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**METROPOLITAN WASHINGTON
COUNCIL OF GOVERNMENTS**

**NATIONAL CAPITAL REGION
TRANSPORTATION PLANNING BOARD**

FY 2005

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

February 6, 2003

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1. INTRODUCTION

Purpose

The **FY 2005 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, 2004 through June 30, 2005. 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.

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, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued final regulations regarding metropolitan planning.

The Transportation Equity Act for 21st Century (TEA-21), which became law on June 9, 1998, 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. The National Capital Region Transportation Planning Board (TPB) has developed this work program to address the final regulations regarding metropolitan planning and the requirements in TEA-21.

On September 21, 1994, the 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 summarizes 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 is the second three-year update to the CLRP. On June 9, 2003, 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 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 is the third three-year update to the CLRP.

The Clean Air Act Amendments (CAAA) of 1990 require 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.

This document 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 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.

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.

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 Washington metropolitan 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 18 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, and 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 insure 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 state transportation agencies (STAs), 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.

The roles and responsibilities involving the TPB, state and local government transportation agencies, and other MPOs for cooperatively carrying out transportation planning and programming in the Washington region have been established over several years. The responsibilities for the primary planning and programming activities are indicated in Figure 3. Two agreements involving the TPB and the Fredericksburg Area MPO in Virginia and Charles and Calvert Counties in Maryland are included in the Appendix.

Figure 1
ORGANIZATIONS REPRESENTED ON
THE TPB AND/OR ITS TECHNICAL COMMITTEES

VIRGINIA

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

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
City of Bowie	Planning Commission
City of College Park	Maryland Department of Transportation
City of Frederick	Maryland General Assembly
City of Gaithersburg	

DISTRICT OF COLUMBIA

D.C. Council
D.C. Department of Public Works
D.C. Office of Planning

REGIONAL, FEDERAL AND PRIVATE SECTOR

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

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

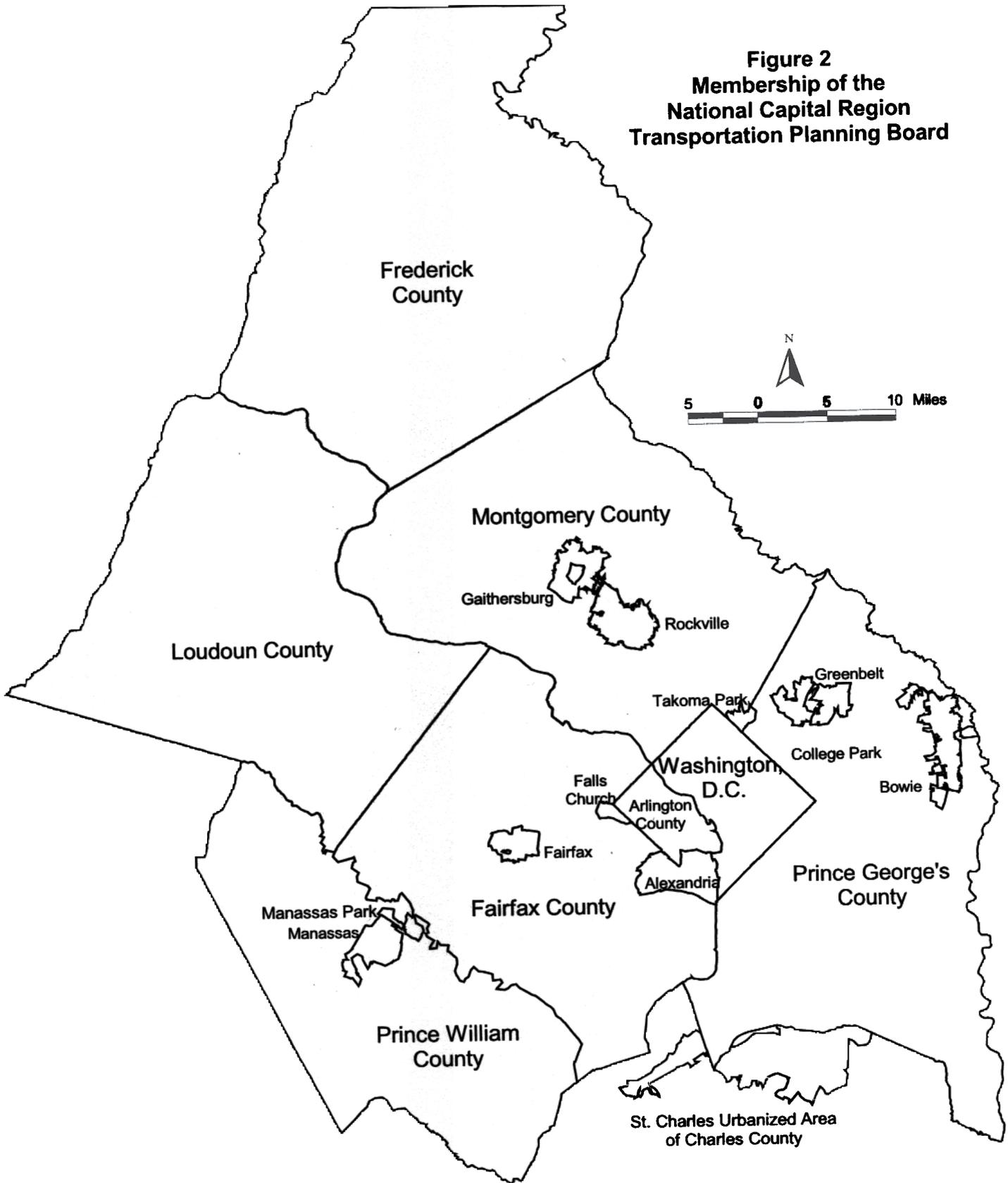


Figure 3

TRANSPORTATION PLANNING AND PROGRAMMING RESPONSIBILITIES

Responsibility	Agencies
UPWP Development	TPB, STAs, WMATA, Local Govts
CLRP Development	
LRP Inputs/Update	STAs, WMATA, Local Govts, NVTC/PRTC, MWA
Project Selection	TPB, STAs, WMATA, and Local Govts
Planning Certification	TPB, STAs
Air Quality Conformity	TPB, Fredericksburg Area MPO
Financial Plan	TPB, STAs, WMATA
Transportation/Land-Use Planning	TPB, MDPC, Local Govts
Public Involvement Process	TPB
TIP Development	
TIP Inputs	STAs, WMATA, Local Govts, NVTC/PRTC, MWA
Project Selection	TPB, STAs, WMATA
Planning Certification	TPB, STAs
Air Quality Conformity	TPB, Fredericksburg Area MPO
Financial Plan	TPB, STAs, WMATA, Local Govt., NVTC/PRTC
Transit Financial Capacity	TPB, WMATA, Local Govts
ADA Transit Planning	WMATA, Frederick County, TPB
Access to Jobs Planning	WMATA, human services agencies, TPB
Private Enterprise Participation	TPB, WMATA, Local Govts, NVTC/PRTC
Public Involvement Process	TPB
Congestion Management System	TPB, STAs, WMATA
Air Quality 2005 Attainment Plan	MWAQC, TPB, STAs WMATA, state AQ agencies
Corridor Studies	STAs, WMATA, TPB
Travel Demand Forecasting	TPB
Travel Monitoring	TPB, STAs, WMATA, Local Govts

The operators of publicly owned transit services are directly involved in all aspects of this regional planning and programming process. The Washington Metropolitan Area Transit Authority (WMATA) is a voting member on the TPB. To coordinate the various transit activities with the regional planning and programming, WMATA, the local transit operators, the commuter rail operators, and other transit agencies within the region are represented on the Technical Committee and its subcommittees.

During FY 2005, the regional planning priority will be to complete the Regional Mobility and Accessibility Study of integrated land use and transportation scenarios and to address the remaining challenges from the TPB vision. The TPB technical planning procedures will also continued to be strengthened to address the provisions of TEA-21. In addition to these activities directly involving the TPB, a number of corridor studies and other planning studies are underway throughout the region (see Figure 4).

Total Proposed Funding by Federal Source for FY 2005

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 1-13.

Funding levels for this UPWP are slightly lower than those for FY 2005. The FY 2004 Basic Program funding level in Table 1 under the "FTA Section 5303" column has decreased about percent from the FY 2004 level, and funding under the "FHWA Section 112" column has decreased about percent from FY 2004. The total budget for the Basic Program is about 3 percent less than the FY 2004 total.

Figure 4
TRANSPORTATION AND AIR QUALITY PLANNING ACTIVITIES
WITHIN THE WASHINGTON METROPOLITAN AREA 2004

<u>Name</u>	<u>Primary Agencies</u>	<u>Schedule</u>	<u>Products</u>
Regional			
Regional Mobility and Accessibility Study	TPB	June 2005	Report
2004 Update of Long-Range Transportation Plan	TPB, state DOTs, WMATA, local govts.	July 2004	CLRP
Woodrow Wilson Bridge Congestion Management	VDOT, MDOT, DCDPW WMATA, federal agencies local governments	on-going	Program
Priority Transit Corridors Study (check)	WMATA	2004	Report
Virginia			
I-66 Location/ Environmental Study	VDOT, VDRPT, local govts, regional and federal agencies	2005	NEPA Document
Capital Beltway EIS	VDOT, VDRPT	2004	NEPA Document
I-95/I-395/I-495 Interchange Congestion Management Program	VDOT, VDRPT, NOVA Counties, WMATA, PRTC, NVTC, TPB	on-going	Program
Tri-County Parkway	VDOT, Federal agencies Local Govts	2004	NEPA doc
US 1 Location Study	VDOT, Local Govts	2004	EA

Figure 4 **PLANNING ACTIVITIES 2004 (Continued)**

Name	Primary Agencies	Schedule & Products	
Maryland			
(To be revised)			
Capital Beltway Study	MDOT, VDOT, Montgomery Prince George's Counties	2004	DEIS
I-270 Multi-Modal Corridor Study	MDOT, Montgomery & Frederick Counties	2005	FEIS
MD 210 Study	MDOT, Prince George's Co	2004	FEIS
Maglev System Study	MDOT/MTA	2003	PE/DEIS
Georgetown Branch Transitway Study (Bethesda to Silver Spring/Purple Line)	MDOT/MTA	2003	PE/FEIS
Regional Busway Study	MDOT/MTA	2003	Feasibility Study
Southern Maryland MD 5 Corridor Park Mass Transportation and Ride Feasibility	MDOT/MTA	2003	Report
MD 5/US 301 Corridor Transit Service Staging Plan	MDOT/MTA	2003	Report
Silver Spring to New Carrollton LRT/Purple Line Study	MDOT/MTA	2005	DEIS
Inter-County Connector Study	MDOT/SHA	Under development	
District of Columbia			
(To Be Revised)			
Anacostia Waterfront Initiative (Study)	DDOT, OP	2002-03	Report

