

PROPOSED AMENDMENT TO THE FY 2006 TPB WORK PROGRAM AND BUDGET

The following three tables indicate the proposed changes in **bold**. This is followed by the proposed changes in ~~strike~~ and **bold** in the text and budgets for the affected work activities.

TABLE 1
FY 2006 TPB PROPOSED FUNDING BY FEDERAL STATE AND LOCAL SOURCES
(July 1, 2005 to June 30, 2006)

	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 2006	393,700	1,136,600		1,530,300
UNOBLIGATED FY 2004	37,000	118,400		155,400
CARRYOVER FY 2005	10,964	0		10,964
SUBTOTAL	441,664	1,255,000		1,696,664
ALLOTMENTS PROVIDED BY MDOT				
NEW FY 2006*	725,270	4,602,064		5,327,334
UNOBLIGATED FY 2004	56,800	161,300		218,100
CARRYOVER FY 2005	19,436	0		19,436
SUBTOTAL	801,506	4,763,364		5,564,870
ALLOTMENTS PROVIDED BY VDOT				
NEW FY 2006	596,100	2,306,250		2,902,350
UNOBLIGATED FY 2004	48,700	244,504		293,204
CARRYOVER FY 2005	24,425	57,175		81,600
SUBTOTAL	669,225	2,607,929		3,277,154
TPB BASIC PROGRAM				
TOTAL NEW FY 2006	1,715,070	8,044,914		9,759,984
TOTAL UNOBLIGATED FY 2004	142,500	524,204		666,704
SUBTOTAL	1,857,570	8,569,118		10,426,688
TOTAL CARRYOVER FY 2005	54,825	57,175		112,000
TOTAL BASIC PROGRAM	1,912,395	8,626,293		10,538,688
GRAND TOTAL	1,912,395	8,626,293	405,300	10,943,988

"New FY2006 funds" refer to newly authorized funds for the FY2006 UPWP

"Unobligated FY2004 funds" refer to unexpended funds from the completed FY2004 UPWP

"Carryover FY2005 funds" are programmed from the FY 2005 UPWP to complete specific work tasks in the FY2006 UPWP

TABLE 2
TPB FY 2006 WORK PROGRAM BY FUNDING SOURCES

WORK ACTIVITY	TOTAL COST	FTA/STATE/ LOCAL	HWA/STATE LOCAL	OTHER FUND
I. PLANS, PROGRAMS AND COORDINATION				
A. Unified Planning Work Program (UPWP)	68,000	12,340	55,660	
B. Transp Improvement Program (TIP)	145,800	26,457	119,343	
C. Constrained Long-Range Plan	529,900	96,158	433,742	
D. Management Operations/ Emergency Preparedness	348,900	63,313	285,587	
E. Financial Plan	102,300	18,564	83,736	
F. Private Enterprise Participation	17,600	17,600		
G. Bicycle and Pedestrian Program	62,000	11,251	50,749	
H. Human Service Transportation Coordination	101,000	18,328	82,672	
I. Public Participation	311,300	56,490	254,810	
J. Annual Report	77,000	13,973	63,027	
K. DTP Management	434,500	78,846	355,654	
L. Emergency Preparedness Planning	60,000	10,888	49,112	
M. Freight Planning	50,000	9,073	40,927	
Subtotal	2,308,300	433,280	1,875,020	
II. FORECASTING APPLICATIONS				
A. Air Quality Conformity	451,100	81,859	369,241	
B. Mobile Emissions Analysis	572,200	103,834	468,366	
C. Regional Studies	654,500	118,768	535,732	
D. Coord Coop Forecasting & Transp Planning	505,400	91,712	413,688	
Subtotal	2,183,200	396,173	1,787,027	
III. DEVELOPMENT OF NETWORKS/MODELS				
A. Network Development	677,500	122,942	554,558	
B. GIS Technical Support	479,400	86,994	392,406	
C. Models Development	999,000	181,283	817,717	
D. Software Support	172,200	31,248	140,952	
Subtotal	2,328,100	422,467	1,905,633	
IV. TRAVEL MONITORING				
A. Cordon Counts	417,500	75,761	341,739	
B. Congestion Monitoring and Analysis	501,100	90,932	410,168	
C. Travel Surveys and Analysis				
Household Travel Survey	835,700	151,650	684,050	
Regional Travel Trends Report	144,400	26,203	118,197	
D. Regional Trans Data Clearinghouse	257,500	46,727	210,773	
Subtotal	2,156,200	391,273	1,764,927	
Core Program Total (I to IV)	8,975,800	1,643,193	7,332,607	
V. TECHNICAL ASSISTANCE				
A. District of Columbia	206,600	12,766	193,834	
B. Maryland	715,500	44,211	671,289	
C. Virginia	456,800	28,226	428,574	
D. WMATA	184,000	184,000		
Subtotal	1,562,900	269,202	1,293,698	
Total, Basic Program	10,538,700	1,912,395	8,626,305	
VI. CONTINUOUS AIRPORT SYSTEM PLANNING - CASP				
A. Air Passenger Origin/Destination Forecast Update	200,000	-	-	200,000
B. Air Cargo Element Update	205,300	-	-	205,300
Subtotal	405,300	-	-	405,300
GRAND TOTAL	10,944,000	1,912,395	8,626,305	405,300

