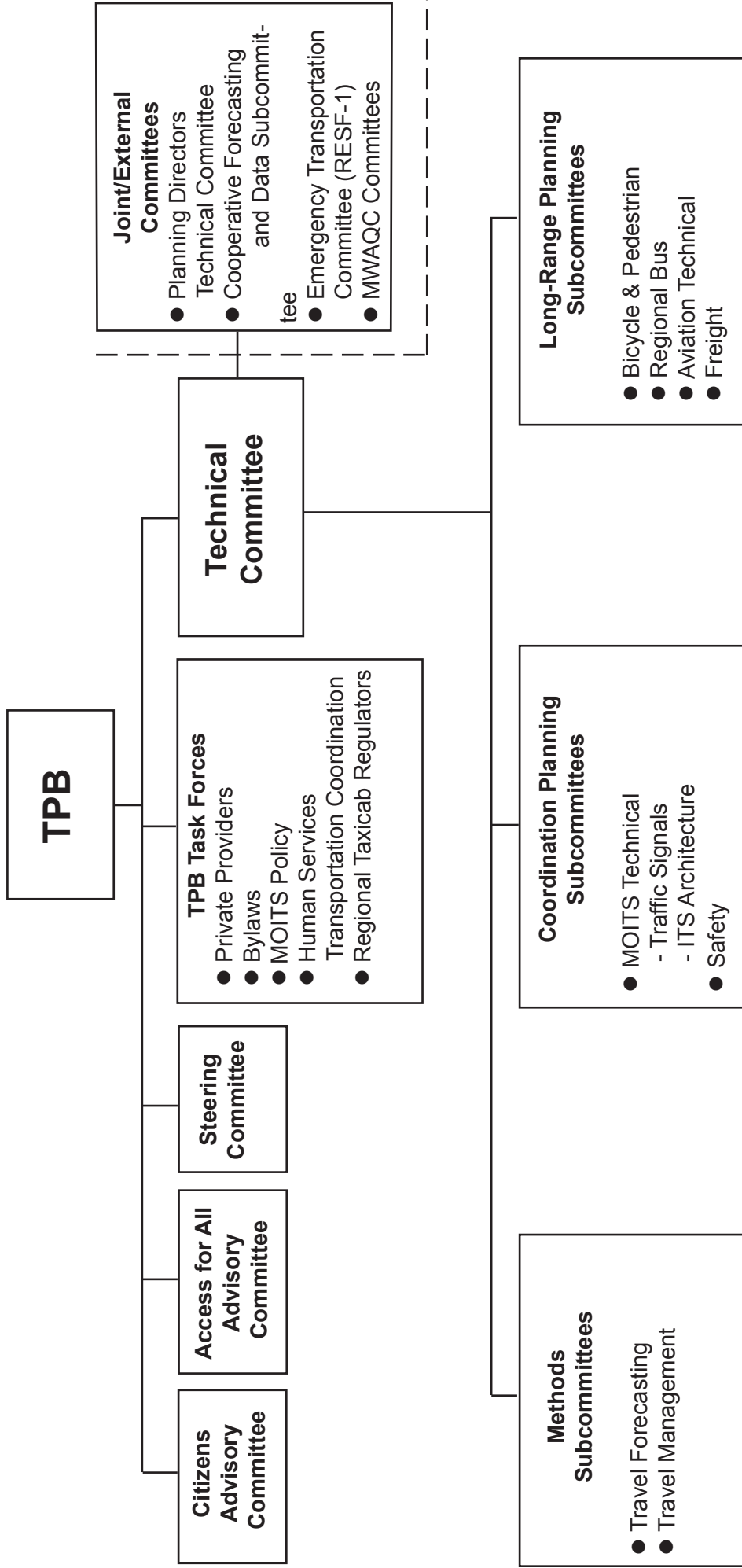
## TPB FY 2012 WORK PROGRAM BY FUNDING SOURCES

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WORK ACTIVITY	TOTAL COST	FTA/STATE/ LOCAL	FHWA/STATE/ LOCAL	OTHER FUND
<b>1. PLAN SUPPORT</b>				
A. Unified Planning Work Program (UPWP)	70,700	17,066	53,634	
B. Transp Improvement Program (TIP)	240,600	58,077	182,523	
C. Constrained Long-Range Plan	588,400	142,029	446,371	
D. Financial Plan	64,000	15,448	48,552	
E. Public Participation	371,900	89,770	282,130	
F. Private Enterprise Participation	18,300	18,300		
G. Annual Report	80,100	19,335	60,765	
H. Transportation/Land Use Connection Progr	395,000	95,346	299,654	
I. DTP Management	452,100	109,129	342,971	
Subtotal	2,281,100	564,500	1,716,600	
<b>2. COORDINATION and PROGRAMS</b>				
A. Congestion Management Process (CMP)	205,000	49,483	155,517	
B. Management, Operations, and ITS Planning	340,300	82,142	258,158	
C. Emergency Preparedness Planning	75,400	18,200	57,200	
D. Transportation Safety Planning	125,000	30,173	94,827	
E. Bicycle and Pedestrian Planning	108,700	26,238	82,462	
F. Regional Bus Planning	100,000	24,138	75,862	
G. Human Service Transportation Coordination	114,800	27,711	87,089	
H. Freight Planning	150,000	36,207	113,793	
I. MATOC Program Planning Support	120,000	28,966	91,034	
Subtotal	1,339,200	323,259	1,015,941	
<b>3. FORECASTING APPLICATIONS</b>				
A. Air Quality Conformity	563,200	135,947	427,253	
B. Mobile Emissions Analysis	640,100	154,509	485,591	
C. Regional Studies	566,300	136,695	429,605	
D. Coord Coop Forecasting & Transp Planning	806,800	194,747	612,053	
Subtotal	2,576,400	621,897	1,954,503	
<b>4. DEVELOPMENT OF NETWORKS/MODELS</b>				
A. Network Development	769,700	185,792	583,908	
B. GIS Technical Support	548,800	132,471	416,329	
C. Models Development	1,071,200	258,569	812,631	
D. Software Support	178,900	43,183	135,717	
Subtotal	2,568,600	620,015	1,948,585	
<b>5. TRAVEL MONITORING</b>				
A. Cordon Counts	250,800	60,539	190,261	
B. Congestion Monitoring and Analysis	350,000	84,484	265,516	
C. Travel Surveys and Analysis				
Household Travel Survey	706,300	170,488	535,812	
D. Regional Trans Data Clearinghouse	317,900	76,735	241,165	
Subtotal	1,625,000	392,246	1,232,754	
<b>Core Program Total (I to V)</b>	10,390,300	2,521,917	7,868,383	
<b>6. TECHNICAL ASSISTANCE</b>				
A. District of Columbia	316,000	41,708	274,292	
B. Maryland	646,100	85,277	560,823	
C. Virginia	513,600	67,789	445,811	
D. WMATA	194,500	194,500		
Subtotal	1,670,200	389,274	1,280,926	
<b>Total, Basic Program</b>	12,060,500	2,911,191	9,149,309	
<b>7. CONTINUOUS AIRPORT SYSTEM PLANNING</b>				
Ground Access Travel Time Study - Phase 2	85,000			85,000
Update Ground Access Forecasts- Phase 2	100,000			100,000
Ground Access Element update- Phase 1	40,000			40,000
Conduct 2011 Regional Air Passenger Survey	300,000			300,000
Process 2011 Air Passenger Survey- Phase 1	85,000			85,000
Subtotal	610,000			610,000
<b>GRAND TOTAL</b>	12,145,500	2,911,191	9,149,309	85,000

Table 3 goes here

Figure 7  
**TPB Committee Structure**



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### **III. MAJOR WORK ACTIVITIES**

#### **1. PLAN SUPPORT**

##### **A. THE UNIFIED PLANNING WORK PROGRAM (UPWP)**

The Unified Planning Work Program (UPWP) for the Metropolitan Washington Region describes all transportation planning activities utilizing federal funding, including Title I Section 134 metropolitan planning funds, Title III Section 8 metropolitan planning funds, and Federal Aviation Administration Continuing Airport System Planning (CASP) funds. The UPWP identifies state and local matching dollars for these federal planning programs, as well as other closely related planning projects utilizing state and local funds.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Clean Air Act Amendments of 1990 (CAAA) created a number of planning requirements. On October 28, 1993, FHWA and FTA issued final regulations regarding metropolitan planning. The Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU), which became law on August 11, 2005, reaffirms the structure of the metropolitan planning process, and increases federal financial support for it. On February 14, 2007, FHWA and FTA issued the final regulations regarding metropolitan planning in response to SAFETEA-LU. This work program has been developed to comply with these regulations.

In 1994, the TPB developed and adopted the first financially-constrained Long Range Transportation Plan for the National Capital Region (CLRP). In July 1997, the first three-year update of the CLRP was approved by the TPB, the second update was approved in October 2000, and the third update was approved in December 2003. The fourth update was approved by the TPB in October 2006. On November 17, 2010, the TPB approved the fifth update.

The Environmental Protection Agency (EPA) issued regulations on November 24, 1993, followed with a succession of guidance documents, and on July 1, 2004 published the 8-hour ozone standard conformity guidance, which taken together provide criteria and procedures for determining air quality conformity of transportation plans, programs and projects funded or approved by the FHWA and FTA. These conformity requirements are addressed in this document. Under these regulations, the State Implementation Plans (SIP) for improving air quality for the region must be adopted by the states and submitted to EPA by specified dates.

The FY 2012 UPWP defined by this document details the planning activities to be accomplished between July 2011 and June 2012 to address the annual planning requirements such as preparing the Transportation Improvement Program, addressing federal environmental justice requirements, and assessing Air Quality Conformity. It describes the tasks required to meet approval dates for the region's SIPs, and outlines the activities for the subsequent years.

In addition, this document describes the integration of program activities and responsibilities of the TPB Technical Committee and its subcommittees for various

aspects of the work program. It provides an overview of the regional planning priorities and describes the major transportation planning and air quality planning studies being conducted throughout the region over the next two years.

During FY 2012, certain amendments may be necessary to reflect changes in planning priorities and inclusion of new planning projects. Under this task, Department of Transportation Planning (DTP) staff will identify and detail such amendments for consideration by the TPB as appropriate during the year.

In the second half of FY 2012, staff will prepare the FY 2013 UPWP. The document will incorporate suggestions from the federal funding agencies, state transportation agencies, transit operating agencies, local governments participating in TPB, and the public through the TPB's public involvement process. The new UPWP will be presented in outline to the TPB Technical Committee and the TPB in January 2012, as a draft to the Technical Committee in February 2012 and as a final document for adoption by the Technical Committee and the TPB in March 2012. The approved UPWP will be distributed to the TPB and the Technical Committee, and made available to the public on the TPB web site.

This task will also include the preparation of monthly progress reports for each of the state agencies administering the planning funding, and the preparation of all necessary federal grant submission materials.

Oversight:	Technical Committee
Cost Estimate:	\$70,700
Products:	UPWP for FY 2013, amendments to FY 2012 UPWP, monthly progress reports and state invoice information, federal grant materials
Schedule:	Draft: February 2012    Final: March 2012

## **B. THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP)**

The Transportation Improvement Program (TIP) for the Metropolitan Washington Area is a six year program of highway, transit, bicycle and pedestrian, congestion mitigation/air quality, safety and transportation enhancement projects. The TIP will be updated every two years and amended as necessary between updates. Up-to-date information on project amendments and modifications in the TIP is available in the on-line TIP database. An annual TIP document will now be produced every two years. The TIP must be approved by the TPB and the governors of Maryland and Virginia and the mayor of the District of Columbia, and is required as a condition for all federal funding assistance for transportation improvements within the Washington Metropolitan Statistical Area. TIP documentation will describe major projects from the previous TIP that were implemented and identify significant delays in the implementation of major projects. The air quality conformity report will describe progress in implementing transportation emission reduction measures (TERMs) required for improving air quality.