Figure 4 **PLANNING ACTIVITIES 2004** (Continued)

Name	Primary Agencies	Schedule & Products	
District of Columbia			
	(To Be Revised)		
Anacostia Riverwalk Trail Demonstration Project	DDOT, FHWA, OP	2002-03	Demo Trail Construction
South Capitol Street Bridge Feasibility Study	DDOT	2002-03	Report
Traffic Improvement Study of Anacostia Freeway (at 11th Street & Pen Avenue Interchanges)	DDOT	2003	Report
South Capitol Street Gateway Study	OP/DDOT/MDOT	2003	Plan
Theodore Roosevelt Memorial Bridge Study	DDOT/VDOT	2002-03	Report
14th Street Bridge Feasibility Study	FHWA, DDOT, VDOT	2002-03	EA
Metropolitan Branch Bicycle and Pedestrian Right-of-Way Study	DDOT	2003	Report
Alternative to Barney Circle Freeway	DDOT	2002-03	Report
Baltimore/Washington MAGLEV Deployment	DDOT, MDOT	2001-03	EIS
Pennsylvania Avenue Traffic Mitigation Study/Downtown Congestion Study	DDOT	2002-03	Report
Bicycle Plan Update	DDOT	2003	Plan

Figure 4 **PLANNING ACTIVITIES 2004** (Continued)

Name	Primary Agencies	Schedule & Products	
District of Columbia			
	(To Be Revised)		
Transportation Vision Plan Update	DDOT	2002-03	Report
TC/New York Avenue Study	DDOT	2002-03	Report
Kennedy Center Access Improvement Study	FHWA/DDOT NPS/NCPC/CFA	2002-03	EA
Tour Bus Study	NCPC	2002-03	Report
Truck Freight Study	USDOT	2002-03	Report
Downtown Circulator Implementation Study	DDOT, WMATA, NCPC, DBID	2002-03	Study
Value Pricing Parking Study	DDOT	2003	Report
Whitehurst Freeway/Theodore Roosevelt Bridge/M Street/Lower K Street Renewal and Environmental Study	DDOT	2004	Report
Neighborhood Transportation Planning Studies	DDOT	2003	Studies
Traffic Calming Studies	DDOT	2003	Reports
Streetscape Studies	DDOT	2003	Reports
Parking Studies	DDOT	2003	Reports

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TABLE 1
FY 2005 TPB PROPOSED FUNDING BY FEDERAL STATE AND LOCAL SOURCES
(July 1, 2004 to June 30, 2005)

	FTA SECT 5303 80% FED & 20% STA/ LOC	FHWA SECT 112 80% FED & 20% STA/ LOC	FAA CASP 90% FED & 10% LOC	TOTALS
ALLOTMENTS PROVIDED BY DDOT				
NEW FY 2005	393,700	1,217,600		1,611,300
UNOBLIGATED FY 2003	28,200	60,500		88,700
SUBTOTAL	421,900	1,278,100		
ALLOTMENTS PROVIDED BY MDOT				
NEW FY 2005	695,700	2,353,400		3,049,100
UNOBLIGATED FY 2003	53,900	125,700		
SUBTOTAL	749,600	2,479,100		
ALLOTMENTS PROVIDED BY VDOT				
NEW FY 2005	596,100	1,836,300		2,432,400
UNOBLIGATED FY 2003	48,700	112,800		
SUBTOTAL	644,800	1,949,100		
TPB BASIC PROGRAM				
TOTAL NEW FY 2005	1,685,500	5,407,300		7,092,800
TOTAL UNOBLIGATED FY 2003	130,800	299,000		
SUBTOTAL	1,816,300	5,706,300		
TOTAL BASIC PROGRAM	1,816,300	5,706,300	0	7,522,600
GRAND TOTAL	1,816,300	5,706,300	0	7,522,600

"New FY2005 funds" refer to newly authorized funds for the FY2005 UPWP

"Unobligated FY2003 funds" refer to unexpended funds from the completed FY2003 UPWP

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2. PROPOSED FY 2005 TPB WORK PROGRAM AND BUDGET

Program Structure and Work Item Budgets

The FY 2005 work Program comprises six major work activities and follows the same structure as the FY 2004 program. The tasks to be completed under each of the work activities are described in the following sections. The staff of the COG/TPB 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. The relationship and interactions of the six major work activities are shown in Figure 5 on page 2-3.

The first major activity, **Policy Products (I)** includes the preparation 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 also required by federal law and regulations. As shown in the figure, the CLRP also includes specific activities such as the regional congestion management system (CMS), regional management, operations and emergency preparedness, the financial plan and the bicycle and pedestrian program. Public participation applies to all of the policy products. Access to Jobs planning addresses the TEA-21 requirement for regional coordination of non-emergency transportation services and job access planning.

The second major activity, **Technical Products (II)** includes forecasting applications such as air quality conformity and regional studies to provide the substantive inputs for the policy products. As shown in the figure, **Methods (III)**, such as the development of networks and travel demand models, interact with **Data (IV)**, which provides empirical travel information from congestion monitoring and survey and analysis activities. Both products and methods activities provide input for the technical products.

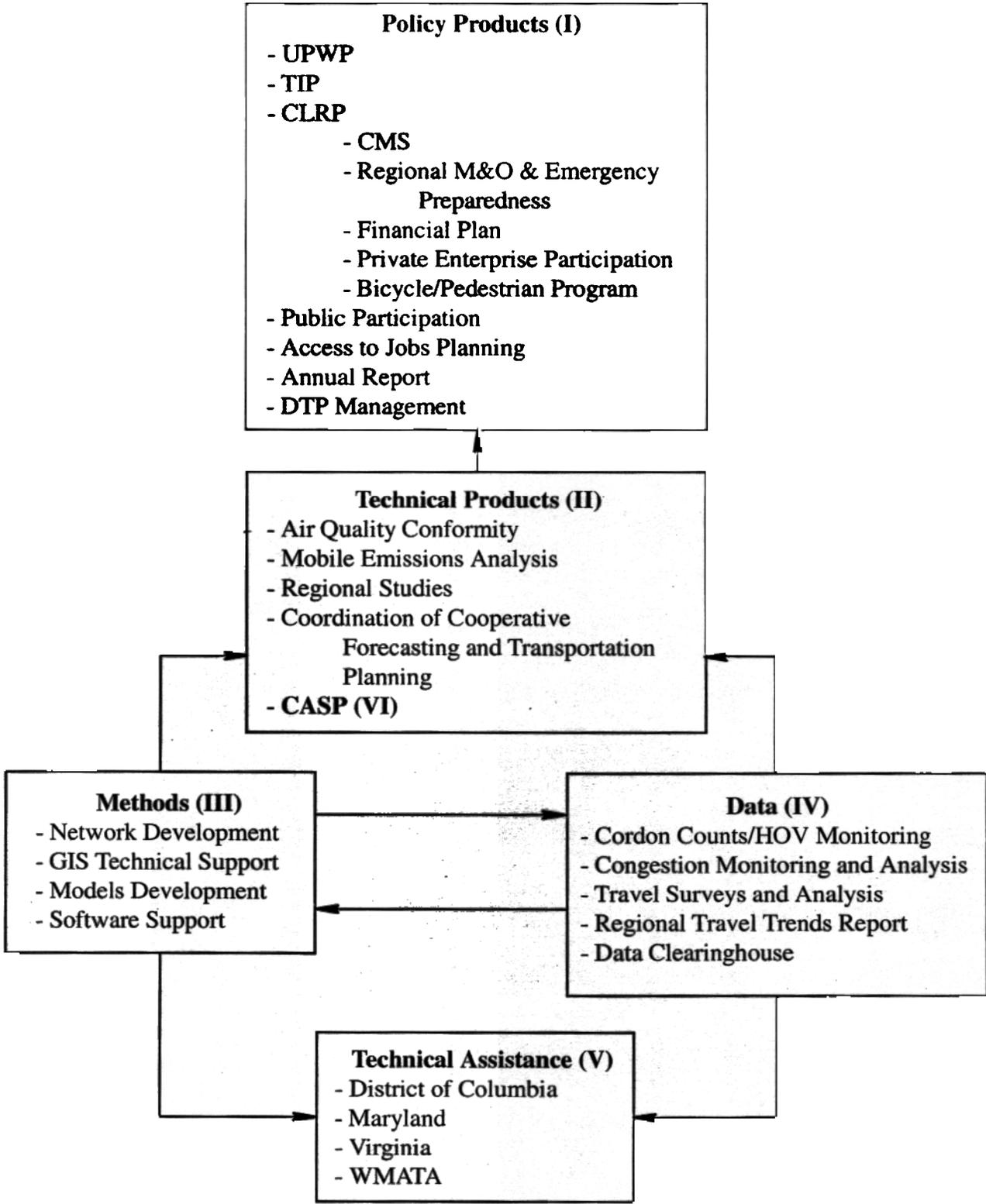
The **Technical Assistance (V)** activity responds to requests for applying methods and data from state and local governments and transit operating agencies. **Continuous Airport System Planning (CASP) (VI)** is a technical product that also utilizes the methods and data work activities for airport and airport-serving facilities in the region.

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 2-5. The TPB committee or subcommittee responsible for the specific work activities listed in Table 2 are shown in Figure 6 on page 2-7. A detailed breakdown of staffing and other budgetary requirements is provided in Table 3 on page 2-6.

Funding for the TPB Basic Work Program is lower than the FY 2004 level, and the FY 2005 UPWP continues the work activities in the FY 2004 UPWP. The structure and content of this work program are summarized as follows:

- **Under Category I (Plans, Programs and Coordination)**, all of the activities have been conducted on an annual basis in previous years.
- **Under Category II (Forecasting Applications)**, activities relating to Air Quality Conformity (item II.A), Mobile Emissions Analysis (item II.B), and Coordination of Cooperative Forecasting and Transportation Planning (item II.D) have been conducted on an annual basis in previous years. Regional Studies (item II.C), is an activity in response to the TPB action on November 15, 2000.
- **Under Category III (Development of Networks/Models)**, all of the activities have been conducted on an annual basis in previous years.
- **Under Category IV (Travel Monitoring)**, all of the activities have been conducted on an annual basis in previous years.
- **Category V relating to Technical Assistance and Continuous Airport System Planning (CASP)** represent the continuation of activities that are conducted each year.