TABLE 3

WORK ACTIVITY	DIRECT SALARIES DTP STAFF	DIRECT SALARIES OTHER COG STAFF	M & A 27%	LEAVE BENEFITS 18%	FRINGE BENEFITS 16%	INDIRECT COSTS 42%	DATA & PC COSTS	CONSULTANT	DIRECT COSTS	TOTAL
I. PLANS, PROGRAMS AND COORDINATION										
A. Unified Planning Work Program	25,883	206	7,044	5,964	6,255	19,048	100	0	3,500	68,000
B. Transportation Improvement Program	53,086	2,859	15,105	12,789	13,414	40,846	200	0	7,500	145,800
C. Constrained Long-Range Plan	173,692	17,741	51,687	43,761	45,901	139,768	1,250	50,000	6,100	529,900
D. Operation, Coordination/Emergency Preparedness	127,734	12,716	37,922	32,107	33,677	102,545	150	0	2,050	348,900
E. Financial Plan	13,698	1,311	4,052	3,431	3,599	10,958	100	65,000	150	102,300
F. Private Enterprise Participation	6,884	206	1,914	1,621	1,700	5,176	100	0	0	17,600
G. Bicycle and Pedestrian Program	24,127	544	6,661	5,640	5,915	18,013	100	0	1,000	62,000
H. Human Service Transportation Coordination	22,416	18,500	11,047	9,353	9,811	29,873	0	0	0	101,000
I. Public Participation	58,387	920	16,013	13,558	14,220	43,301	100	150,000	14,800	311,300
J. Annual Report	20,964	0	5,660	4,792	5,027	15,306	100	0	25,150	77,000
K. DTP Management	81,189	15,631	26,141	22,133	23,215	70,690	0	0	195,500	434,500
L. Emergency Preparedness Planning	24,306	0	6,563	5,556	5,828	17,746	0	0	0	60,000
M. Freight Planning	20,255	0	5,469	4,630	4,857	14,789	0	0	0	50,000
Subtotal	652,622	70,633	195,279	165,336	173,419	528,061	2,200	265,000	255,750	2,308,300
II. FORECASTING APPLICATIONS										
A. Air Quality Conformity	150,075	21,171	46,236	39,147	41,061	125,030	15,080	0	13,300	451,100
B. Mobile Emissions Analysis	192,137	20,797	57,492	48,677	51,057	155,467	11,730	20,000	14,843	572,200
C. Regional Studies	228,118	25,000	68,342	57,863	60,692	184,806	15,080	12,000	2,600	654,500
D. Coord Coop Forecasting and Transp Ping	105,695	76,562	49,209	41,664	43,701	133,069	55,500	0	0	505,400
Subtotal	676,025	143,530	221,280	187,350	196,510	598,372	97,390	32,000	30,743	2,183,200
III. DEVELOPMENT OF NETWORKS/MODELS										
A. Network Development	265,480	0	71,680	60,689	63,656	193,832	19,163	0	3,000	677,500
B. GIS Technical Support	164,959	0	44,539	37,710	39,553	120,439	49,500	0	22,700	479,400
C. Models Development	311,165	0	84,015	71,132	74,610	227,187	25,491	199,000	6,400	999,000
D. Software Support	66,109	0	17,849	15,112	15,851	48,267	4,747	0	4,264	172,200
Subtotal	807,713	0	218,083	184,643	193,670	589,726	98,901	199,000	36,364	2,328,100
IV. TRAVEL MONITORING										
A. Cordon Counts	113,743	0	30,711	26,002	27,273	83,046	10,000	0	126,727	417,500
B. Congestion Monitoring and Analysis	167,598	0	45,251	38,313	40,186	122,366	15,935	50,000	21,450	501,100
C. Travel Surveys and Analysis	139,154	0	37,571	31,811	33,366	101,599	18,500	600,000	18,100	980,100
D. Regional Trans Data Clearinghouse	96,010	0	25,923	21,948	23,021	70,099	15,500	0	5,000	257,500
Subtotal	516,504	0	139,456	118,073	123,845	377,109	59,935	650,000	171,277	2,156,200
Core Program Total (I to IV)	2,652,865	214,163	774,097	655,402	687,444	2,093,268	258,426	1,146,000	494,134	8,975,800
V. TECHNICAL ASSISTANCE										
A. District of Columbia	81,750	0	22,073	18,688	19,602	59,687	2,500	0	2,300	206,600
B. Maryland	287,422	0	77,604	65,705	68,917	209,852	5,296	0	704	715,500
C. Virginia	157,420	0	42,503	35,986	37,746	114,935	2,000	0	66,210	456,800
D. WMATA	64,331	0	17,369	14,706	15,425	46,969	0	25,000	200	184,000
Subtotal	590,923	0	159,549	135,085	141,689	431,444	9,796	25,000	69,414	1,562,900
VI. CONTINUOUS AIRPORT SYSTEM PLANNING										
A. Air Passenger Origin/Destination Forecast Update	81,021	0	21,876	18,521	19,427	59,155	0	0	0	200,000
B. Air Cargo Element Update	83,168	0	22,455	19,012	19,942	60,723	0	0	0	205,300
Subtotal	164,189	0	44,331	37,534	39,369	119,877	0	0	0	405,300
GRAND TOTAL	3,243,788	214,163	933,647	790,488	829,134	2,524,712	268,222	1,171,000	563,548	10,944,000