Citizens, affected public agencies, representatives of transportation agency employees, private providers of transportation, freight shippers, users of public transit, and all other interested parties will be given an opportunity to review and comment on all amendments to the FY 2011-2016 TIP and the proposed FY 2013-2018 TIP as described under the TPB's public participation plan which was adopted in December 2007. A public forum will be conducted during the development of the FY 2013-2018 TIP. To facilitate public review, project information from the TIP and CLRP will be made accessible through an online, searchable database. Visual representation of the projects will be enhanced with a GIS system for displaying projects. The database application for submitting TIP project data, CLRP projects, and air quality conformity data will continue to be improved to facilitate reviewing the TIP and CLRP information. Interactive means of sharing the information in the TIP and CLRP such as querying capabilities and specialized maps or graphs will be available. A brochure highlighting the CLRP/TIP projects and financial plan will be prepared.

### The TIP Schedule and Project Selection

The FY2011-2016 TIP and 2010 CLRP were adopted by the TPB in November 2010. Also in November 2010, the TPB issued a call for projects document requesting project submissions for the 2011 CLRP.

Amendments to the FY 2011-2016 TIP that accompany updates to the 2011 CLRP will be prepared for review by the TPB Technical Committee, the TPB, and the public between January and October 2011. These TIP amendments will be prepared with the assistance of and in cooperation with the transportation implementing agencies in the region, including the state departments of transportation, the District of Columbia Department of Transportation, the National Park Service, the Washington Metropolitan Area Transit Authority (WMATA) and other public transit operators, and local government agencies.

Projects included in the TIP amendments will be reviewed for consistency with the policies and facilities delineated in the adopted financially-constrained Long Range Transportation Plan (CLRP) for the region. Only projects, or phases of projects, that have full funding anticipated to be available within the time period contemplated for completion are included in the TIP. A financial plan will be prepared to demonstrate how the TIP can be implemented, and indicate the sources of public, private and innovative funding. This financial plan will be expanded with additional analysis and visual aids such as graphs and charts, online documentation and an accompanying summary brochure for the CLRP and TIP as amended.

During the year several administrative modifications and amendments will be needed in the FY 2011-2016 TIP to revise funding information or reflect changes in priorities or the introduction of new project elements. Such modifications and amendments will follow the procedures adopted by the TPB on January 16, 2008.

In November 2011, the TPB will issued a call for projects document requesting project submissions for the new FY 2013-2018TIP and 2012 CLRP. Draft FY 2013-2017 TIP and

the 2012 CLRP amendments will be prepared for review by the TPB Technical Committee, the TPB, and the public between January and October 2012.

### Annual Listing of TIP Projects that Have Federal Funding Obligated

SAFETEA-LU requires that the TPB must publish or otherwise make available an annual listing of projects, consistent with the categories in the TIP, for which federal funds have been obligated in the preceding year. With the assistance of and in cooperation with the transportation implementing agencies in the region, TPB will prepare a listing of projects for which federal funds have been obligated in FY 2011.

Oversight:	Technical Committee
Cost Estimate:	\$240,600
Products:	FY 2011-2016 TIP amendments, administrative modifications to the FY 2011-2016 TIP Draft FY 2013-2017 TIP and the 2012 CLRP amendments
Schedule:	November 2011 October 2012

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

The Financially Constrained Long-Range Transportation Plan (CLRP) must be updated every four years as required by the final SAFETEA-LU planning regulations issued February 14, 2007. The CLRP is updated annually with amendments that include new projects or adjust the phasing or other aspects of some of the projects or actions in the plan, or change specific projects as new information on them becomes available. The 2010 CLRP was the last major update of the plan and includes an expanded financial analysis of transportation revenues expected to be available. The planning horizon for CLRP extends to 2040.

The Transportation Vision which was adopted by the TPB in October 1998, contains a vision statement, long-range goals, objectives, and strategies to guide transportation planning and implementation in the region. It addresses the eight planning factors in SAFETEA-LU. The Vision is the TPB Policy Element of the CLRP. The CLRP website ([www.mwcog.org/clrp](http://www.mwcog.org/clrp)) documents how the plan addresses the SAFETEA-LU planning factors as reflected by the goals of the TPB Vision. The goals from COG's Region Forward efforts are reflected in the TPB Vision, which includes a broader set of policy goals for transportation than Region Forward.

The CLRP will be documented in several ways and public materials will be provided during plan development and after plan approval. The CLRP website will be utilized to document the plan update by describing the development process, related planning activities, major projects, performance of the plan and how the public can get involved.

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

### The 2011 CLRP

In November 2010, the TPB issued a "Call for Projects" document requesting projects, programs or strategies for inclusion in the 2011 CLRP. Project updates were due in February 2011. Materials describing the draft 2011 CLRP were developed in the spring of 2010, including maps, major project descriptions, and analysis from the previous year's CLRP.

Documentation of the plan will include an analysis of how the plan performs in regard to transit and auto trips made, vehicle miles of travel, lane miles of congestion and accessibility to jobs. The performance analysis is done after every CLRP update and is documented on the CLRP website. The analysis will be used to describe how the CLRP performs based on regional goals and federal planning factors and will also examine connectivity between the Regional Activity Centers. The CLRP will also be evaluated to see if low-income and minority populations are disproportionately impacted by adverse effects of the plan as new demographic data from the 2010 Census becomes available. The development of the 2011 CLRP will include two opportunities for the public to comment on the Plan.

In October 2011, the 2011 update to the CLRP will be released for a final public comment period and the accompanying air quality conformity analysis. The TPB is scheduled to adopt the 2011 CLRP in November 2011.

### The 2012 CLRP

In October 2011, the TPB will issue its "Call for Projects" document again requesting new and updated information on projects, programs and strategies to be included in the 2012 CLRP update. Draft materials describing the CLRP will be prepared for review by the TPB Technical Committee, the TPB and the public between February and June 2012. The TPB is scheduled to adopt the 2012 CLRP in November 2012.

### Environmental Consultation

During the development of the CLRP the TPB consults with 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.

To build on these consultation efforts, potential additional products and coordination will be researched on how to best facilitate the further integration of natural resource, land use, historic and cultural resource considerations into the long-range transportation planning process.

An on-going forum for environmental and transportation planning coordination will be explored, such as an Environmental Consultation Subcommittee or Task Force. Membership could include representatives from Environmental Resource agencies, State and D.C. Departments of Transportation (DOT's), local transportation agencies, jurisdictional land use planning agencies, and historic and cultural resource agencies. Meetings could be held quarterly. New and/or innovative mitigation strategies will be researched and used to develop a mitigation toolkit for DOT's and environmental resource agencies highlighting best practices in the region and beyond. The natural and historic resource maps will be updated, and include areas for potential restoration that can be used to guide advanced mitigation efforts.

Oversight:	Technical Committee
Cost Estimate:	\$588,400
Products:	Documentation of the 2011 CLRP and draft 2012 CLRP on website with interactive maps, searchable database, accompanying summary brochure, other printed materials and an environmental mitigation toolkit
Schedule:	2011 CLRP Documentation – December 2011 Draft 2012 CLRP – June 2012 Environmental mitigation toolkit- June 2012

#### D. FINANCIAL PLAN

As required under federal planning regulations, both the TIP and the CLRP must have a financial plan that demonstrates how they can be implemented and show the sources of funding expected to be made available to carry them out. A new financial analysis by the consultant and plan for the 2010 CLRP was completed in October 2010, including new federal and state revenue projections, revised cost estimates for new system expansion projects, and revised cost estimates for system maintenance and rehabilitation. All revenue and cost estimates are in year of expenditure dollars as well as constant dollars through 2040. The financial plan will be updated by the implementing agencies as they prepare the inputs for the 2012 CLRP.

#### The Transportation Improvement Program

A financial plan for the FY 2011-2016 TIP amendments will be prepared. Since SAFETEA-LU funding is apportioned to states, financial summaries for all TIP projects from agencies in the District of Columbia, Maryland and Virginia as well as WMATA and other transit agencies will be prepared. All projects submitted by these agencies will be

grouped by the proposed SAFETEA-LU program funding categories under Surface Transportation (Title I) and Transit (Title III).

The funds programmed in the TIP for each state by SAFETEA-LU program category will be compared with the information provided by the states and transit operators on the estimated available Federal and State funds for the program period. The funds programmed in the TIP for each state by SAFETEA-LU program category in the first and second years will be compared with the trends of the annual funding programmed in previous TIPs and with the funding reported in the annual listings of TIP projects that have federal funding obligated. Comparisons that indicate significant changes from past trends will be reviewed with the implementing agency to clarify the change. Implementing agencies will ensure that only projects for which construction and operating funds can reasonably be expected to be available will be included in the TIP. In the case of new funding sources, strategies for ensuring their availability will be identified by the implementing agency and included in the TIP. The product will be a financial summary that focuses on the first two years of the six-year period of the TIP, and it will be incorporated as a main section of the TIP for review by the public and approval by the Technical Committee and the TPB. The TIP will also summarize funding that the implementing agencies have programmed specifically for bicycle and pedestrian projects and identify projects that include bicycle and/or pedestrian accommodations.

Oversight:	Technical Committee
Cost Estimate:	\$64,000
Products:	Financial summaries for the FY 2011-2016 TIP amendments and inputs for the draft 2012 CLRP
Schedule:	On-going as TIP amendments are submitted

#### E. PUBLIC PARTICIPATION

The Participation Plan, which was adopted in December 2007, will guide all public involvement activities to support the development of the new TIP and CLRP as well as all other TPB planning activities. Much of the TPB's public participation work in FY 2012 will focus on developing and implementing tools and activities that explain to the public how transportation decisions are made in the Washington region.

Work activities include:

- Support implementation of the TPB Participation Plan.
- Develop and conduct workshops or events 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 material, 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.
- 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 public outreach support for the development of the TPB's Regional Transportation Priorities Plan.
- 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.
- Implement 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
Cost Estimate:	\$371,900
Products:	TPB Participation Plan with a proactive public involvement process; CAC and AFA Committee Reports
Schedule:	On-going, with forums and meetings linked to preparation of CLRP and TIP

#### F. PRIVATE ENTERPRISE PARTICIPATION

In June 1987, the TPB adopted its Private Enterprise Participation Policy and Procedures designed to afford maximum opportunity to private providers to participate in the development and provision of mass transportation services in the region. In April 1994, the Federal Transit Administration (FTA) rescinded its private participation guidance and changed the federal requirements regarding private enterprise participation. During FY 1995, the TPB reviewed its policy and revised it in light of the new requirements. Under



this task, DTP staff will conduct the activities as specified in the policy adopted on July 19, 1995 by the TPB.

The following activities are anticipated:

- The procedures for involving private transportation providers in urban mass transportation and the activities accomplished will be documented as a section of the Transportation Improvement Program (TIP).
- To facilitate early consultation, TPB will conduct an annual forum for key transit staff from the local jurisdictions and WMATA to meet with interested private providers to discuss in general terms their plans for major bus service changes and expansions.
- Private transit providers will be afforded the opportunity to present their views on the CLRP, the TIP, and the Unified Planning Work Program while these documents are in a draft stage.
- Support will be provided to the Private Providers Task Force. This group will be the vehicle through which the above tasks are accomplished, and will advise the TPB of the private provider perspective on transit service through its chairman, who is a non-voting member of the TPB. Minutes will be prepared for Task Force meetings, as well as other documentation as required.
- Through their representation on the TPB, private transit and taxicab providers will be encouraged to contribute to the shaping of policies and strategies for the CLRP that promote effective, competitive provision of transit services, particularly in growing suburban areas and activity centers.
- In July 2007, the TPB established the Taxicab Regulators Task Force to: 1) encourage close cooperation and sharing of information between municipal and county taxicab regulators in the National Capital region and to work to resolve common problems and 2) explore the possibility of developing standards to improve the quality of service for taxicab customers in their respective jurisdictions. TPB staff will support the task force meetings which are scheduled every quarter.

Oversight:	Transportation Planning Board
Cost Estimate:	\$18,300
Product:	Documentation on Private Provider Involvement
Schedule:	Annual Transit Forum - May 2012

### G. TPB ANNUAL REPORT AND TPB NEWS

TPB staff annually produces *The Region* magazine, which provides a non-technical review and analysis of transportation issues in the Washington region. Elected officials and citizens are the primary target audience of this magazine, which has an annual

circulation of approximately 1,400 and is distributed throughout the year as the TPB's flagship publication.