Figure 5
How FY2005 UPWP Work Items are Related



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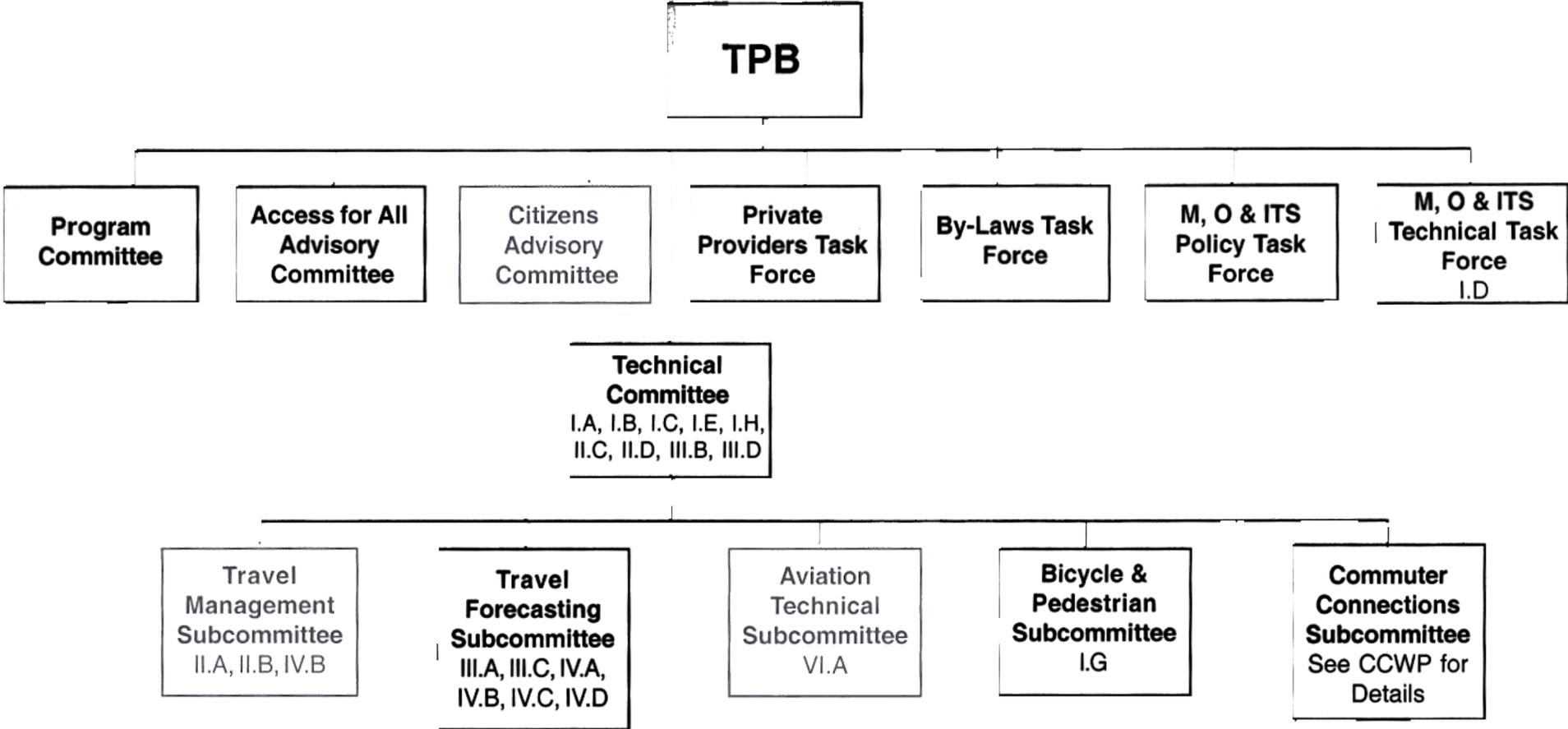
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TABLE 2
TPB FY 2005 WORK PROGRAM BY FUNDING SOURCES

WORK ACTIVITY	TOTAL COST	FTA/STATE/ LOCAL	FHWA/STATE/ LOCAL	OTHER FUND
I. PLANS, PROGRAMS AND COORDINATION				
A. Unified Planning Work Program (UPWP)	67,600	16,322	51,278	
B. Transp Improvement Program (TIP)	145,000	35,010		
C. Constrained Long-Range Plan	387,600	93,584		
D. Operations, Coordination/Emergency Preparedness	346,800	83,733		
E. Financial Plan	52,000	12,555		
F. Private Enterprise Participation	17,400	17,000		
G. Bicycle and Pedestrian Program	61,700	14,897	46,803	
H. Access to Jobs Planning	50,700	12,241	38,459	
I. Public Participation	170,400	41,142	129,258	
J. Annual Report	76,600	18,495	58,105	
K. DTP Management	429,700	103,749	325,951	
Subtotal	1,805,500	448,729	1,356,371	
II. FORECASTING APPLICATIONS				
A. Air Quality Conformity	298,900	72,168	226,732	
B. Mobile Emissions Analysis	397,400	95,951	301,449	
C. Regional Studies	603,400	145,688	457,712	
D. Coord Coop Forecasting & Transp Planning	167,600	40,466	127,134	
Subtotal	1,467,300	354,273	1,113,027	
III. DEVELOPMENT OF NETWORKS/MODELS				
A. Network Development	623,900	150,638	473,262	
B. GIS Technical Support	442,200	106,767	335,433	
C. Models Development	641,600	154,912	486,688	
D. Software Support	101,500	24,507	76,993	
Subtotal	1,809,200	436,824	1,372,376	
IV. TRAVEL MONITORING				
A. Cordon Counts	365,200	88,176	277,024	
B. Congestion Monitoring and Analysis	353,700	85,399	268,301	
C. Travel Surveys and Analysis				
Household Travel Survey	178,100	43,001	135,099	
2000 Census Journey to Work Analysis	246,500	59,516	186,984	
Regional Travel Trends Report	143,600	34,672	108,928	
D. Regional Trans Data Clearinghouse	61,200	14,776	46,424	
Subtotal	1,348,300	325,541	1,022,759	
Core Program Total (I to IV)	6,430,300	1,565,368	4,864,532	
V. TECHNICAL ASSISTANCE				
A. District of Columbia	217,500	26,380	191,120	
B. Maryland	411,600	49,922		
C. Virginia	328,400	39,831		9
D. WMATA	134,800	134,800		
Subtotal	1,092,300	250,932	841,368	
Total, Basic Program	7,522,600	1,816,300	5,705,900	
VI. CONTINUOUS AIRPORT SYSTEM PLANNING - CASP				
A. Ground Access Travel Time Study		-		
B. Ground Access Forecast Updates		-		
Subtotal	0	-	-	
GRAND TOTAL	7,522,600	1,816,300	5,705,900	0

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TABLE 3

WORK ACTIVITY	DIRECT SALARIES DTP STAFF	DIRECT SALARIES OTHER COG STAFF	M & A	LEAVE BENEFITS	FRINGE BENEFITS	INDIRECT COSTS	DATA & PC COSTS	CONSULTANT	DIRECT COSTS	TOTAL
			27%	18%	16%	42%				
I. PLANS, PROGRAMS AND COORDINATION										
A. Unified Planning Work Program	25,721	206	7,000	5,927	6,217	18,930	100	0	3,500	67,600
B. Transportation Improvement Program	52,762	2,859	15,018	12,715	13,337	40,610	200	0	7,500	145,000
C. Constrained Long-Range Plan	136,301	17,741	41,591	35,214	36,935	112,468	1,250	0	6,100	387,600
D. Operation, Coordination/Emergency Preparedness	126,883	12,716	37,692	31,912	33,473	101,924	150	0	2,050	346,800
E. Private Plan	19,654	1,311	5,660	4,792	5,027	15,306	100	0	150	52,000
F. Private Enterprise Participation	6,803	206	1,892	1,602	1,680	5,117	100	0	17,000	17,000
G. Bicycle and Pedestrian Program	24,005	544	6,628	5,612	5,886	17,924	100	0	1,000	61,700
H. Access to Jobs Planning	2,039	18,500	5,545	4,925	4,925	14,996	0	0	0	50,700
I. Public Participation	49,921	920	13,727	11,622	12,190	37,120	100	30,000	14,800	170,400
J. Annual Report	20,802	0	5,617	4,755	4,988	15,188	100	0	25,150	76,600
K. DTP Management	79,245	15,631	25,616	21,689	22,749	69,270	0	0	195,500	429,700
Subtotal	544,134	70,633	165,987	140,536	147,407	448,853	2,200	30,000	255,750	1,805,500
II. FORECASTING APPLICATIONS										
A. Air Quality Conformity	88,418	21,171	29,589	25,052	26,277	80,013	15,080	0	13,300	298,900
B. Mobile Emissions Analysis	121,325	20,797	38,373	32,489	34,077	103,766	11,730	20,000	14,843	397,400
C. Regional Studies	207,417	25,000	62,753	53,131	55,728	169,892	15,080	12,000	2,600	603,400
D. Coord Coop Forecasting and Transp Plng	40,378	25,289	17,730	15,012	15,746	47,945	5,500	0	0	167,600
Subtotal	457,539	92,257	148,445	125,683	131,828	401,416	47,390	32,000	30,743	1,467,300
III. DEVELOPMENT OF NETWORKS/MODELS										
A. Network Development	243,767	0	65,817	55,725	58,449	177,579	19,163	0	3,000	625,900
B. GIS Technical Support	149,889	0	40,470	34,265	35,940	109,437	49,500	0	22,700	442,200
C. Models Development	216,613	0	58,486	49,518	51,939	158,153	25,491	75,000	6,400	641,600
D. Software Support	37,468	0	10,116	8,565	8,984	27,356	4,747	0	4,264	101,500
Subtotal	647,737	0	174,889	148,073	155,312	472,924	98,901	75,000	36,364	1,809,200
IV. TRAVEL MONITORING										
A. Cordon Counts	92,556	0	24,990	21,158	22,193	67,577	10,000	0	126,727	365,200
B. Congestion Monitoring and Analysis	107,886	0	29,129	24,663	25,868	78,769	15,935	50,000	21,450	353,700
C. Travel Surveys and Analysis	192,020	0	51,845	43,896	46,042	140,197	37,000	0	57,200	568,200
D. Regional Trans Data Clearinghouse	16,488	0	4,452	3,769	3,953	12,038	15,500	0	5,000	61,200
Subtotal	408,949	0	110,416	93,486	98,056	298,581	78,435	50,000	210,377	1,348,300
Core Program Total (I to IV)	2,058,359	162,890	599,737	507,778	532,602	1,621,774	226,926	187,000	533,234	6,430,300
V. TECHNICAL ASSISTANCE										
A. District of Columbia	86,166	0	23,265	19,698	20,661	62,911	2,500	0	2,300	217,500
B. Maryland	164,311	0	44,364	37,561	39,398	119,966	5,296	0	704	411,600
C. Virginia	79,073	0	21,350	18,076	18,960	57,732	2,000	65,000	66,210	328,400
D. WMATA	13,338	0	3,601	3,049	3,198	9,738	0	101,675	200	134,800
Subtotal	342,887	0	92,580	78,384	82,216	250,348	9,796	166,675	69,414	1,092,300
BASIC PROGRAM TOTAL	2,401,246	162,890	692,317	586,162	614,818	1,872,122	236,722	353,675	602,648	7,522,600

Figure 6
TPB Committee Structure
and FY2005 Work Activity Oversight



2-7

Name
 Work Activities as
 Designated in the
 FY2005 UPWP

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I. PLANS, PROGRAMS AND COORDINATION

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 new planning requirements. On October 28, 1993, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued final regulations regarding metropolitan planning. The Transportation Equity Act for the 21st Century (TEA-21), which became law on June 9, 1998, streamlined and strengthened the planning process. The final regulations regarding metropolitan planning and the new requirements in TEA-21 are addressed in this document. In 1994, the TPB developed and adopted the first financially-constrained Long Range Transportation Plan for the National Capital Region (CLRP) as required by the final regulations. The documentation of the first three-year update in 1997 of the CLRP was approved by the TPB in 1998, the second update was approved in October 2000, and the third update was approved in December 2003.