I. PLANS, PROGRAMS AND COORDINATION

C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

The Financially Constrained Long-Range Transportation Plan (CLRP), under the final planning regulations must be updated at least every three years, and 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. Updates that occur every three years include a financial analysis of transportation revenues expected to be available. ~~The first three-year update was adopted by the TPB in September of 1994. Subsequent three-year updates were adopted by the TPB in July 1997, October 2000 and December 2003. These updates are documented in published reports and are summarized in the 1995, 1997 and 2001, and 2004 Region magazines.~~

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 planning factors in TEA-21. The Vision is the TPB Policy Element of the CLRP.

The Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU) adds several new planning requirements related to the development of the long range transportation plan. During FY 2006, the CLRP work program element will need to begin to address the following requirements, some of which were also raised by the Federal Team during the certification review in September 2005.

- 1. The plan must include a discussion of types of potential environmental mitigation activities.**
- 2. During the development of the long-range plan, the TPB must consult with agencies responsible for land use management, natural resources, environmental protection, conservation, historic preservation, airport operations and freight movements. Consultation shall involve, as appropriate, comparison of the plan to conservation plans or maps and natural or historic resources inventories.**
- 3. Materials describing the plan should be public-friendly, readily accessible on the website, and presented in visual formats (i.e. interactive maps).**

The 2005 CLRP

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

The 2006 Update of the CLRP

In December 2005, TPB will issue a solicitation document requesting project or action input for the 2006 CLRP, a three-year update. Public-friendly materials on the 2006 CLRP, such as a brochure, will be developed in the Spring of 2006. The brochure will include maps, major project descriptions, and analysis from the previous year's CLRP. The purpose of the brochure would be to make recent information on the current plan more accessible to facilitate public comments on the update to the plan. Draft versions of the CLRP, such as a brochure or other materials, will be prepared for review by the TPB Technical Committee, the TPB, and the public between March and September 2006.

Work activities include:

- **Identify potential environmental mitigation activities for major projects in the plan.**
- **Identify the agencies responsible for natural resources, airport operations, freight movements, environmental protection, conservation and historic preservation in D.C., Maryland and Virginia. Identify staff within the agencies that could be consulted with on the plan, and possible strategies to meet the "consultation" requirements during plan development.**

Documentation of the CLRP

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

~~To facilitate public access to the 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 CLRP will be documented in several ways and public materials will be provided during plan development and after plan approval. A “CLRP webpage” will be developed to reflect and clarify the on-going update process for the CLRP. Information on the plan, for the website and in hard copy, will be improved so that the materials are more useful to a variety of audiences, less technical and easier for the public to understand. New materials may include regional transportation issue briefs, brochures, maps, PowerPoint slide shows, and interactive web features such as a community calendar showing public involvement opportunities and a searchable map or database of projects in the plan. The relationship of the transportation strategies and improvements and the regional activity clusters and centers will be described. A regional job accessibility analysis will be reviewed and impacts on low-income and minority populations described. It will also present the forecasted travel demand and transportation system performance impacts. These types of analysis of the plan's performance will be provided before the draft plan is released for public comment. Furthermore, techniques for making plan information more visual will be explored (i.e. interactive maps). Consultant assistance is anticipated for this work activity.