The *TPB News* is produced monthly to provide a timely update on the activities of the TPB, including decisions made at the TPB's monthly meeting. The *TPB News* has a circulation of approximately 1,100 paper copies, and an electronic distribution of approximately 500.

Activities in FY 2012 will include:

- Write and produce the monthly newsletter *TPB News*.
- Produce *The Region* magazine which describes TPB activities in calendar year 2011.

Oversight: Transportation Planning Board

Cost Estimate: \$80,100

Products: *Region* magazine and *TPB News*

Schedule: April 2012 (*Region*); monthly publication of *TPB News*

#### H. TRANSPORTATION/LAND USE CONNECTION (TLC) PROGRAM

The TLC Program provides support to local governments in the Metropolitan Washington region as they work to improve transportation/ land use coordination at the community level. Through the program, the TPB provides its jurisdictions with consultant-provided, short-term technical assistance to catalyze or enhance planning efforts. Begun as a pilot in November 2006, the program also provides a clearinghouse to document national best practices, as well as local and state experiences with land use and transportation coordination. By the end of FY2011, 48 TLC technical assistance projects will have been completed. These projects cover a range of subjects, including promoting "complete streets" improvements to ensure pedestrian and bicycle access to transit, identifying transportation and public realm improvements to facilitate transit-oriented development, and offering recommended changes in local government policies on issues such as urban road standards or parking policies.

The following activities will be conducted in FY 2012:

- Maintain and update the TLC Regional Clearinghouse and website
- Fund at least six technical assistance planning projects at a level between \$20,000 and \$60,000 each.
- Develop tools and activities to facilitate regional learning about TLC issues among TPB member jurisdictions.

- Organize at least one regional meeting to facilitate an exchange of information about lessons-learned from past TLC projects and explore interest in establishing an electronic regional peer exchange network .
- 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.
- 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

Cost Estimate: \$395,000

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

Schedule: September 2011-June 2012

### I. DTP MANAGEMENT

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

- Supervision of the preparation, negotiation, and approval of the annual work program and budget, involving the State Transportation Agencies, the Technical Committee, the Steering Committee, and the TPB.
- Day-to-day monitoring of all work program activities and expenditures by task.
- Day-to-day management and allocation of all staff and financial resources to insure that tasks are completed on schedule and within budget.
- Preparation for and participation in regular meetings of the TPB, the Steering Committee, the Technical Committee, and the State Technical Working Group.
- Attendance at meetings of other agencies whose programs and activities relate to and impact the TPB work program, such as local government departments.
- Response to periodic requests from TPB members, federal agencies, Congressional offices, media, and others for information or data of a general transportation nature.
- Review of transportation proposals of regional importance submitted to TPB through the intergovernmental review process. Where significant regional impacts

are likely, staff will obtain Technical Committee and Board review and approval of comments prepared.

In addition to salaries, nominal amounts are utilized for travel related to non project specific meetings attended by the senior staff, data processing for financial monitoring and analysis, and conferences such as FTA and FHWA seminars on federal regulations and financial management. These activities represent three to four percent of the total amount allocated for DTP Management.

Oversight:	Transportation Planning Board
Cost Estimate:	\$452,100
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)

The regional Congestion Management Process (CMP) is a federally required component of the metropolitan transportation planning process. The CMP is to address the systematic management of traffic congestion and provision of information on transportation system performance. No single occupant vehicle (SOV) capacity expanding project can receive federal funds unless it is part of the regional CMP.

The CMP includes information from regional Travel Monitoring programs (see Section 5 of the UPWP) addressing recurring congestion, 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. below). Additionally, this task includes procurement and analysis of transportation systems condition data archives from private sector sources. A major source of this information is the speed data archive from the I-95 Corridor Coalition/INRIX, Inc. Vehicle Probe Project. As an affiliate member of the I-95 Corridor Coalition, TPB has gratis access to data archives on certain roadways in the region covered under the Coalition's Vehicle Probe Project. TPB also has gratis access to data from supplementary, expanded roadway coverage beyond the limited Coalition coverage, funded by the Maryland and Virginia Departments of Transportation. TPB will also undertake supplementary data purchases of private sector data for coverage (geographic and/or temporal) not otherwise available through the gratis sources.

The CMP also considers strategies that address congestion. Information from transportation strategy analysis from the Air Quality Conformity program (see also Task 3.A.) is examined. Demand management strategies considered and implemented through the regional Commuter Connections Program (see [www.commuterconnections.org](http://www.commuterconnections.org)) are important CMP components. Systems management, operations, and engineering strategies are examined in conjunction with the MOITS program.

Under this work task, TPB will 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. An updated CMP Technical Report was published in FY2011; and a subsequent updated report will be published in FY 2012.

- A CMP Web page, updated on a periodic basis, will review recent information on congestion and incidents on the region's transportation system, with a "dashboard" of key performance indicators (subject to the availability of data).

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

Cost Estimate: \$205,000

Products: Updated CMP portions of the CLRP; 2012 CMP Technical Report; CMP Web page; summaries, outreach materials, and white paper(s) on technical issues as needed; supporting data sets

Schedule: Monthly

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

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. A key focus of MOITS planning is the region's non-recurring congestion, due to incidents or other day-to-day factors. A MOITS Strategic Plan was completed in FY2010 and provided updated guidance and direction to the program. The MOITS program includes planning activities to support the following major topics:

- ITS Data: The collection/compilation, processing, warehousing, and sharing of transportation systems usage and condition data from Intelligent Transportation Systems (ITS) sources, particularly in conjunction with the University of Maryland's Regional Integrated Transportation Information System (RITIS)
- Regional Transportation Management: Regional traffic management planning and coordination activities, particularly in conjunction with the Metropolitan Area Transportation Operations Coordination (MATOC) Program (see also Task 2.I, which was established as a separate task from MOITS in FY2010); MATOC focuses on short-range planning issues for traffic management, and MOITS focuses on mid-to-long-range planning for traffic management
- Multi-modal Coordination: Examination of traffic and transit management interactions in daily operations, including a focus on improvements that could increase average bus speed and on-time performance

- **Emergency Preparedness:** Examination of technologies and operating procedures for daily operations that can provide a basis for emergency transportation operations, in conjunction with the COG Regional Emergency Support Function 1 – Emergency Transportation Committee (see also Task 2.C.)
- **Traveler Information:** Real-time traveler information made available to the public
- **Congestion Management Process:** Technology and operations strategies to address non-recurring congestion aspects of the regional Congestion Management Process (see also Task 2.A.)
- **Maintenance and Construction Coordination:** Regional sharing of available maintenance and construction information for coordination purposes
- **Intelligent Transportation Systems (ITS) Architecture:** 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 the region’s MOITS-related projects
- **Traffic Signals:** Assist member agencies in the exchange and coordination of inter-jurisdictional traffic signal operations information and activities
- **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; monitor national emerging MOITS activities for potential application in the region**
- **Provide staff support to the MOITS Policy Task Force, MOITS Technical Subcommittee, MOITS Regional ITS Architecture Subcommittee, and MOITS Traffic Signals Subcommittee, supporting these regional forums for coordination and information exchange among member agency staffs and other stakeholders.**

Oversight: TPB MOITS Policy Task Force; MOITS Technical Subcommittee; MOITS Regional ITS Architecture Subcommittee; MOITS Traffic Signals Subcommittee

Cost Estimate: \$340,300

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

Schedule: Monthly

### C. TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING

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.

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:
  - 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:	TPB MOITS Policy Task Force and MOITS Technical Subcommittee; COG Regional Emergency Support Function (RESF) #1 - Transportation Committee
Cost Estimate:	\$75,400
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
Schedule:	Monthly

#### D. TRANSPORTATION SAFETY PLANNING

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. 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. The Transportation Safety Subcommittee, formed in FY2008, will provide a forum for safety stakeholders to exchange information, coordinate on safety programs around the region, and provide safety input to the overall regional transportation planning process. The safety element of the regional Constrained Long-Range Plan will be updated as needed.

The regional Street Smart pedestrian and bicycle safety outreach campaign, separately funded through federal, state, and local grants and contributions, addresses safety needs by increasing public awareness of the risk and consequences of pedestrian and bicycle-involved motor vehicle crashes.

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. Follow up on recommendations from the regional transportation safety data analysis tool scoping study completed in FY2011.

- 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
Cost Estimate:	\$125,000
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

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 FY2010, 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.
- Compile bicycle and pedestrian project recommendations for the FY2013-2018 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, as well as advise on the marketing materials developed in FY 2011 aimed at developers for their consideration in the development approval process.
- 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
Cost Estimate:	\$108,700
Products:	Compilation of bicycle and pedestrian facilities for the FY 2013-2018 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

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 2012 include the following:

- Continued development of a priority list of regional projects to improve bus transit services.

- Development and publication of useful operations, customer, and financial data on regional bus services for TPB and public utilization.
- Coordination and evaluation of CLRP and TIP proposals and amendments with regard to bus transit service plan implementation.
- Provide technical advice and input regarding regional transportation and land use coordination, including the development of transit assumptions for TPB planning studies.
- Facilitation of technology transfer and information sharing as it relates to regional, state and local bus transit services, including for Bus Rapid Transit (BRT) projects, customer information, and other common issues.
- Coordination with other regional committees regarding bus transit participation in planning and training activities, including but not limited to the Regional Emergency Support Function (RESF) #1 at COG, and the associated regional transit operators group (RTOG).
- Coordination with the TPB Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee regarding integrated planning for bus services and street operations.
- Coordination with the TPB Access for All (AFA) Committee to enhance regional mobility for all populations.

Oversight:	Regional Bus Subcommittee
Cost Estimate:	\$100,000
Products:	Data compilation, reports on technical issues, and outreach materials
Schedule:	Monthly

#### G. HUMAN SERVICE TRANSPORTATION COORDINATION

In 2009 the TPB adopted an Update to the Coordinated Human Service Transportation Plan for the National Capital Region ("Coordinated Plan"). A Coordinated Plan is required under the final USDOT planning regulations to guide funding decisions for the following 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). The Coordinated Plan describes existing transportation services, unmet transportation needs, strategies to address those needs and priorities for implementation to better serve persons with disabilities, those with

limited incomes and older adults. The Coordinated Plan also establishes selection criteria for the competitive selection of JARC and New Freedom projects. The final regulations also require that the CLRP and TIP shall consider the design and delivery of non-emergency transportation services. The TPB became the designated recipient of the FTA's JARC and New Freedom programs in 2006 for the Washington DC-VA-MD Urbanized Area; each program provides approximately \$1 million in Federal funds annually to the Washington region. The goals of these programs are to improve transportation services for low-income individuals and people with disabilities.

The development and implementation of the Coordinated Plan is overseen by the Human Service Transportation Coordination Task Force. The TPB established the Human Service Transportation Coordination Task Force ("Task Force") to develop and help implement a Coordinated Plan which must guide annual project selections. The Task Force is comprised of human service and transportation agency representatives from each TPB jurisdiction as well as consumers and private providers. Each year, the Task Force establishes priorities for the annual solicitations and assists with outreach.

Work activities include:

- Support the activities of the TPB Human Service Transportation Coordination Task Force;
- Review and implement findings and recommendations from the JARC and New Freedom Assessment;
- Coordinate special meetings on issues such as Medicaid transportation, low-income transportation needs or MetroAccess as requested;
- Develop priority projects for the 2012 solicitation for JARC and New Freedom projects; and
- Coordinate the activities of the coordination task force with the TPB Access for All Advisory Committee and the Private Providers Task Force; and
- Evaluate 5310 applications for projects in the Washington metropolitan area submitted to DDOT, VDRPT and MTA for consistency with the TPB's Coordinated Plan.

Oversight:	TPB Human Service Transportation Coordination Task Force
Cost Estimate:	\$114,800
Products:	Priorities for the 2012 JARC and New Freedom Solicitation
Schedule:	June 2012

## H. FREIGHT PLANNING

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

- Support the Regional Freight Subcommittee
- 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:
  - 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 Follow up on recommendations from the Regional Freight Forum held in FY2011.
  - o Advise the TPB and other committees in general on regional freight planning considerations for overall metropolitan transportation planning.
  - o Coordinate with federal, state, and local freight planning activities.
  - o Analyze available freight movement data for the region.
  - o Coordinate with TPB travel monitoring and forecasting activities on freight considerations.
  - o Examine truck safety issues.
  - o Develop the freight components of the 2012 update of the Constrained Long Range Plan (CLRP).
  - o Keep abreast of regional, state, and national freight planning issues.
  - o 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. Publish a periodic e-newsletter on regional freight planning issues.