The Environmental Protection Agency (EPA) issued on November 24, 1993, with amendments on August 15, 1997, May 14, 1999 and June 14, 1999, regulations 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. 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 2005 UPWP defined by this document details the planning activities to be accomplished between July 2004 and June 2005 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. It also describes the planning

roles, responsibilities and procedures, as required by the final regulations, involving the TPB and the states, the publicly owned operators of mass transit services, the state air quality agencies, and another MPO to the south of the Washington metropolitan region.

During FY 2005 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 2005, staff will prepare the FY 2006 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 2005, as a draft to the Technical Committee in February 2005 and as a final document for adoption by the Technical Committee and the TPB in March 2005. The approved UPWP will be printed, distributed to the TPB, and made available to the public.

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:	\$67,600
Products:	UPWP for FY 2006, amendments to FY 2005 UPWP, monthly progress reports and state invoice information, federal grant materials
Schedule:	Draft: February 2005 Final: March 2005

B. THE TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

As required under the final planning regulations, 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 is updated each year and must be approved by the TPB and the governors of Maryland and Virginia and the mayor of the District of Columbia. The TIP is required as a condition for all federal funding assistance for transportation improvements within the Washington Metropolitan Statistical Area.

The new TIP will include all projects to be carried out within two 3-year periods, beginning with FY 2006-08 and then followed by FY 2009-11. Projects for funding and implementation in the first year of the program are placed in the annual element.

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 the proposed TIP as described under the TPB's adopted public involvement process. To facilitate public review, the TIP and CLRP inputs and project descriptions will be accessible electronically through the Internet. The database application for 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.

The TIP Schedule and Project Selection

The FY 2005-10 TIP is scheduled to be adopted by the TPB in July 2004. In December 2004, TPB will issue a solicitation document requesting project or action input for the new TIP. Draft versions of the TIP will be prepared for review by the TPB Technical Committee, the TPB, and the public between May and July. These versions 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 Public Works, the National Park Service, the Washington Metropolitan Area Transit Authority (WMATA) and other public transit operators, and local government agencies.

The TPB will select in consultation with the states all transit, highway, congestion mitigation/air quality, and safety and enhancement projects (excluding those on the National Highway System (NHS) or the Bridge and Interstate Maintenance programs) undertaken within the Washington Transportation Management Area (TMA). The states will select in cooperation with the TPB all projects on the NHS or funded under the Bridge and Interstate Maintenance programs undertaken within the Washington TMA.

Projects included in the TIP 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. As described under Task I.F, a financial plan will be prepared to demonstrate how the TIP can be implemented, and indicate the sources of public, private and innovative funding.

During the year certain amendments may be needed in the FY 2005-10 TIP to reflect changes in priorities or the introduction of new project elements. Such amendments will

be identified and detailed for consideration by the TPB as appropriate during the fiscal year.

Annual Listing of TIP Projects that Have Federal Funding Obligated

TEA-21 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 2004.

Oversight:	Technical Committee
Cost Estimate:	\$145,000
Products:	Draft FY 2006-11 TIP, amendments to FY 2005-10 TIP; TIP projects with obligated federal funding in preceding year
Schedule:	Final TIP Draft for Public Comment: June 2005 TIP projects with obligated federal funding in preceding year: June 2005

C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

In September 1994, the TPB adopted the initial financially-constrained Long-Range Transportation Plan (CLRP) for the National Capital Region for the year 2020. The CLRP, which under the final planning regulations must be updated at least every three years, also is updated annually (sometimes more frequently) with amendments. These amendments adjust the phasing or other aspects of some of the projects or actions in the plan, include new projects with identified new funding sources, or change specific projects as new information on them became available.

In July 1997, the TPB approved the second three-year update of the plan which was documented in a comprehensive report: *1997 Update to the Financially Constrained Long Range Transportation Plan for the National Capital Region*. In October 2000, the TPB approved the third three-year update of the plan. In December 2003, the TPB approved the third three-year update of the plan.

The 2004 Update of the CLRP

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 seven new planning factors in TEA-21. The Vision is the TPB Policy Element of the 2004 update of the

CLRP.

In January 2004, TPB issued a solicitation document requesting project or action input for 2004 update of the CLRP. Draft versions of the CLRP will be prepared for review by the TPB Technical Committee, the TPB, and the public between May and July. The TPB is scheduled to adopt the 2004 CLRP in July 2004. In January 2005, TPB will issue a solicitation document requesting project or action input for 2005 CLRP. Draft versions of the CLRP will be prepared for review by the TPB Technical Committee, the TPB, and the public between May and July 2005.

Documentation of the 2004 CLRP

The 2004 CLRP will be documented. It will describe how the plan addresses the TPB Vision goals, objectives and strategies. It will describe the relationship of the transportation strategies and improvements and the development framework as depicted in the regional activity centers map. It will present a regional job accessibility analysis and describe the impacts on low-income and minority populations. It will also present the forecasted travel demand and transportation system performance impacts.

To facilitate public access to the new document, it will be placed on the TPB web page. In addition, the project descriptions with informative maps and graphics from the plan will be accessible through the Internet.

The Congestion Management System Element

The Congestion Management System (CMS) is an integral part of the transportation planning process in the region and is an element of the CLRP. The CMS element of the CLRP provides information on transportation system performance, usage, and efficiency, and provides information on the potential impact of proposed strategies to alleviate congestion. In October 1997, as required by federal regulations, the CMS for the Washington metropolitan area was fully operational. In FY98, a CMS component was added to the CLRP and TIP project submission forms to document that serious consideration has been given to strategies that provide the most efficient and effective use of existing and future transportation facilities, including alternatives to highway capacity increases for single-occupant vehicles (SOVs).

In FY2001, the CMS element of the CLRP document was updated with current information on congestion management strategies that have been considered or implemented. In FY2005, the CMS element will be updated with current information on the transportation system's performance. Regional travel trends will be described to depict changes in travel patterns and key indicators over time. This travel trend information will be based upon the transportation system conditions and travel data developed under work item IV.B. Congestion Monitoring and Analysis. Improvements to the congestion management system documentation process and submission forms for

the CLRP and TIP will be undertaken on as appropriate.

To ensure coordination and compatibility between the CLRP and other long-range transportation planning activities throughout the region, senior staff will participate in relevant state-level long-range planning and CMS activities and studies.

Oversight:	Technical Committee; Travel Management Subcommittee (CMS element)
Cost Estimate:	\$387,600
Products:	Documentation of 2004 CLRP and draft 2005 CLRP amendments; maps and related materials accessible to the public via the Internet.
Schedule:	2004 documentation December 2004 draft 2005 CLRP amendments June 2005

D. TRANSPORTATION OPERATIONS COORDINATION AND EMERGENCY PREPAREDNESS PLANNING

Management, operations, and emergency preparedness considerations are key elements in the overall design of the region's transportation systems, and must be reflected in the metropolitan transportation planning process. The federal TEA-21 legislation included a planning factor that requires statewide and regional transportation plans to "Promote efficient system management and operation". Topics for regional "management and operations" (M&O) planning include traffic safety and flow, coordination between highway and transit operations, coordination among public safety and transportation agencies, traffic signalization, and planning for non-recurring special events, severe weather, or major disasters or emergencies.

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 and Technical Task Forces. Major topics to be addressed include the following:

- *Traffic Signals:* Assist member agencies in the exchange and coordination of inter-jurisdictional traffic signal operations information and activities.
- *Traveler Information:* Coordinate enhancement of the collection, processing, and delivery of real-time roadway and transit condition information, including potential regional "511" telephone information systems.
- *Safety:* Examine safety issues in relationship to MOITS.

- *ITS Architecture:* Update the regional ITS architecture in accordance with federal law and regulations; help provide coordination of the use of the regional ITS architecture as guidance to regional MOITS project implementation.
- *Performance Measure Development:* Continue development and refinement of performance measures, costs, benefits, and evaluation information for a MOITS orientation for regional transportation planning.
- *Member Agency Activities:* Work as needed with the MOITS activities of the state and D.C. departments of transportation, the Washington Metropolitan Area Transit Authority, and other member agencies.
- *National issues:* Monitor national emerging MOITS activities for potential application in the region.
- *Emergency Transportation Coordination Planning:* Continue efforts to facilitate the improvement of communications (both technical and procedural aspects) for coordination of decision making in emergencies among the region's transportation operating agencies and other key entities; address potential MOITS activities in regional emergencies.

Oversight:	TPB MOITS Policy and Technical Task Forces
Cost Estimate:	\$346,800
Products:	Agendas, minutes, summaries, outreach materials as needed; white paper(s) on technical issues as needed; revised regional ITS architecture; review and advice to MOITS planning activities around the region
Schedule:	Monthly

E. FINANCIAL PLAN

As required under federal planning regulations, both the TIP and the financially-constrained long-range transportation plan (CLRP) for the Washington region 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. During FY 2004, financial plans for the FY2005-10 TIP and the 2004 CLRP were prepared.

The Transportation Improvement Program

The preparation of the financial plan for the FY 2006-2011 TIP will be similar to that for the FY 2005-10 plan. Since TEA-21 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 TEA-21 program funding categories under Surface Transportation (Title I) and Transit (Title III).