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 FY 1998, 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 FY2003, the CMS element of the CLRP document was updated with current information on congestion management strategies that have been considered or implemented. In FY2006, 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:	\$389,900 \$529,900
Products:	Documentation of 2005 CLRP and improved materials on 2006 Update of the CLRP, new plan webpage with interactive maps and related materials
Schedule:	2005 documentation December 2005 materials on 2006 Update March 2006

D. TRANSPORTATION OPERATIONS COORDINATION AND EMERGENCY PREPAREDNESS PLANNING **MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) PLANNING**

~~Management, operations, and emergency preparedness considerations~~ **Management, operations, and intelligent transportation systems (MOITS)** 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".~~ **The federal SAFETEA-LU legislation requires statewide and regional transportation plans to consider "Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods."** 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, ~~or major disasters or emergencies.~~ **Transportation operations planning is also interrelated with planning for catastrophic events such as severe weather, terrorism, or major disasters or emergencies, and therefore will be coordinated with transportation emergency preparedness planning under that separate work task.**

Under this **the MOITS** work task, TPB will provide opportunities for coordination and collaborative enhancement of transportation technology and operations in the region, advised by its MOITS Policy and Technical Task Forces. **MOITS focuses on regional transportation operations coordination planning, supporting efforts to facilitate strengthening of regional coordination and communications among transportation agencies for collaboration on everyday transportation conditions, and major regional transportation incidents.** Major ~~topics to be addressed~~ aspects of regional transportation coordination planning include the following:

- ~~Regional Transportation Operations Coordination Planning: Support efforts to facilitate strengthening of regional coordination and communications among transportation agencies for collaboration on everyday transportation conditions, major regional transportation incidents and preparedness for regional emergencies, including technical, procedural, and organizational aspects.~~
- **Linkage with Emergency Transportation Planning: Address the interrelationships of planning for everyday transportation management, operations, and technology with preparedness planning for regional emergencies under the Transportation Emergency Preparedness Planning work task, including technical, procedural, and organizational aspects.**
- ITS Architecture: Maintain the regional ITS architecture in accordance with federal law and regulations; help provide coordination of the use of the regional ITS architecture as guidance to regional MOITS project implementation. **Include activities to address technical interoperability of transportation sector communications systems.**
- Traffic Signals: Assist member agencies in the exchange and coordination of interjurisdictional 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.
- **Transportation Safety:** Examine safety issues in relationship to MOITS.
- **Congestion Management Process (CMP): Explore management and operations aspects of the CMP as required in SAFETEA-LU, including performance measure development.** ~~Performance Measure Development:~~ Continue development and refinement of performance measures, costs, benefits, and evaluation information for a MOITS orientation for regional transportation planning.
- **Integrate Transportation Operations Considerations into the metropolitan transportation planning process: Ensure that transportation systems operations are reflected in regional plans and programs. Include considerations of systems conditions variability (in addition to analysis based upon average traffic and transit conditions). Facilitate strengthening of regional coordination and communications among transportation agencies for collaboration on everyday transportation conditions, major regional transportation incidents and preparedness for regional emergencies, including technical, procedural, and organizational aspects.**
- Member Agency Activities: Work as needed with the MOITS activities of the state

and D.C. departments of transportation, the Washington Metropolitan Area Transit Authority, and other member agencies.

- National Issues: Monitor national emerging MOITS activities for potential application in the region.

Oversight:	TPB MOITS Policy and Technical Task Forces
Cost Estimate:	\$348,900
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

H. ~~ACCESS TO JOBS PLANNING~~ HUMAN SERVICE TRANSPORTATION COORDINATION 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 2006, staff will update the regional public transit-human services job access plan developed in FY 2005.~~

This work element will replace "Access to Jobs Planning". SAFETEA-LU requires the TPB develop a Human Service Transportation Coordination Plan which must include priorities and projects for the following three programs: 1) Formula Program for Elderly Persons and Persons with Disabilities (Section 5310); 2) Job Access and Reverse Commute (JARC, Section 5316); and 3) New Freedom Program (Section 5317) beginning in FY 2007. Both Section 5316 and 5317 grants must be selected competitively. Furthermore, SAFETEA-LU states that "the plan and TIP shall consider the design and delivery of non-emergency transportation services".