Oversight:	TPB Freight Subcommittee
Cost Estimate:	\$150,000
Products:	Data compilation and outreach materials as needed; white paper(s) on technical issues as needed; structured interviews and summarized results
Schedule:	Bimonthly

I. METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING

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, primarily funded outside the UPWP.

Following experiences from the 9/11 attacks and other major incidents, transportation officials from Maryland, Virginia, the District of Columbia, and the Washington Metropolitan Area Transit Authority (WMATA), in partnership with the TPB, created the Metropolitan Area Transportation Operations Coordination (MATOC) Program. MATOC'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. Timely, accurate information enables operating agencies and the traveling public to make effective and timely decisions. By integrating systems' technologies, improving procedures and planning, and making accurate and timely transportation information available to the public, regional transportation agencies are able to make travel smoother and safer.

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.

In FY 2009, MATOC transitioned from pre-implementation system development activities to initial phase real-time operations activities, and a dedicated MATOC facilitator was hired. In FY 2010, MATOC further transitioned toward full operations with MATOC personnel facilitating improvement of standard operating procedures, participating in regional coordination during incidents, and assisting with exercises and after-action reviews.

Historically, MATOC operational activities have been paid for by a dedicated grant from the SAFETEA-LU federal transportation legislation, and are anticipated to be funded with other operations-eligible sources in the future. As a complement to the externally-funded operations activities noted above, this UPWP task is to provide ongoing TPB staff and consultant 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, Executive 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) Policy Task Force and MOITS Technical Subcommittee; MATOC focuses on short-range planning issues for traffic management, and MOITS focuses on mid-to-long-range planning for traffic management.
- 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 Policy Task Force and Technical Subcommittee



Cost Estimate: \$120,000

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

This work area is designed to ensure that TPB plans, programs and projects meet air quality requirements. The 1990 Clean Air Act Amendments require the performance of detailed technical analysis at the systems level to assess conformity of transportation plans and programs. Procedures and definitions for conducting the analysis, originally issued as EPA regulations in the November 24, 1993 *Federal Register*, were subsequently amended and issued, most recently in a March 2010 EPA publication; in addition, federal guidance has also been published at various times by the EPA, FHWA and FTA.

A work program to analyze the 2011 Constrained Long Range Plan (CLRP) and FY2011-16 Transportation Improvement Program (TIP) amendments for air quality conformity consistent with these regulations is now being developed. This work program will address ozone, wintertime carbon monoxide, and fine particles (particulate matter, PM<sub>2.5</sub>) requirements, including differing geographical boundaries, inventory time periods, and evaluation criteria by pollutant. The current schedule for adoption of the updated plan and TIP calls for work tasks to be completed, with the final report, response to comments, adoption by the TPB and subsequent transmittals occurring in November 2011. Subsequent major activities in FY2012 will include development and execution of a work program for the conformity assessment of the 2012 CLRP and FY2013 -18 TIP.

TPB procedures to address interagency and public consultation requirements, also originally specified in the November 1993 regulations, were formally adopted by the Board in September 1994. The current version of the consultation procedures, amended to reflect additional requirements in August 15, 1997 regulations, was adopted by the TPB in May 1998. These procedures address preparation of the annual UPWP and TIP and any updates to the regional plan or programs. The procedures involve timely announcement of upcoming TPB activities relating to conformity and distribution of relevant material for consultation purposes.

The FY2012 air quality conformity work program will include the following tasks.

1. Complete conformity analysis of the 2011 CLRP and the FY2012-17 TIP, including addressing any emissions mitigation needs, preparing a final report to document procedures and results and to address comments and testimony received, and documenting and organizing all data files for use in subsequent regional and corridor / subarea planning studies.
2. Keep abreast of federal requirements as updated air quality conformity regulations and guidance are issued, and revise work program elements as necessary.
3. Execute 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.

4. Prepare and execute a work program for analysis of the 2012 CLRP and the FY2013 - 18 TIP, using updated project inputs, planning assumptions, travel demand model, software, and emissions factor model, as each update is incorporated into the transportation and air quality planning process; prepare a draft report on the conformity assessment.
5. Review and comment on PM<sub>2.5</sub> hotspot analyses and project level conformity assessments performed by implementing agencies.
6. Coordinate 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.

Oversight:	Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees
Cost Estimate:	\$563,200
Products:	Final report on Air Quality Conformity Assessment of 2011 CLRP and FY2012-17 TIP; Preliminary materials on Air Quality Conformity Assessment of 2012 CLRP and FY2013-18 TIP.
Schedule:	June 2012

## B. MOBILE EMISSIONS ANALYSIS

In FY2012 technical work will continue on analyzing, refining and reporting mobile source emissions reductions from potential transportation emissions reduction measures (TERMs), and evaluating the performance of implemented TERMS associated with PM<sub>2.5</sub> and 8-hour ozone SIPs and air quality conformity assessments.

The FY2012 work program will consist of the following main activities:

1. Response to data requests for emissions rates, inventories, data documentation or technical assistance by governmental and private sector entities in support of technical studies or regional planning;
2. Processing of vehicle registration databases from the District of Columbia, Maryland and Virginia, performing necessary data “cleaning” and decoding, and development of MOBILE6.2 and MOVES distributions by vehicle type population, and age by jurisdiction;

3. Preparation of regional GHG emissions inventories using the new travel demand model (Version 2.3) and MOVES emissions model. Analysis of new transportation emissions reduction measures (TERMs) and examination of previous proposals in terms of bundling of strategies, second order demand effects and cost-effectiveness of strategies as part of climate changing planning;
4. Systematic testing of the MOVES model and preparation of the necessary model data inputs for use in SIP and air quality conformity analyses;
5. Technical support to Commuter Connections staff in developing implementation plans and performing evaluations of current and future TERMS; and
6. Providing technical assistance to TPB and MWAQC committees with updates to the ozone and PM<sub>2.5</sub> SIPs and in the development of mobile source emissions budgets; the technical assistance will be in the form of reviewing inventories prepared by DEP staff , participating in MWAQC technical and policy discussions and providing technical support to the DTP MOVES Task Force.

The FY2012 work program will also include funding for DEP staff in order to provide the following services:

1. Acquisition and processing of local input data from state air agencies;
2. Preparation of reports in response to TPB requests relating to air quality work activities;
3. Provision of regular updates to the TPB and its committees on the status of emissions and emissions reduction research / implementation strategies associated with all emissions source categories
4. Technical assistance to the TPB in the development / review of emissions factors required for mobile source emissions inventories associated with air quality conformity and SIP planning.

Oversight:	Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees
Cost Estimate:	\$640,100
Products:	Updated mobile source emissions inventories for criteria pollutants and for greenhouse gases; TERMS report; MOVES model inputs, operating procedures and outputs.
Schedule:	June 2012

## C. REGIONAL STUDIES

### Regional Transportation Priorities Plan

In September 2010, the TPB Regional Priorities Plan Scoping Task Force was established to determine a scope and process for developing a regional transportation priorities plan that will enhance the implementation of regional priorities. The task force met in October and December 2010 and in February and April 2011. In May and June 2011, the TPB will review and approve the scope and process for developing the plan, and incorporate the first year work activities into the FY 2012 UPWP. The plan development process is scheduled for a two-year period, beginning in July 1, 2011 with completion by July 1, 2013.

By the end of FY 2011, the 2010 CLRP baseline will be compared to the TPB Vision and Region Forward goals to assess major regional challenges and review current regional priorities identified to date.

The following activities are proposed for FY 2012:

- Specify and evaluate with respect to regional goals an initial land use/transportation scenario that incorporates proposed priorities.
- Using the 2.3 Travel Demand model and the latest version of the EPA Motor Vehicle Emissions Simulation Model (MOVES), analyze the benefits and costs of the scenario relative to the Vision goals.
- Specify and evaluate a variation or variations on this scenario that might improve its performance or increase its feasibility.
- Conduct outreach and public involvement activities to support the development of the new transportation priorities plan.

### Support for COG's Region Forward

In 2010, the TPB collaborated with the Metropolitan Washington Council of Governments (COG) Department of Community Planning and Services on a competitive grant submission to the HUD Sustainable Communities Planning Grant program. This grant submission outlined the strategy COG would employ to establish a regional plan for sustainable development. Though the grant was not awarded, COG continued to work on developing a regional plan for sustainable development as an extension of its existing efforts to solve key challenges in the region through its Region Forward program. Region Forward is supported by a voluntary compact signed by all of the COG member jurisdictions, and outlines a series of targets and indicators that measure progress towards creating and attaining a more accessible, sustainable, prosperous, and livable future. In FY 2011, TPB staff provided support for COG's Region Forward regional planning efforts involving transportation. In FY 2012, TPB staff will continue to provide support for these efforts.

## Prepare Grant Applications for US DOT Grant Funding Programs

In FY2010 and 2011, the TPB approved the submission of TIGER I and II competitive grant applications in response to US DOT funding program opportunities. In February 2010, the TPB was awarded \$58.8 million for a regional priority bus network under the TIGER I program. In August 2010, the TPB applied for funding towards a regional bike-sharing project under TIGER II. Although this application was not awarded, it was named in the top ten percent of projects that were recommended to be advanced for funding by DOT staff. In FY 2012, TPB staff will respond to promising opportunities for submitting project grant applications for USDOT grant funding programs, as approved by the TPB.

Oversight:	TPB
Cost Estimate:	\$566,300
Products:	Documentation of major regional challenges and proposed regional priorities; comprehensive benefit/cost analysis of initial scenario; project grant applications for USDOT grant funding programs as approved by the TPB
Schedule:	Documentation of challenges - September 2011 Documentation of proposed regional priorities - November 2011 Benefit/cost analysis of initial scenario and variations - June 2012

## D. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING PROCESSES

Under this work activity staff will 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.

The following work activities are proposed for FY 2012:

- Work with the Planning Directors Technical Advisory Committee (PDTAC) and the Metropolitan Development Policy Committee (MDPC) to develop and map updated Regional Activity Centers and Clusters (Complete Communities) using the Round 8 Transportation Analysis Zone (TAZ)-level growth forecasts. Prepare maps and associated data tables for these updated Regional Activity Centers and Clusters (Complete Communities).
- 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 update 2010 base year TAZ-level household

and population estimates using the results of the 2010 Decennial Census.

- 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 update and enhance COG's regional employment base file for 2010. This effort will include working with federal, state and local agencies to obtain the best available small area employment data (TAZ-level) for the metropolitan Washington region. It will also include the examination and likely procurement of employment data from a private sector data provider.
- 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 Cooperative Forecasts by jurisdiction and reconcile these updated local jurisdiction forecasts with the regional econometric benchmark projections.
- Work with the Cooperative Forecasting Subcommittee and the region's Planning Directors to develop updated Round 8 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 and air quality conformity analyses. Prepare updated Round 8 TAZ-level population, household, and employment forecasts for both COG member and non-member jurisdictions in the TPB Modeled Area.
- 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 forecasts and the Cooperative Forecasting process.
- 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

Estimated Cost: \$806,800

Products: Coordination of Land Use and Transportation Planning in the Region, Update of Regional Planning Databases, Mapping of Updated Regional Activity Centers, Development and Distribution Information and Technical Reports.

Schedule: June 2012



## 4. DEVELOPMENT OF NETWORKS AND MODELS

### A. NETWORK DEVELOPMENT

The Network Development work element addresses the updating of transportation system inputs (i.e., networks) to the regional travel demand model which supports a number of regional and project planning studies. The updates reflect highway and transit project phasing specified in the six-year Transportation Improvement Program (TIP) submitted by the state and local transportation agencies each year. Possible updates to the CLRP are also considered. Network files are typically prepared first for a base year and then for a series of forecast years, as needed for air quality planning.