The funds programmed in the TIP for each state by TEA-21 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 regional TIP financial plan will be based upon the information that the states use to develop each of the state TIPs. Only projects for which construction and operating funds can reasonably be expected to be available will be included. In the case of new funding sources, strategies for ensuring their availability will be identified by the implementing agency and included in the financial plan for the TIP. The product will be a financial plan that addresses 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 financial plan will also respond to FTA Circular 7008.1, which requires that the TIP include a determination of the financial capacity of FTA grantees to meet public transportation operating costs and capital requirements. There are two aspects to financial capacity: the general *financial condition* of the public transportation operating enterprise and its non-federal funding entities; and the *financial capability* of the agency and its funding entities, which includes the sufficiency of their funding sources to meet future operating deficits and capital costs.

2005 Amendments to the Constrained Long Range Plan

During FY 2003, an extensive financial analysis for the three-year update of the CLRP was prepared, including new revenue projections, revised cost estimates for system maintenance and rehabilitation, and cost estimates for the new system expansion projects. All cost and revenue estimates were through 2030. During FY 2005, the financial plan will be updated for any 2005 amendments to the CLRP.

Oversight:	Technical Committee
Cost Estimate:	\$52,000
Products:	Financial plan for 2005 CLRP amendments Financial plan for the FY 2006-2011 TIP
Schedule:	June 2005

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 FY95, 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:

1. 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).
2. To facilitate early consultation, COG 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.
3. 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.
4. 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.
5. 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. This contribution will be reflected in the minutes and mailouts for TPB meetings, and in documentation prepared by the Private Providers Task Force.

Oversight:	Transportation Planning Board
Cost Estimate:	\$17,400
Product:	Documentation on Private Provider Involvement
Schedule:	Annual Transit Forum - May 2005

G. BICYCLE AND PEDESTRIAN PROGRAM

This program will emphasize activities that ensure the integration of bicycle and pedestrian needs and bicycle planning in the overall regional planning and programming processes. This will be done with the advice of the Bicycle and Pedestrian Subcommittee and the oversight of the TPB Technical Committee.

Based upon a review of the regional bicycle plan, a list of bicycle and pedestrian improvements or projects will be recommended as priorities for inclusion in the region's Transportation Improvement Program (TIP) for FY2006-2011. Information (including updates, corrections, or amendments as necessary) will also be maintained on the bicycle and pedestrian projects in the region's financially Constrained Long-Range Plan (CLRP) and in the Priorities 2000 reports. These reports, developed with a federal grant under the Transportation and Community and System Preservation (TCSP) Pilot Program describe greenway and circulation system projects, many of which are bicycle and pedestrian related.

Information on regionally significant bicycle and pedestrian improvements which are included in a local plan, both funded and unfunded, will be made available in the form of an on-line, queryable database. This database will help answer questions of all kinds concerning planned bicycle and pedestrian projects, both for policymakers and the general public.

A one-day TPB workshop will be conducted to address issues of concern to bicycle and/or pedestrian planners and engineers in the region.

The implementation of the adopted bicycle-related transportation emissions reduction measures (TERMs) will be monitored and reviewed, and the Subcommittee will advise on their progress to the TPB Technical Committee and other subcommittees as necessary. The adopted bicycle-related TERMS include M-70a (providing bicycle parking at key points around the region) and M-70b (outreach to employers to provide bicycle commuting information to their employees). Advice on any new or additional bicycle-related TERMS will be provided as necessary.

Staff will continue to compile bicycle and pedestrian activity data from a variety of sources including COG's cordon count program, the COG Household Travel Survey, the upcoming 2000 Census results, and spot counts from member jurisdictions.

Currently, bicycle routing information to commuter park-and-ride lots is available on the Commuter Connections web page. An implementation plan and budget for an on-line bicycle routing capability, which would be based on the GIS data on bicycle facilities already gathered from the member jurisdictions will be developed for possible operation by the Commuter Connections program. Bicycle routing capability would provide the

public with recommended bicycle routes based on bicycle level of service data, a service similar to that provided for motorists by Mapquest.

Coordinate the third campaign of "Street Smart," which is scheduled to be held in spring 2005. This regional public outreach effort is designed to promote bicycle and pedestrian safety through a comprehensive program of radio and other media activities.

Oversight: Bicycle and Pedestrian Subcommittee

Cost Estimate: \$61,700

Product: Bicycle and pedestrian project submissions from the regional bicycle plan for the FY 2006-20011 TIP. Update of regional bicycle and pedestrian plan and on-line database of regionally significant bicycle and pedestrian projects.

Schedule: December 2004 and June 2005

H. ACCESS TO JOBS PLANNING

The Transportation Equity Act for the 21st Century (TEA-21) encourages MPOs to coordinate the design and delivery of non-emergency transportation services provided by non-U.S. DOT agencies and nonprofit organizations. It also established two discretionary grant programs, Job Access and Reverse Commute. The U.S. DOT Job Access and Reverse Commute programs will complement several ongoing federal initiatives to promote enhanced Welfare-to-Work opportunities. Under these two grant programs, the U.S. DOT will make grants to assist qualified entities in financing eligible projects for transportation capital and operating costs, promotion of transit use by welfare recipients, and subsidies for reverse commute programs and services. In urbanized areas with a population of at least 200,000 population, such as the Washington metropolitan area, qualified entities will be selected among applicants by the MPO.

Although Job Access and Reverse Commute grants may not be used for planning or coordination activities, qualified entities must demonstrate that appropriate coordination has taken place in the preparation of applications, which includes a coordinated public transit-human services transportation planning process involving the MPO.

COG Department of Human Services, Planning and Public Safety (HSPPS) staff will assist TPB staff in providing technical support for the TPB's coordination of non-emergency transportation services and job access planning responsibilities, including providing technical assistance and input on job access and reverse commute programs approved for funding by U.S. DOT and operating in the Washington metropolitan area.

HSPPS staff will coordinate with the TPB Access For All Advisory Committee to involve leaders of low- income, minority and disabled community groups in the coordination and planning of workforce development and job access activities. In FY 2005, staff will update the regional public transit-human services job access plan developed in FY 2004.

Oversight:	Technical Committee
Cost Estimate:	\$50,700
Products:	Update of the regional public transit-human services job access plan
Schedule:	June 2004

I. PUBLIC PARTICIPATION

Background

TEA-21 requires participation by interested parties in the development of the CLRP and the TIP. Citizens, freight shippers, public transit users, affected public agencies, representatives of transportation agency employees, private providers of transportation, and other interested persons must be given a reasonable notice of and opportunity to comment on the development of both the CLRP and the TIP. During FY93, the TPB changed its bylaws to foster greater public involvement in several ways, including establishing the TPB Citizens' Advisory Committee (CAC) for interested citizens and public groups. The TPB News, a monthly newsletter, was inaugurated to inform as wide a group as possible of the activities of the TPB and CAC. Currently, over 2,500 persons are on the mailing list.

On September 21, 1994, in response to the final planning requirements issued on October 28, 1993, the TPB adopted a proactive public involvement process incorporating its current involvement activities and adding new ones. This policy has eleven general requirements and criteria and eight specific activities.

Since 1994 a number of public involvement activities have been carried out, including the regular TPB-related ones, the special activities in conjunction with the vision planning process, the outreach efforts associated with major investment studies (MISs), the activities associated with the state transportation plans, a citizen advisory committee in Northern Virginia, and other citizen input to local governments and other agencies. In FY98, a two-stage evaluation of the region's extensive experience with public participation activities was initiated. In the first stage, a consultant documented the activities that have been in use throughout the region and reviewed the experience with such efforts elsewhere across the country. The consultant also interviewed decision-makers and stakeholder representatives to elicit strengths and weaknesses of

the public participation techniques that have been used and to obtain suggestions for improving them.

In early FY99, the consultant completed the report: *Assessment of Public Involvement in Transportation Planning for the Washington Metropolitan Region*, and presented it to the TPB in October 1998. The report contained a comprehensive set of findings regarding public involvement activities in the region and recommended several improvements and changes. The TPB Bylaws Task Force reviewed the findings and recommendations of the report and developed suggested changes to the TPB public involvement process for consideration by the Board in spring 1999. Following extensive discussion and public input, the TPB on October 20, 1999 adopted a set of revisions to the process.

FY 2005 Activities

Staff will support the TPB public involvement process and conduct the activities as specified in it. The appointed 15-member Citizens Advisory Committee will hold at least six of its 11 meetings outside of the COG offices. Staff will assist the CAC chair in preparing meeting agenda, assembling, and mailing meeting materials and preparing the CAC chair's report to the TPB. The CAC chair will also provide to the TPB an evaluation of the CAC activities by the end of November each calendar year for the first three years, and every three years thereafter. Staff will support the CAC and conduct the eight activities as specified in the adopted involvement process.

All public involvement efforts will be coordinated with the public outreach activities for all 2005 CLRP amendments and the new TIP. To obtain input from groups not traditionally involved in the regional planning process, enhanced outreach activities such as meetings and forums with goods and freight interests and stakeholder organization leaders will be conducted to obtain a wide a range of input for the planning process.

Working with staff of the state DOTs and the District of Columbia, staff will coordinate the TPB public involvement process with the state public involvement processes wherever possible to enhance public consideration of the issues, plans, and programs and reduce redundancies and costs.

TPB Access for All Advisory Committee

In 2000, under a Title VI and Environmental Justice Challenge Grant, an advisory committee to the TPB was established to involve recognized leaders of low-income, minority and disabled community groups. The mission of the committee is to identify projects, programs, services and issues that are important to these communities and are in need of improvement. The structure and purpose of the advisory committee was modeled after successful advisory committees established in 1999 to guide the TPB's Transportation and Community Systems Preservation (TCSP) Grant on Greenways and Circulation Systems.

On November 15, 2000, the TPB appointed Vice Chair, Peter Shapiro to chair the Access for All Advisory (AFA) Committee. The committee involves other TPB members and implementing agencies, including the Washington Metropolitan Area Transit Authority (WMATA), the Virginia Department of Transportation (VDOT), the Maryland Department of Transportation (MDOT), and the District of Columbia Department of Transportation (DDOT). During 2001, The committee held several meetings and discussed various programs and issues. It developed a 2001 report with recommended near-term projects for funding by the transportation agencies to consider in the next TIP. The report also identified longer-term issues for further discussion. The report was presented to the TPB in February 2002. In early 2003, TPB appointed Mayor Kathy Porter as chair. In FY 2005, staff will be responsible for organizing and staffing the advisory committee, conducting research on issues, and writing a 2004 report on priority projects, programs, services and issues.

Oversight:	Transportation Planning Board
Cost Estimate:	\$170,400
Products:	A proactive public involvement process that provides complete information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in developing plans and TIPs; and the monthly TPB News. Access for All report on projects, programs, services and issues important to low-income, minority and disabled communities. December 2004
Schedule:	On-going activity with forums and meetings linked to schedules for new TIP preparation and 2005 CLRP

J. TPB ANNUAL REPORT

Each year, DTP staff prepares a Transportation Special Report (*The Region*). This year's report will cover the main activities completed in 2004 and the 2004 CLRP. About 4,000 copies of the report will be printed and distributed around the end of FY 2005.