For the remainder of FY 2006, staff will begin to develop a regional human services transportation coordination plan. Work activities include:

- o Establish a human service transportation coordination subcommittee with representatives from human service agencies, transportation agencies, private providers and people with disabilities. This committee would report to the TPB Access for All Advisory Committee.**
- o Develop an initial draft outline of a human service transportation coordination plan using priorities and goals for coordination established by the WMATA demand responsive study. An initial draft plan will be developed and refined in FY 2007 and the final plan is scheduled to be adopted by the TPB before July 2007.**
- o Identify priority projects for the three programs listed above.**

Oversight: **Technical Committee and TPB Access for All Advisory Committee**

Cost Estimate: ~~\$51,000~~ **\$101,000**

Products: ~~Update of the regional public transit-human services job access plan~~ **Initial Draft Outline of the Human Service Transportation Coordination Plan for the Washington Region**

Schedule: June 2006

I. PUBLIC PARTICIPATION

Background

~~TEA-21~~ **Federal planning regulations** require 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.

The TPB has a public involvement policy with eleven general requirements and criteria and eight specific activities, which was revised on October 20, 1999.

SAFETEA-LU requires the TPB to develop a Public Participation Plan and requires specifically that bicyclists, pedestrians and people with disabilities be provided opportunity to comment on the plan. SAFETEA-LU also identifies certain methods for public involvement. Improved information for the public was also highlighted during the Federal Certification review in September 2005.

FY 2006 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.

Input and comments from the public will be gathered, including bicyclists, pedestrians and those with disabilities, and identify how the input can be made useful to decision makers. To respond to SAFETEA-LU requirements an initial outline for a Public Participation Plan with input from the public will be developed. Staff will review how the TPB will ensure that public meetings are held at convenient and accessible locations and times. Finally, a publication thoroughly describing the project selection process will be developed.

All public involvement efforts will be coordinated with the public outreach activities for the 2006 CLRP updated 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.~~

Workshops and events will be developed and held to engage the public and community leaders on key regional transportation issues, These efforts will focus particularly on engaging community leaders who have not traditionally been involved in the regional transportation planning process. Consultant support for these activities will be utilized.

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

The TPB established the Access for All Advisory Committee in 2001. The Access for All (AFA) Advisory Committee advises the TPB on transportation issues, programs, policies, and services that are important to low-income communities, minority communities and people with disabilities. The mission of this committee is to identify concerns of these groups and to determine whether and how these issues might be addressed within the TPB process. Committee membership includes twenty-five engaged community leaders as well as ex-officio representation from the major transportation implementing agencies within the Metropolitan Washington Region.

The committee chair is currently Kathy Porter, TPB Member and Mayor of Takoma Park. Kathy Porter was appointed as the chair of the committee in March 2003, after the former AFA chair, Peter Shapiro, led the committee for three years. Since the inception of the committee in 2001, the AFA has become an active voice for people not typically a part of the transportation planning process. The AFA has developed two reports, in 2001 and 2003, to provide guidance to the region's transportation decision makers on ways to address the issues and concerns of persons that are typically not represented in the transportation planning process.

In FY 2006, staff will be responsible for organizing and staffing the advisory committee, conducting research on issues, and writing a 2005 report on priority projects, programs, services and issues.

Oversight:	Transportation Planning Board
Cost Estimate:	\$171,300 \$311,300
Products:	A proactive public involvement process that provides complete and user-friendly information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in developing plans and TIPs; a draft outline for

the TPB Public Participation Plan, and the monthly TPB News.

Access for All report on projects, programs, services and issues important to low-income, minority and disabled communities. December 2005

Schedule: On-going activity with forums and meetings linked to schedules for new TIP preparation and 2006 Update of the CLRP

L. TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING

Emergency preparedness is a critical element of overall metropolitan planning. SAFETEA-LU requires metropolitan transportation planning to look at ways to "increase the security of the transportation system for motorized and nonmotorized users".