During FY2012, a new regional travel demand model known as Version 2.3 will be transitioned out of development and into production use. The model will be applied first for the Air Quality Conformity Determination of the FY 2011 CLRP and FY 2011-2016 TIP amendments. The Version 2.3 model will utilize a new 3,722 Transportation Analysis Zone (TAZ) system. During FY 2011, staff has constructed highway and transit networks over the new TAZ system for the years 2007 and 2040. These developmental networks will be used as a basis for network development activities in FY 2012.

TPB staff plans to update the base (2011) year transit network to reflect the most current operating conditions. The update will require obtaining the most recent transit scheduling and routing data obtained from the local transit providers in the Washington, D.C. region. These updates will, in turn, be incorporated into forecast year transit networks subsequently developed. Staff will next update highway and transit network files in accordance with the latest TIP and CLRP elements, and in accordance with Version 2.3 model requirements

Staff has also been working to develop more advanced GIS-based procedures to assist in the development and maintenance of Version 2.3 networks. In consultation with the GIS and Models Development staff, additional resources will be devoted toward improving the GIS-based procedures, specifically: 1) documenting the existing database and network coding procedures that are currently being used, 2) implementing improvements to the database software, where feasible, on an “as needed” basis, and 3) investigating opportunities to merge data from other geographically referenced data onto the regional highway links (for example, bus routing data from local transit providers or INRIX highway speed data) in order to improve network accuracy or to aid in ongoing model validation activities.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$ 769,700
Products:	<ul style="list-style-type: none"><li>- A series of highway and transit networks reflecting the latest TIP and Plan and compliant with the Version 2.3 travel model, with documentation.</li><li>- Technical documentation describing the TPB's existing GIS-based network coding practices and</li></ul>

procedures.

Schedule: June 2012

## B. GIS TECHNICAL SUPPORT

Under this work activity staff will provide Geographic Information System (GIS) data and technical support to users of the COG/TPB GIS for many important 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.

The following work activities are proposed for FY 2012:

- Provide ongoing maintenance and support of enhanced GIS-based transportation network management and editing tools and TPBMAN geodatabase.
- Enhance GIS-based transportation network management and editing tools based on user experience.
- 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

Estimated Cost: \$548,800

Products: Updated GIS software, databases, User

documentation, Training materials, Support and enhancement of GIS procedures to develop and manage transportation networks.

Schedule: June 2012

### C. MODELS DEVELOPMENT

The role of the TPB's models development program is to maintain and improve technical procedures used to forecast travel demand in the Washington, D.C. region. The program has been designed to manage uncertainty by structuring model improvement activities among five concurrent tracks: 1) application, or short-term improvements to the model; 2) methods development, or long-term improvements to the model; 3) research; 4) data collection; and 5) maintenance activities. These tracks are established to occur over a multi-year period, allowing for longer-term improvements to proceed off-line while the application model is maintained to support immediate planning needs.

During FY 2011, TPB staff culminated a two-year effort to calibrate the Version 2.3 travel model on the newly developed 3,722-TAZ area system using the 2007/2008 COG/TPB Household Travel Survey and several other data sources. During FY-2012, models development activities will focus on the ongoing refinement of the Version 2.3 model, in cooperation with the TPB's Travel Forecasting Subcommittee (TFS). The refinement will include possible updates to existing modeling steps, procedures to facilitate the development of modeling inputs, and the collection and analysis of new data. Staff will also support the application of Version 2.3 for regularly scheduled regional air quality planning purposes. This support will include training in the use of the Version 2.3 travel model. TPB staff may also support a consultant contract to explore advanced modeling paradigms, such as activity-based models, as described below.

The models development program has benefited in recent years by allocating resources for consultant assistance supporting both short-term and long-term updates to the regional travel model. Beginning in FY2006, an annual task-order contract was established and budgeted for \$150,000 a year. Entitled "Assistance on Travel Demand Model Development and Application," this contract supports focused research on modeling practices across the U.S. and provides input into various elements of the models development work program. The contract was designed to be renewable on an annual basis, for up to three years with a given consultant. In late FY 2011, this contract will be rebid for the third time, ensuring the continuation of this work into FY 2012.

Beginning in FY 2005, the UPWP has alluded to a work element for consultant assistance on longer-term modeling improvements, specifically "to develop a framework for tour-based and/or activity-based models in the future."<sup>1</sup> In fact, a growing number of MPOs have been developing tour-based and/or activity-based models (ABMs). However, despite the growing interest in these advance models, there is much debate in the modeling community about the costs and benefits of these newer techniques.

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<sup>1</sup> National Capital Region Transportation Planning Board, *FY 2005 Unified Planning Work Program for Transportation Planning for the Washington Metropolitan Region* (Washington, D.C., March 17, 2004), 2-34.

Consequently, although TPB staff has set aside some funds for investigating ABMs, up to this point, none of these funds have been spent. Instead, they have been carried over for several years, with the hope that current research efforts, such as the Association of Metropolitan Planning Organization (AMPO) study of advanced travel models, might shed some light on whether ABMs represent the best use of scarce resources for updating the travel model and on how best to proceed with deploying such an effort. The AMPO study, which is funded by about ten MPOs, has resulted in two draft reports, but these are not yet available for public dissemination. Nonetheless, a final report is scheduled for February 2011. Given these developments, \$300,000 will be carryover into FY 2012. If a request for proposals (RFP) is released in FY 2012 for consultant assistance, there would be some TPB staff resources devoted to supporting this effort.

A list of short-term models development activities and maintenance activities planned for FY 2012 are shown below. The short-term models development activities are focused on the recently released Version 2.3 travel model on the 3,722-TAZ area system. This list was developed assuming that the ABM project would not take place in FY 2012. However, the current working assumption is that the ABM contract will go forward in FY 2012, and, under this scenario, TPB staff will likely not be able to complete all of the short-term models development work tasks listed below.

### **Short-term models development activities**

- Depending on the findings from the scan of best modeling practice, there may be new data collection efforts that need to be planned or carried out. Examples could include: 1) Continued analysis of travel time data on freeways (from INRIX), with possible use in model calibration and validation; 2) Gathering data about special markets in the region to adjust trip rates in the model.
- Continue with sensitivity testing with the Version 2.3 model and possibly implement ongoing refinements to the Version 2.3 mode in cooperation with the TFS. Support the production use of the Version 2.3 model for regional studies and possibly for project planning needs.
- Continue the ongoing use of INRIX highway speed data for informing parametric changes to the Version 2.3 model.
- Supporting the integration of the travel demand model with the new EPA MOVES model for estimating mobile emissions.
- Investigate the development of an airport model that includes a mode choice model component. The existing airport access forecasting process addresses auto driver travel only.
- Investigate the availability of data that could potentially be used for modeling a home-based university and/or home-based school trip purpose.
- Begin an evaluation of the exogenously generated visitor/tourist auto driver trip data, to see if the data fully account for trips made by visitors within the region. If enhanced funding were to become available, begin planning a visitor travel survey and a special events survey, for use in developing a visitor model and a special events model.
- Representation of fares in the model: Consider developing an explicit representation of transit fares by provider and mode.

- Investigate statistically estimating the time and cost coefficients used in the mode choice model.
- Consider establishing an explicit relationship between bus speed and highway speed.

### **Maintenance activities**

- Promoting guidance of the model application through information sharing, documentation, and training
- Staff the Travel Forecasting Subcommittee (TFS)
- 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). Activities will include: 1) Managing and supporting the consultant contract to perform a scan of best modeling practice; 2) Continuing participation on a national MPO panel, the AMPO Travel Modeling Work Group, established to recommend practices in travel demand modeling; 3) Participating in relevant organizations and activities, such as the Transportation Research Board (TRB), the Travel Modeling Improvement Program (TMIP), the Federal Transit Administration (FTA) guidelines on modeling for New Starts, the Institute of Transportation Engineers (ITE), Citilabs and other vendors of travel demand forecasting software.
- Support computer software and hardware used to do travel demand forecasting
- Training users in the use of the Version 2.3 travel model
- Provide support for data requests

Oversight: Travel Forecasting Subcommittee

Cost Estimate: \$1,071,200

Products: Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process. Possible work plan and/or initial model component for an activity-based model

Schedule: June 2012

### **D. SOFTWARE SUPPORT**

This work element supports the maintenance of the TPB microcomputer-based travel demand forecasting model set as used in applications work, and maintenance of the mobile source emissions factor model including the emissions factor interface and post-processor as used in air quality conformity and state implementation plan (SIP) work. Activities performed under this element include: (1) development and testing of revisions and upgrades to software currently in use, (2) tests of new software including micro simulation, text editor and scripting software, the production version of EPA's motor

vehicle emission simulator, and (3) data storage, retrieval and transfer systems for possible adoption. Training of DTP staff in use of models and adopted systems is also included in this element.

Staff monitors the development of microcomputer hardware and other microcomputer-based transportation software as well as data storage, retrieval and transfer systems. Staff evaluates such software and systems through in-house testing on a demonstration basis or through acquisition as warranted.

Oversight:	TPB Technical Committee
Cost Estimate:	\$178,900
Products:	Operational travel forecasting model set and new software selected / installed in FY 2012; Operational emissions factor models and post-processor interface; Operational data storage and retrieval systems; Operational data transfer systems to serve inside and outside users
Schedule:	June 2012

## 5. TRAVEL MONITORING

### A. CORDON COUNTS

Monitoring of the volume of period weekday travel entering the Central Employment Area of the region during the AM Peak Period and exiting the Central Employment Area during the PM Peak Period is performed on a 3-year cycle. In the spring of 2012, staff will collect traffic data and coordinate transit data collection among various transit providers for the 2012 Central Employment Area Cordon Count. Data collection in the inbound direction will take place during the AM peak period and data collection in the outbound direction will take place during the PM peak period. Data collected will include vehicle volumes by time of day, vehicle classification and auto occupancy, and transit passenger volumes. Data will be edited, checked for reasonableness, and readied for processing. The end product of this task will be data files ready to process in at the start of FY 2013.

Oversight:	Travel Forecasting Subcommittee
Estimated Cost:	\$250,800
Products:	Data Files from the Spring 2010 Central Area Cordon Count for processing to produce a report in FY 2013.
Schedule:	June 2012

### B. CONGESTION MONITORING AND ANALYSIS

Congestion Monitoring supplies data for the Congestion Management Process (Item 2A) and the Models Development (Item 4C). The program monitors congestion on both the freeway and the arterial highway systems. For freeways and limited access highways in the region, aerial surveys are conducted on a periodic basis to monitor the performance of the system during: 1) peak periods, and 2) midday during the week, and on weekends. AM and PM peak period vehicular density data on the freeway / limited access facilities was collected during Spring 2011. This survey is conducted every three years; it will be the seventh such survey in a series dating back to 1993.

In FY2012 the consultant will analyze the data and prepare a limited access highway system performance report. Staff will work with the consultant and report on the following changes to system:

- Top 10 congested locations.
- Segments with substantial improvements
- Segments with substantial degradation
- Changes to important facilities over time (past four surveys).