Oversight:	Transportation Planning Board
Cost Estimate:	\$76,600

Product: *Region* magazine

Schedule: June 2005

K. 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:

1. Supervision of the preparation, negotiation, and approval of the annual work program and budget, involving the State Transportation Agencies, the Technical Committee, the Program Committee, and the TPB.
2. Day-to-day monitoring of all work program activities and expenditures by task.
3. Day-to-day management and allocation of all staff and financial resources to insure that tasks are completed on schedule and within budget.
4. Preparation for and participation in regular meetings of the TPB, the Program Committee, the Technical Committee, and the State Technical Working Group.
5. Attendance at meetings of other agencies whose programs and activities relate to and impact the TPB work program, such as local government departments.
6. Response to periodic requests from TPB members, federal agencies, Congressional offices, media, and others for information or data of a general transportation nature.
7. Review of transportation proposals of regional importance submitted to COG/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 earmarked 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: \$429,700

Products: Materials for the meetings of the TPB, the Program 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

II. 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 amended and issued in the August 15, 1997 FEDERAL REGISTER; additional federal guidance was also published at various times since then by the EPA, FHWA and FTA.

A work program to analyze the 2004 constrained long range plan and the FY 2005-10 TIP for air quality conformity consistent with these regulations has now been drafted for review and comment. The current schedule for adoption of the updated plan and TIP calls for most of the work activities to be performed in FY2004, with the final report, response to comments and adoption in July 2004. Subsequent major activities in FY2005 will include development and execution of a work program for the conformity assessment of the 2005 CLRP and FY2006-11 TIP.

In addition, in 2004 EPA is expected to complete its nonattainment designations (geographic area and severity classification) for '8 hour' ozone and 'particulate matter 2.5 microns or less' (PM2.5) categories. Eight hour ozone designations are expected in April and PM2.5 designations are expected in December 2004, with effective dates occurring within 60 days of each designation. The Washington area is expected to be designated as nonattainment for both pollutants. If this does occur, the TPB will have 12 months to demonstrate conformity of its plans and programs according to forthcoming requirements associated with each pollutant, or otherwise face a conformity lapse. While specific work activities cannot be described until EPA establishes conformity criteria for each pollutant, this work element is being planned to address such technical and consultation activities.

TPB procedures to address interagency and public consultation requirements, also originally specified in the November 1993 regulations, were formally adopted by the Board initially in September 1994. The current version of the consultation procedures, amended to reflect additional requirements in the 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 FY 2005 air quality conformity work program will include the following tasks.

1. Complete conformity analysis of the 2004 constrained long range plan and the

FY 2005-10 TIP, including addressing any emissions mitigation measures, finalizing a draft 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. Execute technical and consultation activities to meet conformity requirements associated with 8 hour ozone and PM2.5 nonattainment designations.
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 MWAQC's involvement in the public and interagency consultation process.
4. Prepare and execute a work program for analysis of the 2005 constrained long range plan and the FY 2006-11 TIP, using updated project inputs, planning assumptions, travel demand models, 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. Coordinate project solicitation, documentation, and emissions reduction analysis associated with CMAQ projects.
6. 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:	\$298,900
Products:	Final report on Air Quality Conformity Determination of 2004 CLRP and FY 2005-10 TIP, including assessment with respect to the 8 hour ozone standard and PM2.5 standard; Draft report on Air Quality Conformity Assessment of 2005 CLRP and FY 2006-11 TIP
Schedule:	June 2005

B. MOBILE EMISSIONS ANALYSIS

FY2004 work activities included the preparation of required elements of a state air quality implementation plan (SIP) to meet severe area requirements for ozone, using EPA's Mobile6 emissions factor model and TPB's Version 2.1 travel demand model and other updated data sets and planning assumptions. These work activities will produce updated mobile source emissions budgets and transportation emissions reduction measure (TERM) analyses in the course of meeting attainment requirements by the year 2005.

In FY2005 work activities will shift to address new (forthcoming) EPA nonattainment designations and requirements for 8 hour ozone and particulate matter 2.5 microns or less (PM2.5) standards. The mobile source emissions inventory development process will be similar to that conducted previously, e.g., application of TPB's travel demand estimates and EPA's Mobile6 emissions factor model, but will now address additional pollutants and precursors. FY2005 work activities will continue to address TERM analyses and research into development of refined data inputs to the Mobile6 model. The work program will include the following tasks:

1. Using MOBILE6, with consultant assistance as needed, (1) review and update as needed mobile source emissions inventories for use in analysis of attainment of the 8 hour ozone standard and PM2.5 standard, and (2) develop emissions factors for use in CLRP/TIP air quality conformity analysis, likely 2005, 2015, 2025 and 2030 forecast years, and other years to be determined according to the region's forthcoming nonattainment designations.
2. Analyze new transportation emissions reduction measures, as well as examine previous proposals, and evaluate their effectiveness and cost-effectiveness in reducing emissions
3. Participate in state and MWAQC technical and policy discussions, public forums and hearings.

For the above work elements, in conjunction with DTP staff and in consultation with the TPB, provide funding to COG's Department of Environmental Programs for the following activities: (1) provision of data, progress reports and written reports in response to TPB requests relating to air quality work activities; (2) provision of timely updates to the TPB and its committees on the status of emissions and emissions reduction research / implementation strategies associated with all emissions source categories; and (3) provision of assistance and review to TPB in development of emissions factors required for mobile source emissions inventories associated with air quality conformity and SIP planning.

- Continue research activities (as needed) to explore the possibilities: (1) of obtaining vehicle registration data in categories more closely aligned to the vehicle categories used in Mobile6 and (2) of obtaining odometer data, along with vehicle identifier code and gross vehicle weight rating data, from the air

management agencies in order to develop refined VMT data by vehicle weight class for the Washington region.

- Provide support to Commuter Connections staff in developing implementation plans for adopted, as well as future, TERMS adopted by the TPB.
- Address VMT tracking requirements as per Clean Air Act requirements.

Oversight:	Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees
Cost Estimate:	\$397,400
Products:	Mobile source emissions inventories to meet 8 hour ozone and PM2.5 requirements; report on TERM evaluation; comparison of estimated and observed VMT results.
Schedule:	June 2005

C. REGIONAL STUDIES

Regional Mobility and Accessibility Study

In FY2005, under the direction of the TPB, and with technical insight and guidance from a Joint Technical Working Group composed of members from the TPB Technical Committee, the Planning Directors' Technical Advisory Committee and the MWAQC Technical Advisory Committee, staff will analyze alternative transportation and land use scenarios specified for the Regional Mobility and Accessibility Study. Staff will complete the modeling of the travel demand and air quality impacts of specified alternative transportation and land use scenarios will be modeled using the Version 2.1 travel demand forecasting model and the Mobile 6 air quality model.

Once the travel demand and air quality impacts of the alternatives have been modeled, measures of effectiveness approved by the TPB will be used to evaluate the travel demand effects, land use, environmental and other impacts of the alternative scenarios. Based on the modeling and the evaluation of the alternative scenarios, up to two "composite scenarios" will be defined, further analyzed and evaluated.

Staff will prepare a draft report and coordinate the review of this draft report by all citizens advisory, technical, and policy committees participating in this study. After

review of the draft report by all relevant policy and technical committees, staff will present a draft final report and all comments received to the TPB.

Oversight:	Technical Committee, Joint Technical Working Group
Estimated Cost:	\$603,400
Products:	Improving Mobility and Accessibility Study Report
Schedule:	June 2005

D. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING PROCESSES

In FY2005, staff will continue to work with COG's Cooperative Forecasting Subcommittee and Planning Directors Technical Advisory Committee to update and refine COG's Cooperative Forecasts of future land activity. Staff will work with these committees to ensure that regional transportation system assumptions are explicitly considered in the development of these updated land activity forecasts. Staff will update and maintain Cooperative Forecasting land activity databases that are used as input into COG/TPB travel demand forecasting models. This work will include development of Round 7 population, household and employment forecasts for both COG member and non-member jurisdictions in the expanded cordon area and preparation of Cooperative Forecasting land activity data files for the 2191 Transportation Analysis Zone (TAZ) system.

Staff will work with the Cooperative Forecasting Subcommittee and the Planning Directors Technical Advisory Committee to assess the effects of significant TIP and CLRP changes on future land activity forecasts as part of the process to update COG's Cooperative Forecasts. Staff will also work with these committees to document key land use and transportation assumptions used in developing the Round 7 Cooperative Forecasts and responding to public comments on these forecasts.

Oversight:	TPB Technical Committee, Planning Directors Technical Advisory Committee.
Estimated Cost:	\$167,600
Products:	Update and maintenance of Cooperative

Forecasting Land Activity Data Files,
Documentation of key cooperative forecasting
land-use and transportation assumptions.

Schedule: May 2005

III. DEVELOPMENT OF NETWORKS AND MODELS

A. NETWORK DEVELOPMENT

During FY2004, a series of transit and highway networks were developed for an expanded cordon to meet the time-of-day requirements of the Version 2.1 travel demand models supporting the air quality conformity analysis of the TIP and CLRP. COG's GIS, ARC/INFO, was employed to link together a series of attributes needed to create networks in TP+ for the modeling process. Use was made of ARC/INFO to graphically depict these networks, thereby facilitating the development effort. To support the TIP and CLRP Conformity process, several networks were developed for 2005, 2015, 2025, and 2030.

FY2005 efforts will focus on the development of TP+ highway and transit networks on the expanded cordon using information gathered electronically and/or in paper format. This process will make use of available information in COG's GIS and the Data Clearinghouse to facilitate development of networks in Version 2.1 model format supporting 1) air quality conformity analysis and 2) scenario testing as part of TPB regional studies.

Activities in FY2005 will begin with the compilation of the latest available transit route and schedule information (from the above sources) in the peak and off-peak formats required for the Version 2.1 travel demand model. All traffic count data will be converted to AWDT format for use in highway networks required for these models. A set of TP+ networks for highway and transit will be coded from this information depicting current year conditions.

Using these networks as a starting point, a series of FY2006-2011 TIP and Plan Conformity networks will be developed for the following analysis years: 2005, 2015, 2025, and 2030, and other years to be determined by the requirements of the new eight-hour air quality standard. Tasks involved are as follows:

- receive and organize project inputs to the FY2006-2011 TIP and amended CLRP;
- code, edit, and finalize networks for highway, HOV, and transit;
- develop transit fare matrices consistent with these networks.