Transportation is closely intertwined with every other aspect of homeland security and regional emergency preparedness. The Regional Emergency Coordination Plan (RECPSM) was developed by the Metropolitan Washington Council of Governments in 2002-2004, with TPB and TPB Management, Operations, and Intelligent Transportation Systems Policy and Technical Task Forces participation, and features both a transportation chapter and a Regional Emergency Evacuation Transportation Coordination (REETC) Annex. The RECPSM provides regional coordination strategies for emergencies our area may face. It involves local, regional, state and federal departments of transportation and transit agencies; and collaboration with emergency management, law enforcement, and federal agencies including the Department of Homeland Security and the Federal Emergency Management Agency (FEMA).

In catastrophic emergencies, the transportation sector is called upon to play a support role in a multi-functional response coordinated by emergency management authorities. One of fifteen "Regional Emergency Support Functions" (RESFs), transportation is designated as "RESF 1". The region's roads, transit, and other infrastructure in most cases will be vital to any response to an emergency. Transportation will have roles in providing emergency responder access to an incident scene. It will have roles in protective action responses for the public, which may include evacuation of persons in danger, but will more likely involve management of demand on transportation facilities, and encouragement of people to stay in place for their own safety and the safety of others.

This work task focuses specifically on regional planning for transportation's roles in declared emergencies and catastrophes. It is a coordinated effort of transportation, public safety, emergency management, and other functional area personnel. It must address law, regulations, and practices in both the transportation and Homeland Security/public safety spheres. This work task is, therefore, shared between the metropolitan transportation planning process and the Homeland Security planning process, and is jointly funded.

Major topics to be addressed include the following:

- **Transportation/Emergency Management Briefings and Liaison Activities: Provide frequent reports and briefings, and advise the Transportation Planning Board (TPB), the TPB MOITS Task Forces, and other transportation committees on regional emergency transportation activities. Undertake liaison activities between the transportation and public safety aspects and stakeholders.**
- **Transportation Emergency Planning and Programming: Support transportation sector participation in development of regional emergency plans and programs, including:**
 - **Emergency coordination and response planning through the emergency management and Homeland Security Urban Area Security Initiative (UASI) processes.**
 - **Communications and Technical Interoperability: Support planning for interoperability of emergency transportation information systems with the information systems of emergency management and other functional areas. Transportation. Support transportation participation in regional emergency communications coordination.**
 - **Public Outreach: Support transportation participation in regional emergency preparedness public outreach activities.**
 - **Training and Exercises: Support transportation participation in regional emergency preparedness training or exercise activities, or in the development of regional transportation emergency exercise or training opportunities.**
 - **Inter-Functional Planning: Support transportation sector involvement in regional inter-functional emergency preparedness committees as necessary.**

- o **Federal Requirements: Support regional transportation sector activities to address and conform to U.S. Department of Homeland Security (DHS) directives and other requirements.**
- o **Applications for and management of UASI and other federal Homeland Security funding.**
- o **Accreditation: Support regional transportation involvement in the Emergency Management Accreditation Program (EMAP).**
- o **Secretariat Activities: Provide secretariat or committee support activities for RESF 1 - Transportation within the Homeland Security Strategic Governance Structure.**

Oversight: COG Regional Emergency Support Function 1 - Transportation Committee

Cost Estimate: \$60,000

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

Schedule: Monthly

M. FREIGHT PLANNING

SAFETEA-LU stresses the importance of freight movement for the country. Truck, rail, and maritime goods movement considerations need to be included in our region's transportation planning and programs. Though trucks have long been accounted for in the TPB's transportation monitoring and forecasting, this work activity will respond to the need for enhanced regional freight planning with improved information compilation, outreach to stakeholders, and analysis.

Work activities will include:

- **Freight Movement and Facilities Information Compilation and Mapping: Basic data compilation on freight movement and freight facilities in the region from existing sources. This will create a baseline of information in**

Geographic Information System (GIS) format. Information in GIS format can be correlated to other transportation planning data. GIS-based maps will inform regional decision makers, support committee members, and staff.