Congestion on the arterial highway system has been monitored since 2000 on a rotating basis. The arterial street system under monitoring -- primarily from the National Highway System -- was divided into three groups. Each year field work was conducted for one group. In this way, each arterial facility participating in the program was monitored once every three years. Field data are collected and subsequently analyzed. A report

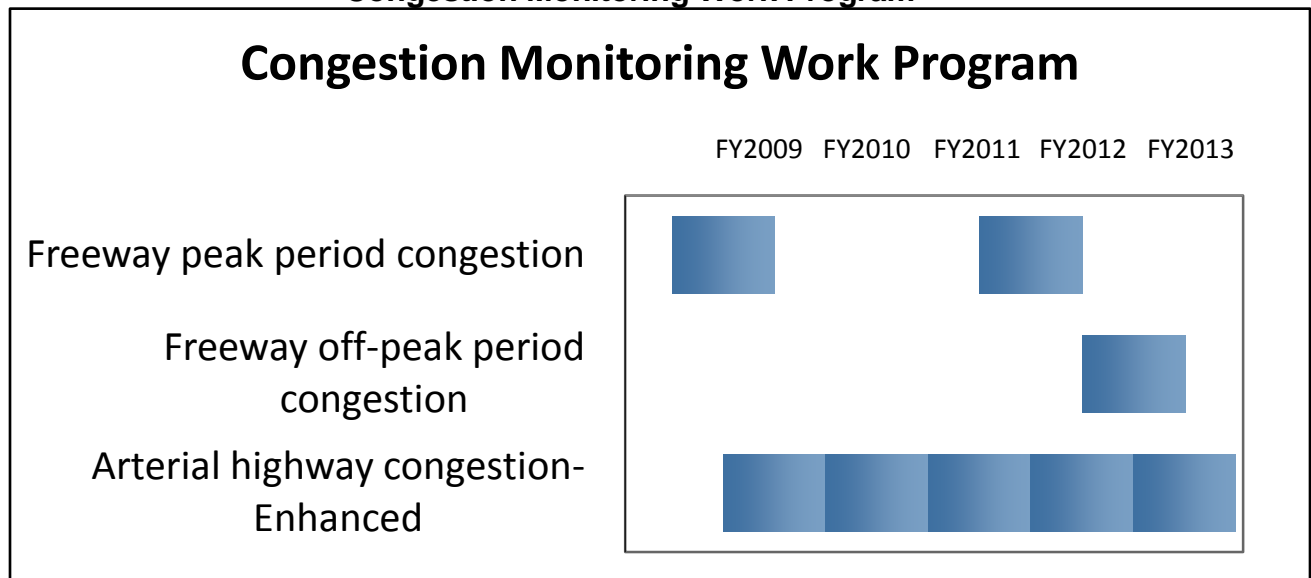
documenting the findings of the analyses is prepared around the end of the fiscal year. In FY2011 a full cycle of arterial street monitoring would have been completed since 2000.

In recent years, additional data sources have become available from private sector sources. Private sector firms have, with permission, been tracking traffic movements through the tracking of geographic positioning system (GPS) devices in vehicles (especially commercial fleet vehicles) or from similarly equipped mobile phones, and have been making their data archives available to the public sector for traffic analysis purposes.

For FY2012, DTP staff will be evaluating the applicability of the data and the current method of data collection vis-à-vis new demands for technical assistance, regional travel demand model development and other applications. Such an evaluation was deemed necessary by the availability of new data and new data collection technologies such as GPS, Cellphones and Bluetooth. Upon selecting a data collection methodology, data collection will resume as necessary.

Oversight:	MOITS Technical Subcommittee
Estimated Cost:	\$350,000
Products:	FY2011 Arterial Highway System Performance Report Evaluation of Arterial Highway System Congestion Monitoring Methods/Selection of Preferred Method
Schedule:	June 2012

**Figure 8  
Congestion Monitoring Work Program**





Note: Freeway peak congestion monitoring is on a 3 year interval and off-peak monitoring is on a 6 year interval.

### C. TRAVEL SURVEYS AND ANALYSIS

#### **Household Travel Survey**

In FY 2010, a public release version of the 2007/2008 Regional Household Travel Survey data was produced for use in several important TPB planning activities and for use by TPB participating agencies in their transportation planning activities. Staff also provided these users with additional technical documentation and assistance in the use and analysis of these survey data files. In FY 2012, staff will continue to support users of 2007/2008 Regional Household Travel Survey data and update user documentation as required. Further, it is proposed that new household travel survey data be collected from 2,400 households in focused geographic subareas of the region to permit more intensive analysis of specific growth and transportation issues. This proposed additional data collection is in response to the need expressed by local jurisdiction users of the household travel survey to have additional household samples in smaller geographic subareas to analyze specific aspects of daily travel behavior in these smaller geographic areas.

The following work activities are proposed for FY 2012:

- Provide data, documentation, and technical support to users of 2007/2008 Regional Household Travel Survey and the Geographically-Focused Household Surveys conducted in 2011. Update of survey data files and user documentation as required.
- Continue to mine data collected in the 2007/2008 Regional Household Travel Survey the Geographically-Focused Household Surveys conducted in 2011 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 TPB modeled area.
- Collect household travel survey data for 2,400 households in six focused geographic subareas of the region for more intensive analysis of specific growth and transportation issues. Examples of focused geographic subarea could include Metrorail station areas of a specific type, highway corridors with recent or planned major improvements, proposed light rail study area, or regional activity centers of with specific characteristics. *Proposed focused geographic subareas for FY 2012 include: (1) Friendship Heights (in DC and Montgomery County, MD), (2) New York Avenue Corridor in DC, (3) St Charles in Charles County, MD, (4) National Harbor in Prince George's County, MD and Eisenhower Avenue Corridor in Alexandria (5) East Falls Church – West Falls Church Metrorail Station areas in Arlington, Falls Church and Fairfax County, VA and (6) the Dulles North Area in Loudoun County. The proposed geographic subareas will be reviewed by the TPB Technical Committee and local jurisdiction planning staff*

Oversight:	Travel Forecasting Subcommittee
Estimated Cost:	\$706,300
Product:	Household Travel Survey Data Collection and Processing, Household Travel Survey Analyses, Information Reports and Technical Memorandum, Maintenance of Travel Survey Data and Documentation
Schedule:	June 2012

#### D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

Efficient access to a comprehensive data set containing current and historic data on the characteristics and performance of the region's transportation system is vitally important for transportation planning, air quality analysis, models development, congestion management and project evaluations. Under this work item state will continue to work with local, state, WMATA and other regional agencies to transfer data to and from the Regional Transportation Data Clearinghouse and to update the Data Clearinghouse with updated highway and transit performance data as these data become available.

The following work activities are proposed for FY 2012:

- Update Clearinghouse data files with FY10-11 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.
- Update Regional Transportation Data Clearinghouse regional highway network links with newly obtained and processed INRIX speed data available for use by the TPB through the I-95 Corridor Coalition's contract with INRIX Inc. and other contracts.
- 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.

- Field test an ArcGIS server-based application to distribute Regional Transportation Clearinghouse Data to TPB participating agencies via a lightweight web browser application.

Oversight: Technical Committee

Estimated Cost: \$317,900 total

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

Schedule: June 2012

## For FY 2012 UPWP

### 6. TECHNICAL ASSISTANCE

The TPB work program responds to requests for technical assistance from the state and local governments and transit operating agencies. This activity takes the form of individual technical projects in which the tools, techniques, and databases developed through the TPB program are utilized to support corridor, project, and sub-area transportation and land use studies related to regional transportation planning priorities. The funding level allocated to technical assistance is an agreed upon percentage of the total new FY 2012 funding in the basic work program. The funding level for each state is an agreed upon percentage of the total new FTA and FHWA planning funding passed through each state. The funding level for WMATA is an agreed upon percentage of the total new FTA funding. The specific activities and levels of effort are developed through consultation between the state and WMATA representatives and TPB staff.

Technical assistance projects anticipated in FY 2012 are described below. Total funds allocated to the District of Columbia, Maryland, Virginia, and WMATA for technical assistance are shown in Table 2. Work on each project is directed by staff from the respective state DOT or WMATA and is conducted by TPB staff or consultants as noted.

#### A. DISTRICT OF COLUMBIA

##### 1. Program Development, Data Requests and Miscellaneous Services

This project is established to account for staff time spent in developing scopes of work for requested projects and in administering the resulting work program throughout the year. Work activities involve meeting with DDOT staff to discuss proposed projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and progress reporting throughout the projects.

Additionally, this project establishes an account to address requests from DDOT which are too small or too short-lived to warrant separate scopes of work. Requests may include staff time to participate in technical review committees and task forces and execution of small technical studies.

Cost Estimate:	\$10,000
Product:	specific scopes of work
Schedule:	on-going activity

##### 2. Traffic Counts

The purpose of this task is to perform continuous 48-hour traffic volume machine counts and 7-day vehicle classification counts at sites that are part of DDOT's updated HPMS 2010+ Reassessment traffic counting program. A total of approximately 200 traffic counts will be performed citywide at locations specified by DDOT's HPMS Coordinating

Committee. These counts will include quality control checking and tabulation and analysis of data collected in FY 2012. This also includes 2010 Traffic Volume Map Updates using dynamic Google Map.

Cost Estimate: \$200,000  
Product: Machine traffic counts  
Schedule: June 2012

### 3. Bicycle Counts

The purpose of this project is to collect counts of bike traffic, along with certain related information, at a series of locations around the District of Columbia. This data will be used to measure bike traffic over time and to measure the effectiveness of new bike lanes and trails.

Cost Estimate: \$58,000  
Product: Bike Counts & Technical Report  
Schedule: Data Collection - Spring 2012  
Technical Report - June 2012

### 4. Curbside Data Collection

The purpose of this project is to continue conducting seasonal analysis of curbside parking space occupancy and turnover rates within designated sections of the District of Columbia. During this fiscal year data will be collected in: (i) Columbia Heights in Ward 1 in the area bounded by Monroe Street, NW, 11th Street, NW, Girard Street, NW and 16th Street, NW; and (ii) the Ballpark District in Ward 6 around the Washington Nationals Ballpark in southeast and southwest Washington, DC. The area for this project is bounded by: Pennsylvania Avenue, SE; 9th Street, SE; the Frederick Douglass Bridge; and 9th Street, SW. Through this project DDOT will continuously monitor streets within these boundaries during weekdays and weekends, from approximately noon to 10 pm. Data will be collected using license plate reader technology similar to those used by the District of Columbia Department of Public Works (DPW) Parking Enforcement Management Administration (PEMA) and then analyzed to determine parking space occupancy and turnover rates.

Cost Estimate: \$20,000  
Product: Files showing per block occupancy and turnover rates provided on Excel Spreadsheets and Graphs of Geographic Area Data and a Technical Report for both Pilot Zones  
Schedule: October 2011

## 5. Multimodal Coordination for Bus Priority Hot Spots

In the spring of 2010, WMATA, MDOT, DDOT and VDOT completed a long range planning study that identifies a 20 year vision for surface transit enhancements entitled the Priority Corridor Network (PCN) Running-way Evaluation Study.

A follow-up study will be jointly funded by MDOT, DDOT, VDOT and WMATA and it will build on WMATA's previous study by examining both WMATA and local bus (e.g., ART, DASH, Ride On etc.) service frequencies and speeds, to identify a truly "regional" hot spot prioritized top 10 list for each of the three states.

Cost Estimate:           \$30,000

Product:                 Prepare detailed cost-benefit analysis reports on potential for bus priority improvements at select bus operations "hot-spots"

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: \$316,000

## B. MARYLAND

The Maryland Technical Assistance Program has been modified for FY2012 to reflect more accurately current and future planning activities carried by MDOT, SHA, other modal agencies and local jurisdictions. The work program below was jointly developed by DTP, MDOT, and SHA.

### 1. Project Planning Studies

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

Cost Estimate:           \$130,000 total

Schedule:                On-going activity

### 2. Feasibility/Special Studies

This work task will provide funding to support technical support on feasibility/special studies as requested by MDOT, SHA and other modals. Work may include but not limited to technical support in ongoing corridor/subarea studies, initiation of new

studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. Project authorizations may occur throughout the fiscal year as priorities dictate.

Cost Estimate: \$130,000 total

Schedule: On-going activity

### 3. Transportation Performance Measures

- Project Level Evaluation: SHA requires measurable results on system performance benefits in order to compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. The results could be expressed in terms of Levels of Service, Travel Delay and mobility criteria, which will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects.
- System Wide Evaluation: This work effort is designed: (1) to provide MDOT and SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, and (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data). TPB staff will periodically brief MDOT and SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives in this area.
- Traffic Impacts Evaluation: This work effort is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria will be assessed for a variety of projects to appropriately consider their impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects.

Cost Estimate: \$126,000 total

Schedule: On-going activity

### 4. Training /Miscellaneous Technical Support

This work task will account for coordination on periodic updates of the transportation networks, land use files, and the model itself with MDOT, SHA and other modals. This task will also account for various presentations and training activities for MDOT, SHA and other modal staff on the latest regional data and modeling procedures.

Staff will continue to coordinate with MDOT, SHA and other modal staff on applications of modeling procedures on projects carried at the state level.

Cost Estimate: \$65,000 total

Schedule: On-going activity

5. Statewide Transportation Model Support

This project is designed to assist SHA in the development of, and the evaluation of results from the Maryland Statewide Transportation Travel Model. The model is being developed in order to analyze travel at a macroscopic level, i.e., statewide / multiple states, with a view to assessing impacts in Maryland of alternative growth scenarios and other forecast assumptions.