Finally, documentation and training in the development of these highway and transit networks will be provided.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$623,900

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

Schedule: June 2005

B. GIS TECHNICAL SUPPORT

In FY2005, staff will continue to provide on-going data maintenance and technical support to staff using the COG/TPB GIS for the development and display of data used in various TPB planning activities, including, the TIP and CLRP, the Bicycle Program, Cooperative Forecasting, Regional Studies, Network and Models Development, Congestion Monitoring and Analysis, and the Regional Transportation Data Clearinghouse.

Staff will continue to enhance the methodology for seamless editing of regional highway and transit networks and provide ongoing maintenance of existing GIS network editing tools. New GIS applications will also be developed to facilitate the edit checking and analysis of highway, transit and HOV networks and travel demand forecasts. Staff will also add new land use and transportation databases to the COG/TPB GIS as these new databases become available.

Staff will provide GIS training on the use of GIS software applications and databases for transportation planning to COG/TPB and local agency staff. In addition to technical support and training activities, staff will also provide on-line and other access to COG/TPB GIS metadata, databases, and applications for state and local transportation planners. Staff will update COG/TPB GIS user documentation and training materials, as required.

Because GIS has become a key component of local, regional, and state transportation planning activities, staff will continue to coordinate its GIS efforts with state DOTs, WMATA, and the local governments through quarterly meetings of COG's GIS Committee and other activities. Staff will also work with local and state agency staff to facilitate GIS data sharing via the Internet.

Staff will also continue to maintain and update COG/TPB GIS hardware and software as required. This will include upgrades to ArcGIS and Oracle software and additional GIS hardware to accommodate greater use of GIS by COG/TPB and local agency staff.

Oversight: Technical Committee

Estimated Cost: \$442,300

Products: Updated GIS software, databases, User documentation, Training materials, Report on FY 2005 GIS activities

C. MODELS DEVELOPMENT

During FY2004, the Transportation Research Board (TRB) Committee reviewing the TPB travel demand modeling process completed a report which made recommendations for improvements in several areas. Examples of these were to take measures to improve Root Mean Square Error (RSME), incorporate bus speeds in transit networks as a function of highway congestion, improve the speed feedback process, review the use of adjustment factors in an effort to reduce their use, and to begin development of an explicit forecasting model for commercial vehicle trips. The TRB Committee also expressed a view that more effort was needed to improve model validation in the area of transit ridership forecasting.

In response to these recommendations, TPB staff undertook to implement several changes in FY2004. These included beginning the migration of transit sub-models to the new TP+ software platform, beginning a sampling plan for collection of truck and commercial vehicle trip data, implementing a methodology to estimate bus speeds as a function of highway speeds in transit network coding, improving the speed feedback of the Version 2.1 model to ensure that speeds employed in mode choice modeling were consistent with speeds employed in other steps of the modeling process, and incorporating refinements to the emissions post-processor. These updated modeling procedures incrementally advance the practice of travel demand modeling in the Washington region, consistent with the TPB Travel Forecasting Subcommittee's policy adopted in 1998. Additionally, TPB staff obtained FTA's SUMMIT software package employed in evaluation of transit environmental impact studies to better understand how the software responds to various components of the travel demand forecasting procedures.

The FY2005 effort in Models Development will focus on the following tasks:

- Completing the migration of the transit sub-models to the TP+ software platform;
- Beginning a longer term upgrade of transit modeling by starting work on a nested logit mode choice model, updating fare matrix procedures, and examining ways to better model and constrain the demand for transit park-n-ride facilities;
- Completing a design for sampling truck and commercial vehicle traffic counts, to be followed in coming years by the development of new truck and commercial vehicle forecasting models;
- Continuing to seek ways to reduce the use of adjustment factors in the

modeling process;

- Continuing the effort to maintain consistent treatment of speeds in all steps of the modeling process, including both the mode choice model and the emissions post-processor;
- Begin efforts to develop a framework for tour-based and/or activity-based models in the future;
- Continuing to gain familiarity with the SUMMIT software package employed by the FTA in reviewing transit environmental impact studies;
- Continuing the development of a more formal airport access demand model; and
- Participation on a national MPO panel being established to recommend practices in travel demand modeling.

Staff will continue to review best practice in travel demand modeling through participation in the Travel Model Improvement Program (TMIP), Transportation Research Board, and literature reviews. Staff will provide documentation and applicable training for all products from the models development program.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$641,600
Products	Recommendations for continued updating of the travel demand modeling process, documentation of all activities
Schedule:	June 2005

D. SOFTWARE SUPPORT

This work element supports the maintenance of the COG/TPB microcomputer-based travel demand forecasting model set as used in applications work and maintenance of the mobile source emissions factor model as used in air quality conformity and state implementation plan (SIP) work. Development and testing of revisions and upgrades to software currently in use and the testing of new software and data storage, retrieval and transfer systems for possible adoption are included in work done under this element. 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 and evaluates such software and systems through in-house testing on a demonstration basis or through acquisition as warranted.

Oversight: TPB Technical Committee

Cost Estimate: \$101,500

Products: Operational travel forecasting model set (current model set plus new software selected/installed in FY 2005).
Operational emissions factor model.
Operational data storage and retrieval systems.
Operational data transfer systems to serve inside and outside users.

Schedule: June, 2005

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VI. TRAVEL MONITORING

A. CORDON COUNTS

During FY2004, data collection was conducted in the Spring for a report to be prepared in FY2005 entitled, "2004 Performance of Regional High-Occupancy Vehicle Facilities on Interstate Highways in the Washington Region: An Analysis of Passenger and Vehicle Volumes." Also during FY2004, data collection was completed in the Summer for the External Truck Origin / Destination Survey. Documentation of this survey was completed at the close of FY2004. The multi-year schedule of activities for the Cordon Count program is shown in the accompanying figure. The schedule of activities in most instances involves processing of data and report writing during the first half of a fiscal year for data collected in the second half of the preceding fiscal year, followed by data collection for another activity in the second half of the new fiscal year. This schedule of activities reflects the consensus of the TPB Technical Committee during its review of the travel monitoring program in FY2000.

In the fall of FY2005, staff will prepare a technical report documenting the performance of regional high-occupancy vehicle facilities in the Washington region, as measured in the spring of FY2004. The task includes merging of all data collected in spring 2004, summarizing the data for documentation, and preparation of a report.

In spring of 2005, staff will collect truck and commercial vehicle classification count data as developed in a sampling plan specified as part of FY2004 models development activities. Data obtained in this project is to serve as the starting point for developing a synthetic origin – destination pattern of internal truck and commercial vehicle travel by weight group, in lieu of a major new internal truck and commercial vehicle survey. The latter was last attempted in 1996, and, consistent with experience around the country, fell short of meeting the needs of developing an observed truck origin – destination travel pattern, suitable for the updating of medium and heavy truck forecasting models or for creating a commercial vehicle forecasting model recommended by the TRB Committee reviewing the TPB travel demand modeling process and the joint TPB / MWAQC Mobile 6 Task Force. It is envisioned that the approach taken to estimate a synthetic origin – destination pattern from these truck counts will be similar to efforts conducted in other metropolitan areas employing this technique. The synthetic pattern will be developed in FY2006 using the count data obtained from this project in FY2005.

Oversight: Travel Forecasting Subcommittee

Cost Estimate: \$365,200

Figure 7

Congestion Monitoring Work Program

Activity	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Freeway peak period congestion		=====			=====		
Freeway off-peak congestion			=====				
Arterial highway congestion	Yr 2 of 3	Yr 3 of 3	Yr 1 of 3	Yr 2 of 3	Yr 3 of 3	Yr 1 of 3	Yr 2 of 3

Notes: Freeway off-peak congestion monitoring will be changed to a 5 year interval with the next data collection in FY 2006.
 Freeways: Data collection in Spring; report preparation and review in Summer/Fall of next fiscal year.
 Arterials: Data collection in Fall/Winter; report preparation and review in Winter/Spring of same fiscal year.

Products: Report on the Regional HOV Monitoring Project;
Truck and Commercial Vehicle Classification Count Data

Schedule: report – Spring 2005; data files – June 2005

B. CONGESTION MONITORING AND ANALYSIS

During fiscal years FY 2000 through FY 2002, staff completed one cycle of arterial highway congestion monitoring on 363 miles of arterial highways. In FY 2003 and FY 2004, the second cycle of data collection and analysis was completed on two thirds of the routes. In FY 2005 staff will revisit the routes studied in FY 2002 and complete the final year of the second cycle of data collection. Staff will report on the findings of the FY 2005 survey and will compare the second cycle of data with the first cycle and report on the changes to the routes studied over time.

For the limited access highways in the region we perform an aerial survey to study the performance of the system during the peak period. Congestion observed during the peak periods on a regular basis, i.e., excluding that caused by incidents, is called recurring congestion. The first such survey was conducted in Spring 1992 and has been repeated every three years (1996, 1999, 1999, and 2002). The data provided by these surveys are used to identify the location and extent of freeway congestion and are reported as part of the Congestion Management System (CMS). This performance assessment of the region's freeway system will be repeated during Spring 2005. Staff will develop a request for proposal and a consultant will be selected to perform the aerial survey during Spring 2005. Data collection and analysis will be completed in FY 2005. The final report will be completed in FY 2006.

Total Cost: \$ 353,700

Oversight:: Travel Forecasting Subcommittee

Products: Arterial Travel Time Report
Data files of traffic densities (to be analyzed in FY 2006)

Schedule: June 2005.

C. TRAVEL SURVEYS AND ANALYSIS

1. Household Travel Survey

In FY 2005, staff will continue to provide data files, user documentation and technical support to the users of COG/TPB travel survey databases. This work will include special tabulations from these travel survey databases to support other COG/TPB transportation planning activities and update of user documentation as required.

Staff will complete the design of a large-sample methodologically enhanced activity based regional household travel survey. Methodological enhancements to be considered in this design include: (1) development of a GIS-based housing unit sample frame that would enable selection of survey households by land use area type, (2) development of a multi-modal data collection survey methodology that permits household recruitment and diary retrieval by mail, telephone, Internet and in-person contacts, (3) a GPS vehicle tracking add-on sub-sample, and (4) a follow-up survey of non-responding households and household members.

Data collection for this methodologically enhanced activity-based regional household survey can begin in the spring of 2005, if additional funding for this effort is identified.

Estimated Cost:	\$178,100
Oversight:	Travel Forecasting Subcommittee
Products:	Regional Household Travel Survey Design
Schedule:	December 2004

2. Census Journey to Work Analysis

In FY 2005 staff will tabulate and analyze Census Transportation Planning Package (CTPP) worker flow data collected in the 2000 Census by small area Transportation Analysis Zones (TAZs). These tabulations will analyze TAZ to TAZ worker flows by commuting mode, income, and vehicle availability and travel time. Staff will also prepare technical report summarizing major findings of the CTPP 2000 Journey to Work analysis.