- **Collaboration with Baltimore Metropolitan Freight Planning: Serving a metropolitan area with a major port city and a large industrial base, the Baltimore Metropolitan Council (BMC) has a longstanding robust freight planning process. The experience of freight planning at the BMC will be examined to identify lessons relevant for TPB planning, and there will be collaboration between the Baltimore and Washington freight planning processes.**
- **Outreach to Freight Movement Stakeholders: Conduct a series of structured interviews with representatives of the freight community, carriers and shippers, to gain their input on regional freight movement, safety and other issues and to gauge their interest in state and metropolitan planning and programming processes.**
- **Truck Safety: In 2003, a one-year Special Truck Safety Task Force was convened under the COG public safety planning program, and truck safety was a major focus of a COG conference held in November 2003. Those efforts yielded a number of findings and recommendations, which will be examined for follow-up actions from the regional transportation planning perspective.**
- **Planning for a Freight Workshop: Plan a workshop for stakeholders to be held in FY2007. Identify topics of interest to private sector trucking, shipping, and other freight stakeholders. Since these stakeholders are often economic competitors, such an event must be planned accordingly.**

Oversight: TPB Technical Committee

Cost Estimate: \$50,000

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

Schedule: Bimonthly

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 subsequently amended and issued, most recently, in the July 1, 2004 FEDERAL REGISTER; in addition, federal guidance has also been published at various times by the EPA, FHWA and FTA.

A work program to analyze the 2005 constrained long range plan and the FY 2006 -11 TIP for air quality conformity with respect to the 8-hour ozone standard 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 FY2005, with the final report, response to comments, and adoption in September 2005. Subsequent major activities in FY2006 will include development and execution of a work program for the conformity assessment of the 2006 CLRP and FY2007-12 TIP.

In addition, in December 2004 EPA designated the Washington area as nonattainment for PM_{2.5} (particulate matter 2.5 microns or less). ~~EPA is expected to issue further guidance this Spring on conformity with respect to these PM_{2.5} categories. Once EPA publishes this additional guidance and finalizes effective dates, the TPB will have~~ **On April 5, 2005 EPA amended its conformity rule; as of that date the TPB has** 12 months to demonstrate conformity of its plans and programs according these requirements, or otherwise face a conformity lapse. ~~While specific work activities cannot be finalized until EPA issues its remaining guidance, this work element is being planned to address such technical and consultation activities.~~ **Specific work activities are included under Task 2 below.**

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 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 2006 air quality conformity work program will include the following tasks.

1. Complete conformity analysis of the 2005 constrained long range plan and the FY 2006 -11 TIP using criteria to address the 8-hour ozone standard, 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. Assess the 2005 constrained long range plan and the FY 2006 -11 TIP with respect to PM2.5 conformity criteria, 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.

This includes the following specific subtasks:

- **Execute the new technical methods for the estimation of PM2.5 direct emissions and NOx precursor emissions, being developed under the Mobile Emissions Analysis work program, to assess air quality conformity of the 2005 CLRP and FY 2006 - 11 TIP.**
 - **Apply the technical procedures to the conformity milestone years (2002, 2010, 2020 and 2030); quality assure results.**
 - **Document methods and results in a technical report.**
 - **Present to TPB committees, for public comment, for TPB action, and for federal approval.**
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 2006 constrained long range plan and the FY 2007-12 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:	\$361,100 \$451,100
Products:	Final reports on Air Quality Conformity Determination of 2005 CLRP and FY 2006-11 TIP, with respect to the 8-hour ozone standard and PM2.5 standard; Draft report on Air Quality Conformity Assessment of 2006 CLRP and FY 2007-12 TIP
Schedule:	June 2006

B. MOBILE EMISSIONS ANALYSIS

In FY2005 state air quality implementation plan (SIP) activities were initiated to meet requirements for the 8-hour ozone standard. In FY2006 these work activities will continue, as EPA issues additional planning guidance, and will ultimately produce updated mobile source emissions budgets. This planning work will also include transportation emissions reduction measure (TERM) analyses towards meeting attainment requirements by the year 2010.

In FY2006 planning work to address new PM2.5 requirements (particulate matter 2.5 microns or less) will begin in earnest, once EPA releases its planning guidance (expected Spring 2005). FY2006 work activities to address research into development of refined data inputs to the Mobile6 model will also continue. The work program will include the following tasks:

1. Using MOBILE6, with consultant assistance as needed, (1) prepare mobile source emissions inventories for use in analysis of attainment of the 8-hour ozone standard and PM2.5 standard, **as identified in the subtasks below**, and (2) develop emissions factors for use in CLRP/TIP air quality conformity and SIP analyses, for 2010, 2020 and 2030 forecast years, and other years as necessary according to 'rate of progress' and other SIP requirements.