Cost Estimate: \$65,000 total

Product: Technical Memoranda

Schedule: June 2012

6. Transportation / Land Use Connections Program

The Transportation / Land Use Connections (TLC) program is an effort to provide technical assistance to local governments in the Washington region in order to facilitate integrating land use and transportation planning at the community level. Begun as a 6 month regional pilot program in January 2007, the project was very well received. It was not only continued in subsequent years, but Maryland supplemented the regional effort with additional funds. This project continues those efforts by similarly reserving such supplemental funds to be distributed in fiscal year 2012.

Cost Estimate: \$130,000 total

Product: Grant awards, technical reports from contractors

Schedule: June 2012

TOTAL MARYLAND COST ESTIMATE: \$646,100 total

C. VIRGINIA

1. Data/Documentation Processing

This project is established to process requests for data/documents from Northern Virginia and to account for TPB staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year.



Cost Estimate: \$15,000  
Product: data, documentation, scopes of work, progress reports  
Schedule: on-going activity

## 2. Northern Virginia HOV Facilities Monitoring and Data Collection

VDOT desires a monitoring program of the limited access high-occupancy vehicle (HOV) facilities in Northern Virginia during the fall of fiscal year 2012. The HOV corridors to be monitored will be coordinated with COG.

Monitoring will consist of the following data collection projects:

- Peak direction occupancy and classification counts (from 5 AM to 10 AM inbound and 3 PM to 8 PM outbound) at a set of stations along the selected facilities. These stations will include the major count locations as specified by VDOT.
- Off-peak direction traffic volume and classification counts during the peak period (same as above) at selected locations to be performed in the spring of 2011 in Northern Virginia.
- Staff will continue to research travel time runs using GPS technology in Northern Virginia.

Data will be transmitted to VDOT after field data collection work, editing, and reasonableness checking have been completed. Preliminary data will be transmitted to VDOT within one week of the count so that a timely determination can be made regarding the need for a re-count.

Cost Estimate: \$ 275,000  
Products: Data files transmitted to VDOT  
Schedule: Fall counts completed by Nov. 30, 2011  
Spring counts completed by June 15, 2012

## 3. Travel Demand Modeling

Supports requests from VDOT, VDRPT and NoVA localities related to demand forecasting and project development activities. Example of work activities include: assistance with documentation, training and customization of TPB's Version 2.3 model for VDOT/NoVA use; and HOV/HOT Lane project development related analyses.

Cost Estimate: \$74,400  
Products: as specified

Schedule: on-going

#### 4. Regional Survey- Analysis and Report

Mine the results of the regional and NoVA surveys to extract travel, traffic, demographic and related data specifically for NoVA jurisdictions and report on NoVA trends/patterns. Data elements mined includes: State of the Commute, 2007/2008 HH Travel Survey, and Round 8.2a Cooperative Forecasts.

Cost Estimate: \$ 60,000

Product: Analysis results and reports

Schedule: June 2012

#### 5. Travel Demand Management and Non-Motorized Travel

Assist in: (1) monitoring, and evaluation of non-motorized travel facilities (Bike/Ped) including conducting counts and analyses and preparing maps; (2) development of targeted TDM strategies for various NoVA locations as part of VDOT/VDRPT's sub-regional planning efforts.

Cost Estimate: \$75,000

Product: Data files and GIS maps

Schedule: June 2012

#### 6. Regional and Sub-regional Studies

Technical work /analyses associated with planning studies undertaken by VDOT/VDRPT/NoVA localities, such as: **(1) the NVTA's TransAction 2040 Plan;** **(2) WMATA's PCN-Hot Spots study,** (3) VDOT's two HOV/HOT lanes projects in NoVA. The Northern Virginia Transportation Authority (NVTA) is updating its regional long range transportation plan (TransAction 2030). While consultant support to local jurisdiction technical staff will be available, there may be specific tasks on which COG staff support may be sought. Examples of such tasks are attending product output meetings with the consultant team and the TransAction 2040 Subcommittee, attending public workshops, providing input on draft documents, and providing modeling support (primarily regarding the TPB regional conformity model). These tasks will be coordinated with COG staff as they are identified.

Cost Estimate: \$14,200

Product: Technical support as requested

Schedule: June 2012

TOTAL VIRGINIA COST ESTIMATE: \$513,600

D. WMATA

Program Development

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

Cost Estimate: \$10,000

Schedule: on-going activity

Miscellaneous Services

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

Cost Estimate: \$8,500

Schedule: on-going activity

Multi-Modal Coordination for Bus Priority Hot Spots

In the spring of 2010, WMATA, MDOT, DDOT and VDOT completed a long range planning study that identifies a 20 year vision for surface transit enhancements entitled the *Priority Corridor Network (PCN) Running-way Evaluation Study*. Near term implementation of this vision is aimed at identifying opportunities for running-way improvements that could increase average bus speed and on-time performance at selected segments of the network. These "hot spots" are areas in which modest investments in bus priority improvements could significantly improve bus operations and reduce jurisdictional operating subsidies. Through this study, WMATA conducted an initial identification and prioritization of hot spots on the Metrobus network, utilizing an analytical method developed to correlate existing Metrobus frequencies and slow bus speeds to help inform the near term PCN implementation phase.

This follow-up study will build on the methodology from WMATA's previous study by examining both WMATA and local bus (e.g., ART, DASH, Ride On, etc.) service

frequencies and speeds, to identify a truly “regional” hot spot prioritized top 10 list for each of the three states.

TPB staff, consultants, or a combination thereof, will work with WMATA and State DOT staff to 1) identify the causes of slow bus speeds at each hot spot, 2) recommend and scope bus priority measures that will improve average bus speeds on the identified segments, and 3) quantify the anticipated capital costs and operating cost savings the recommended bus priority measures would provide. For hot spots on the Metrobus network, the quantification of operating cost savings will include quantification of the WMATA subsidy reduction a local jurisdiction implementing the specific improvements could expect for each improved hot spot.

In addition to the involvement of WMATA and local bus staffs, involvement and assistance will be needed from state and local roadway agency staffs for identifying hot spots, providing input on opportunities for implementation of bus priority improvements, and scoping possible costs, savings, and impacts from the roadway management and traffic engineering perspective.

This \$126,000 project will be undertaken in conjunction with concomitant efforts in the Technical Assistance tasks of DDOT, MDOT, and/or VDOT; WMATA has requested DDOT, MDOT, and VDOT provide a match of at least \$30,000 in each of their Technical Assistance programs as part of this overall effort.

Hot spot identification, prioritization, mitigation and operating subsidy savings calculations will be coordinated through the TPB’s Management, Operations and Intelligent Transportation Systems (MOITS) Technical Subcommittee with assistance from the Regional Bus Subcommittee. While the budget proposed above will not be sufficient for identifying and analyzing bus priority measures for each of the Top 10 segments in all three states, the budget will address as many of the hot spot locations as possible, in order of priority established under the guidance of the involved agencies through the MOITS Technical Subcommittee and the Regional Bus Subcommittee. In the event of a state providing additional funds beyond the recommended \$30,000, the additional contribution will be utilized in the state that provides it.

Cost Estimate:	\$126,000 (in conjunction with concomitant tasks in the DDOT, MDOT, and/or VDOT Technical Assistance programs)
Product:	Prepare detailed cost-benefit analysis reports on potential for bus priority improvements at selected bus operations “hot spots”
Schedule:	Complete work by June 2012

### Bus Passenger Counts in Support of the 2012 Central Employment Area Cordon Count

TPB Staff will conduct Metrobus and Circulator ridership counts as apart of the Spring 2012

Central Employment Area Cordon Count. Bus ridership data collection will be performed at approximately 40 cordon monitoring stations for inbound buses (toward the D.C. core) between 5 am and 10 am, outbound buses (away from D.C. core) between 3 pm and 8 pm and at the Potomac River crossings in both directions between 5-10 am and 3-8 pm. Data collection will include date of count, weather conditions, time of observation, bus number, route number and number of riders. The count will not include local transit operators or Metrorail riders. Bus ridership counts will be added to the Central Employment Area Cordon Count data set.

Cost Estimate: \$50,000

Schedule: May 2012

TOTAL WMATA COST ESTIMATE:        \$194,500

## **7. CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM**

The purpose of the CASP program is to provide a regional process that supports the planning, development and operation of airport and airport-serving facilities in a systematic framework for the Washington-Baltimore Region, which includes the region's three major commercial airports: Thurgood Marshall Baltimore Washington International Airport, Ronald Reagan Washington National Airport, and Washington Dulles International Airport. Oversight of the program is the responsibility of the TPB Aviation Technical Subcommittee. The elements of the multi-year CASP work program to be performed during FY 2012 are as follows:

### **Ground Access Travel Time Study – Phase 2**

The Ground Access Travel Time Study Update will permit analysis of regional travel time trends to the region's three commercial airports and analysis of any new transportation improvements. Phase 2 will conclude in FY 2012 with the completion of data collection, analysis, and documentation of findings.

Cost Estimate:                      \$ 85,000

### **Update Ground Access Forecasts – Phase 2**

Staff will continue work on the Update of the Ground Access Forecasts begun in FY 2011. In FY2012, staff will complete Phase 2, which will result in forecasts of ground access trips to the three commercial airports by time of day and mode of travel. These forecasts will be used as inputs for the update of the TPB's Constrained Long Range Plan.

Cost Estimate:                      \$ 100,000

### **Ground Access Element Update – Phase 1**

This update to the Ground Access Element of the Regional Airport System Plan will provide an analysis of current and forecast ground access concerns at the region's commercial airports. The project will also integrate airport system ground access and facility planning into the overall regional transportation planning process for the National Capital Region and include recommendations for improving ground access to the region's airports. In FY 2012 staff will complete Phase 1 of the Ground Access Element Update resulting in a detailed supply analysis of regional airport ground access services and facilities.

Cost Estimate:                      \$ 40,000

### **Conduct 2011 Regional Air Passenger Survey**

The purpose of the *Washington-Baltimore Regional Air Passenger Survey* is to collect information about travel patterns and user characteristics of air passengers using the three major commercial airports serving the region. All work for this project will be performed in FY 2012 and will be jointly funded by the Metropolitan Washington Airports Authority and the Maryland Aviation Administration of the Maryland Department of Transportation. Tasks

will include survey design, sample generation and data collection. The survey will provide the basis for analysis of major changes in airport use in the region and provide planning data needed to support decisions for facility and ground access improvements.

Cost Estimate: \$300,000

### **Process 2011 Air Passenger Survey – Phase 1**

Processing the data collected in the 2011 Regional Air Passenger Survey will be carried out in two phases. Phase 1 will begin in FY2012. Specific tasks for this phase include data entry, editing and conducting logic checks of the data, and geocoding the data to small area transportation analysis zones. Completion of this phase will result in a final database of the 2011 survey results.

Cost Estimate: \$ 85,000

TOTAL CASP COST ESTIMATE: \$610,000

## **8. SERVICE/SPECIAL PROJECTS**

In addition to the TPB basic work program in the UPWP and the Continuous Airport System Planning (CASP) program, service work or special technical studies as specified in contracts between the transportation agencies and COG may be included in the UPWP. Services or special projects are authorized and funded separately by the transportation agencies.



**IV. PROPOSED FY 2012 STATE TRANSPORTATION AGENCY  
STATE PLANNING AND RESEARCH PROGRAMS (SPR)**

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**District of Columbia Department of Transportation**  
**State Planning and Research (SPR) Program Elements Supporting**  
**the Washington Area Work Program FY 2012**

**Systems Planning:** Review transportation plans and coordinate planning activities for major transportation projects; Manage and monitor the progress of all transportation studies; Organize public involvement activities and meetings with residents, businesses and visitors of the District; and educate the public on bicycle and pedestrian safety.

**Strategic State and Regional Planning:** Develop and implement the Annual State Planning Work Program describing work to be performed in FY2011; Manage planning efforts for the development of the Transportation Improvement Plan (TIP) and the State Transportation Improvement Plan (STIP); Implement the Unified Planning Work Program (UPWP); and optimize fiscal resources to meet Federal Highway aid and the District capital program investments.