Staff will also develop trip conversion factors to convert the CTPP 2000 journey-to-work worker flow data into daily Home-Based-Work (HBW) "commuting" trips at the TAZ level in a format consistent with that used by COG/TPB travel demand forecasting models. These trip conversion factors will be applied to the CTPP 2000 data and a TAZ-level database for the travel model refinement and validation efforts will be built. Staff will also use the analysis of the CTPP 2000 data to suggest refinements to the current

COG/TPB 2191-TAZ-area system.

Oversight:	Travel Forecasting Subcommittee
Estimated Cost:	\$246,500
Products:	Technical Memoranda and Report
Schedule:	June 2005

3. Regional Travel Trends Report

In FY 2005, staff will prepare a policy report summarizing changing travel trends and commuting patterns in the region. This report will analyze COG/TPB travel data collected in FY 2004 and prior fiscal years. Travel data in the Regional Transportation Data Clearinghouse, Cordon Count reports, Travel Surveys, and Freeway Aerial Surveillance studies and other existing COG/TPB data sources will be used in preparing this report. The report will also analyze regional demographic and economic changes in the region and attempt to explain how these changes are influencing current travel trends in the region. This will be a policy level summary report that will be directed to informing the TPB and other policy officials on how travel trends in the region are changing and offering some explanation of why these trends are changing.

Oversight:	TPB Technical Committee
Estimated Cost:	\$143,600
Products:	Policy Report
Schedule:	June 2005

D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

Efficient access to a comprehensive data set on observed and forecast vehicular and passenger movements on the region's transportation system is vitally important for transportation planning, air quality analysis, models development, congestion management and project evaluations.

Staff will continue and expand formal arrangements with local, state, WMATA, and other regional agencies to transfer data to and from the Regional Data Clearinghouse. Staff will also update Clearinghouse databases with FY 2003-FY 2004 highway and transit, as they become available. Additionally, staff will add transportation-related 2000 Census data to the Clearinghouse by TAZ. Staff will also continue to develop the data

infrastructure necessary to incorporate ITS data into the Clearinghouse and refine procedures for filling gaps where current data might not be available. Staff will also update the Regional Transportation Clearinghouse user manuals and documentation.

Once the Regional Clearinghouse database has been updated with FY03-04 data, staff will distribute a draft CD-ROM version of the updated Clearinghouse database with associated documentation to state and local transportation agency Clearinghouse contacts for their review. After this local review has been completed and all comments have been addressed, staff will distribute the final FY 2004 Clearinghouse database to all TPB participating agencies.

Estimated Cost:	\$61,200
Oversight:	Travel Forecasting Subcommittee
Products:	Updated Clearinghouse Database and Documentation
Schedule:	June 2005

V. TECHNICAL ASSISTANCE

The TPB work program includes an activity for responding to requests for technical assistance from 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 used to support corridor, project, and sub-area transportation and land use studies throughout the region.

Technical assistance projects anticipated in FY2005 are described below. Total funds allocated to the District of Columbia, Maryland, Virginia, and WMATA for technical assistance in FY2005 are shown in Table 2.

A. DISTRICT OF COLUMBIA

Program Development

This project is set up 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 DCDPW staff to discuss proposed projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and progress reporting throughout the projects.

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

Miscellaneous Services and Data Requests

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
Schedule:	on-going activity

The balance of the program for FY 2005 remains to be specified.

TOTAL DC COST ESTIMATE: \$217,500

B. MARYLAND

Program Development/Management

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

Cost Estimate: \$20,000

Product: Detailed scopes of work as needed, progress reports.

Schedule: on-going activity

Miscellaneous Services

The miscellaneous account is a mechanism established to address requests from MDOT, Frederick, Montgomery and Prince George's counties which are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by email or fax; this is particularly useful for quick turnaround. Past work has included requests for hard copy, plots, or electronic data files from any of the planning work activities at COG. Other requests have included participation in technical review committees and task forces and execution of small technical studies.

Cost Estimate: \$51,600

Schedule: on-going activity

MD SHA/MTA Technical Support - As part of technical assistance work activities in previous years staff installed the regional travel demand modeling process in the offices of SHA's Travel Forecasting Section. Staff has subsequently worked with SHA in executing alternatives at the regional level and has provided staff training to both SHA and MD MTA staff members.

As part of these previous work activities, staff updated the transportation networks, land activity data files and travel demand models in SHA's offices to reflect the latest regional data files and modeling procedures. In FY 2005 staff will continue to work with SHA and MTA staff in project planning to apply these modeling procedures and to provide specific project assistance as requested under categories of: project planning, feasibility studies in selected corridors, and other planning studies. Staff also reviews and provides comment on milestone documentation reports, e.g., draft environmental impact statements, alternatives retained for detailed study, for various project planning studies in Maryland.

Cost Estimate: \$90,000

Schedule: As developed with SHA and MTA

Subregional Studies

These projects represent system level forecasting work which is performed in support of MDOT project planning activities. In recent years, COG staff developed and analyzed travel forecasts for various multimodal alternatives consisting of improvements to general use highway lanes, HOV lanes, rail and bus alternatives for different alignments in various corridors throughout Maryland. These activities will be carried out within this category on a project by project basis, involving separate scoping, budgeting and reporting.

Projects envisioned in FY 2005 include the following corridors:

Capital Beltway Corridor Transportation Study - Staff will continue to provide support to evaluate the potential for HOV, transit, and managed lanes in the Maryland Capital Beltway corridor using the regional travel demand forecasting process. Alternatives previously assessed include fixed guideway metrorail and light rail, express bus service on the proposed HOV lanes on the Beltway, and additional express bus service beyond that included in the CLRP - with and without use of HOV lanes.

COG/TPB's primary systems level work activities have been completed. Follow-up work tasks will represent refinements to these alternatives analyses and may include:

- a) participating in study team meetings,
- b) executing the travel demand model,
- c) using GIS to evaluate the travel demand results,
- d) presenting the results to the study team and other related forums as requested, and
- e) creating a summary report of the travel demand results.

Cost Estimate: \$25,000

I-270 / US15 Multimodal Corridor Study - This work element will continue to assess the potential travel demand relief associated with combination alternatives which have been carried forward and documented in the project's Draft Environmental Impact Statement. These alternatives include TDM, HOV, general use lane, and fixed guideway transit strategies. Refinements to analyses of these scenarios will be continued in FY2005.

Specific work tasks may include:

- a) participating in study team meetings,
- b) executing the travel demand model,
- c) using GIS to evaluate the travel demand results,
- d) presenting the results to the study team and other related forums as requested, and
- e) creating a summary report of the travel demand results.

Cost Estimate: \$25,000

Intercounty Connector Study (ICC) - In FY2003 and 2004 staff executed the systems level travel demand forecasts for the ICC, testing various scenarios for different corridors and forecast years. FY2005 activities will build upon those work activities.

Specific work tasks will include:

- a) participating in study team meetings,
- b) developing inputs to the travel demand model, either as TPB staff inputs or in concert with the project study team and consultants,
- c) executing the travel demand model,
- d) using GIS to evaluate the travel demand results,
- e) presenting the results to the study team and other related forums as requested,
- f) providing electronic files of work products to SHA's consultants for peak hour level of service analysis, and
- g) creating summary reports of the travel demand results.

Cost Estimate: \$125,000

Bi-County Transitway - Recent activities on this project planning study have primarily been conducted by consultants to the Maryland MTA. Those planning efforts have utilized TPB's Version 2.1 travel demand model. This project is designed to provide technical support to MTA and their consultants, both in their primary application of the travel demand models (assistance with development of model inputs and evaluation of model outputs) and in subsequent incorporation of new transit analysis features of the model now under development, e.g., submodal choice and mode of access submodels.

Cost Estimate: \$75,000

TOTAL V.B COST ESTIMATE: \$411,600

C. VIRGINIA

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 VDOT and VDR&PT staff to discuss projects, draft and finalize work statements and tasks, create project accounts when authorized, and report progress on projects throughout the year.

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

Miscellaneous Services

- A. This work element provides VDOT with the ability to undertake limited scope studies and or data gathering activities identified during its regional and sub-regional planning activity during fiscal year 2004. The Department is currently engaged in examining the merits and priority of a few competing projects which include: traffic volume studies in activity centers outside the Capital Beltway, strengthening of some components of the regional travel demand model, completion of an access/egress study along I-395 and enhancing the district-wide HOV traffic volume data collection program.

- B The miscellaneous account is also a mechanism established to address requests, which are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by fax; this is particularly useful for quick turnaround. Work items include: requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG, participation in technical review committees and tasks forces and execution of small technical studies.

The balance of the program for FY 2005 remains to be specified.

TOTAL V.C COST ESTIMATE: \$328,400

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
Product:	specific scopes of work
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:	\$5,000
Schedule:	on-going activity

The balance of the program for FY 2005 remains to be specified.

TOTAL V.D COST ESTIMATE: \$134,800

VI. CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM

The goal of the CASP program is to provide a process and products that support the planning, development and operation of airport and airport-serving facilities in a systematic framework for the Washington-Baltimore region. The elements of the multi-year CASP work program to be performed during FY 2005 are as follows:

Ground Access Travel Time Study

A critical and often overlooked component of the region's airport system is the transportation linkage between the airports and the surrounding communities. Travel time, quality of service and costs associated with the ground journey to the airport have proven to affect the choice of airport and even the decision to travel by air. This study will permit analysis of travel time trends to the three commercial airports, as well as analysis of any new transportation improvements.

The purpose of the Ground Access Travel Study Update would be to: (1) provide current data on travel times and levels of services for highway and transit access to the region's three commercial airports in support of airport access planning activities; (2) analyze changes in peak-period delay and levels of service on principal airport serving roadways and transit facilities; and, (3) analyze changes in highway and transit accessibility to airports resulting from recent highway and transit improvements.

Cost Estimate: \$250,000

Ground Access Forecast Update

In Volume II of the Regional Airport System Plan (Ground Access), airport system and facility planning was incorporated into the overall regional transportation planning process. The approach was taken to adapt the traditional four-step transportation planning modeling process to incorporate and specifically focus on airport-related travel, allowing the impact of airport activity on the regional transportation system to be estimated.

This project will update the ground access forecasts of travel to the region's three major commercial airports, using a specially adapted version of the TPB's travel demand forecasting model. This update will include all major modes of ground access to the region's airports. These ground access forecasts will then be used as inputs for the update of the TPB's Constrained Long Range Plan and will serve as the basis for revising the Ground Access Element of the Regional Airport System Plan.

Cost Estimate: \$222,000

TOTAL VI. COST ESTIMATE: \$472,000