**Environment Excellence:** Review project for environmental compliance and address issues as they relate to environmental planning and coordination; Coordinate with the District Department of the Environment on air quality initiatives; and serve as the Liaison for the Air Quality Program.

**Context Sensitive Solutions:** Responsible for the review and comment on transportation impact plans, development projects and zoning site plans and the review of planning projects.

**Data Collection and Analysis:** Protect the quality of the District's streets, bridges, tunnels, alleys, and sidewalks; Prepare highway statistical data reports to comply with federal requirements; Maintain the functional classification of local highway systems, mileage certification reporting, inventory and condition assessment of all assets and test and evaluates all construction materials used; and develop improvements to traffic flow, minimize pollution and improve pedestrian and vehicular safety.

**Traffic Safety Data Collection:** Perform counts on traffic data, vehicle crash data and pedestrian crash data and process data relative to the movement of vehicles, persons, services and goods on city streets and highways.

**Metropolitan Planning:** Describes the regional transportation planning and special technical assistance projects proposed to be undertaken July 1, 2011 through June 30, 2012 by COG/TPB staff in cooperation with state and local agencies and WMATA.

**Program Funding:** The FY 2012 SPR Program funding is \$2,853,797 (Federal = \$2,283,038 and District = \$570,759).

**Maryland Department of Transportation**  
**State Highway Administration**  
**State Planning and Research (SPR) Program Elements Supporting the**  
**Washington Area Work Program FY 2012**

I. Systems and Programming

A. Programs

1. Preparation and development of the 6 year Consolidated Transportation Program & Preparation of the Annual Statewide Transportation Improvement Program
  - Develop the FY 2012-2017 CTP.
  - Coordinate with appropriate State and local planning staffs, MPOs and State, county and municipal elected officials.
  - Prepare presentation materials for the annual tour.
  - Prepare and submit an annual program for use of available federal funds in accordance with Title 23 U.S.C. and SAFETEA-LU.
  - Coordinate the STIP with the regional TIPs, CTP and local jurisdiction's highway improvement programs
2. Local Government Liaison
  - Coordinate between all levels of Federal, State, and local governments to ensure that transportation plans are compatible per the 3-C process.
  - Notify review agencies and review other agency plans and programs, via the State Clearinghouse process.
  - Coordinate and review county and municipal master plans.
  - Assess transportation impacts of proposed major development.
3. Long Range Planning
  - Update the Highway Needs Inventory (HNI).
  - Evaluate long-term highway needs and investment levels for various program categories and sub-categories.
  - Review and provide input on updates to the statewide long range plan and Annual Attainment Report on Transportation System Performance.

II. Traffic

A. Traffic Monitoring Program

- Monitor the characteristics of highway traffic.
- Enhance procedures to collect, process and disseminate traffic data.

- Ensure that the traffic monitoring system meets State needs and the requirements and guidelines of FHWA and AASHTO.
- Study, and as appropriate, implement methods to improve the efficiency and effectiveness of traffic monitoring through statistical analysis.
- Improve the monitoring of traffic on freeways, particularly in urban areas.
- Ensure the collection of traffic volume, classification and weight data on SHRP monitoring sites.

### III. Metropolitan Planning Organization Liaison

#### A. Urbanized Areas

- Work with the MPOs in modifying and adhering to their planning process.
- Work with the MPOs in the development of the UPWPs, CLRPs, TIPs, clean air conformity determinations, and management systems.

### IV. Highway Statistics

#### A. Mileage

##### Federal System

- Develop new Federal Functional Classification and NHS maps and mileage tables for approval and distribution.
- Update and maintain statistical records summary tables.

#### B. State, County and Municipal Highway Systems

- Solicit receive and process reports from local jurisdictions regarding road improvements, mileage, etc.
- Collect, update and maintain data used for the Universe portion of the HPMS submission.
- Update and maintain the highway information databases to meet on-going state and federal requirements.
- Provide data used for the update of SHA's maps.

#### C. Highway Performance and Monitoring System

- Update the HPMS database including revisions to any data elements, maintain sample size requirements to accurately reflect system-wide conditions and submit an updated HPMS data file and related reports and data files.

#### V. Special Studies

A. Preliminary Studies

- Prepare engineering and feasibility studies.
- Develop preliminary purpose and need statements.
- Develop access control plans for selected primary highway corridors.
- Prepare interstate access point approval requests.

MDOT State Highway Administration	
FY 2012 State Planning & Research Program Elements	
Supporting the Washington Area Work Program	
Item	Amount (\$)
I. Systems & Programming	
A. CTP	\$217,555
B. Local Government Liaison	\$134,665
C. Long Range Planning	\$37,800
II. Traffic Monitoring Program	\$1,084,904
III. MPO Liaison	\$22,815
IV. Highway Statistics	\$430,958
V. Special Studies	\$216,000
Total	\$2,144,697

**VIRGINIA DEPARTMENT OF TRANSPORTATION**  
**SPR PROGRAM ELEMENTS, AND OTHER ELEMENTS SUPPORTING THE**  
**WASHINGTON AREA WORK PROGRAM**

**(as of February 24, 2010)**

The following work program element descriptions identify the Virginia Department of Transportation (VDOT) transportation planning activities proposed for FY 2011, in support of the Unified Planning Work Program for the Metropolitan Washington Region. In addition to SPR-funded activities, other planning activities are included for information as requested by Virginia Division, FHWA.

VDOT's Transportation and Mobility Planning Division (TMPD), located in the VDOT Central Office, will provide statewide oversight, guidance and support for the Federally mandated Metropolitan Transportation Planning & Programming Process. TMPD will provide technical assistance to VDOT District Planning Managers, local jurisdictions, regional agencies and various divisions within VDOT, in the development of transportation planning documents for the MPO areas. TMPD will participate in special studies as requested. FY-11 SPR funding (Statewide) for such support is not included in the amounts shown below.

**I. METROPOLITAN PLANNING (\$232,600 requested)**

This element represents the various activities undertaken by NoVA District (VDOT) Planning and Investment Management staff (with support from the VDOT Central Office staff as needed) in the development and implementation of the various elements / work tasks in the Unified Planning Work Program. Planned work includes the Department's participation in all Transportation Planning Board (TPB) and Metropolitan Washington Air Quality Committee (MWAQC) functions as well as participation in TPB programs (such as Commuter Connections) and regional planning and programming activities (such as TIP / CLRP development). VDOT staff will also assist in coordinating state and local jurisdiction bicycle and pedestrian programs, travel forecasting applications (including network and model development), and travel monitoring. Most of these activities will be conducted by in-house staff funded via SPR funding along with state funding if needed.

**II. SUBREGIONAL PLANNING (\$345,000 requested including unspent funds from FY10)**

This element outlines specific studies to be undertaken by the Department's staff in the development and implementation of various Northern Virginia District-wide transportation planning activities using available SPR funds.

1. NoVA Planning Function Analyses (\$75,000)

This work, which will be conducted over two years, will have scope elements similar to those in the FY10 “NOVA Planning Applications” effort (support to local jurisdictions, land use- transportation impact topics, feasibility and sub-area assessments) with some allowance for consultant support for tasks unable to be accomplished with reduced in-house capability (modeling and GIS in particular). Completion in FY12.

2. Pedestrian Safety Measuring Tool (\$80,000) (incl. unspent FY10 funds)

This effort was begun in FY10 but not completed. It is intended to develop a tool to aid the planning and management of pedestrian safety improvements. Existing policies that establish the importance of good pedestrian facilities do not establish methods for prioritizing proposed improvements. A method is needed for evaluating the many factors that affect the entire pedestrian experience. Development of a tool to help prioritize among pedestrian facility improvement projects will help focus scarce resources on the projects yielding the most benefit so that measurable increases in pedestrian facility use may result. This effort will be performed chiefly in Arlington County which has identified about 100 locations needing pedestrian improvements and has also piloted a version of a “Complete the Streets” tool. This project should be completed in FY11.

3. Chapter 527 Reviews (\$95,000)

The intent for this effort is to fund Transportation Planning in-house staff time to complete these required reviews of local land use planning changes during FY11. Funds will support staff attendance at scoping and coordination meetings, reviews of comprehensive plan amendments or updates, rezoning actions, and site plan submissions. The effort will include consultation with appropriate agencies and local jurisdictions staff. Funding for FY12 will be requested at the appropriate time.

4. Bike & Pedestrian Facility Maintenance Program (\$60,000) (incl. unspent FY10 funds)

This project, which was initiated in FY10, will create a consistent evaluation method for identifying bicycle and pedestrian facility maintenance projects. Using the method, a pool of bike / pedestrian facility maintenance projects will be created initially focusing on primary roads, commuter parking lots, and a few major secondary roads. The findings from this project pool will help determine the need for a budgetary line item for bike & pedestrian facility repair work. This project is expected to be completed over two fiscal years (FY10 & 11).

5. Pedestrian / Bicyclist Education Campaign (\$20,000) (incl. unspent FY10 funds)

This continues a project begun in FY09 whose intent is to educate the public in the NoVA region about the responsibilities under Virginia law of pedestrians, bicyclists,



and motorists when using public roads, paths, or sidewalks. A comprehensive public outreach campaign will be developed targeted to multiple audiences, including non-English speaking populations. The project will include the purchase of marketing items and development of an informative publication. Due to staffing shortages this project was not completed in FY10, as planned, but will continue into FY11. Completion of this project is expected in FY11.

6. Bike / Pedestrian Count Program (\$15,000) (incl. unspent FY10 funds)

Since July, 2005, NoVA Transportation Planning Section has conducted a bike / ped count program, generally collecting data during a 12-hour time period. This project will continue that work by performing additional counts at the same and / or different locations using advanced technology. The actual counts will be taken by MWCOG staff. The SPR funding for this effort will cover VDOT staff time spent overseeing the counts. This work should be completed in FY11.

7. Consultant Services (centrally managed and funded)

“On-call” consultant support (managed by VDOT’s Central Office) may be used as funding is available to undertake short term, limited scope studies identified during fiscal year 2011. Since this consultant contract is centrally managed, and the Northern Virginia District shares consultant use with other VDOT Districts, no specific amount of funding is guaranteed to NoVA District. Examples of past studies using this consultant support include: operational analysis of selected near-term improvements to Route 7 in the Sterling area, a study of highway / rail co-location in Tysons Corner, a study of American Legion Bridge commuter origins / destinations, and studies of possible transportation improvements in Annandale.

**III. SUBREGIONAL PLANNING (RSTP Funds) (\$1,200,000 from FY11)**

The NoVA Transportation Authority (NVTA) is updating its TransAction 2030 Plan, which was adopted by Northern Virginia jurisdictions in 2006. The NVTA has allocated \$1,200,000 in FY11 Regional Surface Transportation Plan (RSTP) funds for this NoVA region long range plan. Consultant support will assist regional jurisdiction technical staff in this effort, with consultant effort scheduled to begin in FY11. Plan completion is anticipated in April, 2012.

**PROGRAM FUNDING (Requested)**  
**VIRGINIA DEPARTMENT OF TRANSPORTATION**  
**SPR ELEMENTS SUPPORTING THE WASHINGTON REGION**  
**FY2011 UNIFIED PLANNING WORK PROGRAM**

Item	Work Element	Federal Funds	State Funds	Total
<b>I</b>	<b>Metropolitan Planning (SPR funds)</b>			
	NoVA District Planning Staff Support	\$186,080	\$46,520	\$232,600
<b>II</b>	<b>Sub-regional Planning (SPR funds)</b>			
1	NoVA Planning Function Analyses	\$60,000	\$15,000	\$75,000
2	Pedestrian Safety Measuring Tool	\$64,000	\$16,000	\$80,000
3	Chapter 527 Reviews	\$76,000	\$19,000	\$95,000
4	Bike & Ped Facility Maintenance	\$48,000	\$12,000	\$60,000
5	Pedestrian & Bicyclist Education	\$16,000	\$4,000	\$20,000
6	Bike & Ped Count Program	\$12,000	\$3,000	\$15,000
7	On-call Consultant (Centrally funded and managed)			
<b>III</b>	<b>Sub-regional Planning (RSTP funds)</b>			
	NVTA TransAction 2040 Plan	\$96,000	\$24,000	\$1,200,000