Implement the requirement to analyze PM2.5 mobile source emissions for immediate use in assessing air quality conformity to address direct PM2.5 and NOx precursor emissions on a yearly total emissions basis:

- **Develop a draft approach for the analysis,**
- **Coordinate with MWAQC committees and develop inputs to the Mobile6.2 model,**

- **Issue task orders to consultant to update software to accommodate new methods,**
 - **Test software to quality assure it and apply in production mode,**
 - **Summarize and document results,**
 - **Update emissions post-processor to accommodate the estimation of direct PM2.5 emissions and NOx precursors, reading revised Mobile6.2 outputs and producing emissions results for yearly totals,**
 - **Test software, quality assure results, and document new methods.**
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.
 4. Continue research activities to explore the possibilities of obtaining refined vehicle registration data for the vehicle categories used in Mobile6.
 5. Provide support to Commuter Connections staff in developing implementation plans for adopted, as well as future, TERMS adopted by the TPB.
 6. Address VMT tracking requirements as per Clean Air Act requirements.
 7. **Inventory the number and location of nonroad vehicles and engines (heavy duty retrofit candidates) used in transportation construction projects eligible for use of FHWA Congestion Mitigation and Air Quality (CMAQ) funds.**

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 to TPB in development / review of emissions factors required for mobile emissions inventories associated with air quality conformity and SIP planning.

Oversight:	Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees
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Cost Estimate: \$~~402,200~~ **\$572,200**

Products: **Technical procedures and software to estimate mobile sources emissions factors and emissions for PM2.5.** 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 2006

C. REGIONAL STUDIES

Regional Mobility and Accessibility Study

In FY2006, 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 using the Version 2.1D travel demand forecasting model and the Mobile 6 air quality emissions model.

Staff will also code, model, and analyze a regional HOV/HOT/Express Toll Lanes transportation scenario. The modeling results and analysis of the regional HOV/HOT/Express Toll Lanes scenario will be reviewed by the Joint Technical Working Group and presented to the TPB.

Once the travel demand and air quality impacts of ~~the~~ **all** alternatives scenarios 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 results of this evaluation, 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:	\$404,500 \$654,000
Products:	Improving Mobility and Accessibility Study Report
Schedule:	June 2006

D. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING PROCESSES

In FY2006, 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 update 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, 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 made in updating the Round 7 Cooperative Forecasts. Staff will also respond to questions and information requests on the Round 7 forecasts and the Cooperative Forecasting process.

Staff will work with the Cooperative Forecasting Subcommittee and the Planning Directors Technical Advisory Committee and members of the TPB Technical Committee to define additional smaller area land activity Transportation Analysis Zones (TAZs) for Regional Activity Centers and Clusters. Also, staff will work with these committees and local staff to subdivide very large TAZs in outer suburban jurisdictions into smaller TAZs as appropriate.

Staff will also work with the Planning Directors Technical Advisory Committee, the Metropolitan Development Policy Committee and the TPB to update and refine the Regional Activity Centers and Clusters based on the new Round 7.0 Cooperative Forecasts of population, household, and employment growth. Staff

will produce data tables and GIS maps for the updated Regional Activity Centers and Clusters.

Staff will also acquire and process small area TAZ-level employment data for 2005 that will provide updated TAZ-level area base year employment estimates to be used in future Cooperative Forecasts updates of employment growth.

Staff will also review data and assumptions concerning the projected growth of future “in-commuting” at external station TAZs in relation to the Round 7 Cooperative Forecasts of population, household and employment growth to determine if these assumptions are in need of updating or refinement. Staff will coordinate this review of in-commuting data and assumptions with Baltimore Metropolitan Council (BMC), Fredericksburg Area Metropolitan Planning Organization (FAMPO) and state DOT staff.

Oversight: TPB Technical Committee, Planning Directors
Technical Advisory Committee.

Estimated Cost: ~~\$355,400~~ **\$505,400**

Products: Update and maintenance of Cooperative Forecasting Land Activity Data Files **and documentation**; ~~Documentation of key cooperative forecasting land-use and transportation assumptions, Development of a new TAZ area system and review of “in-commuting” assumptions at external TAZ stations.~~ **Update and refinement of TAZ area system, Regional Activity Centers and Clusters, and in-commuting assumptions; new small area employment data**

Schedule: May 2006

III. DEVELOPMENT OF NETWORKS AND MODELS

A. NETWORK DEVELOPMENT

During FY2005, 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, 2010, 2015, 2025, and 2030.

FY2006 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 FY2006 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 FY2007-2012 TIP and Plan Conformity networks will be developed for the following analysis years: **2009 (now required for PM 2.5 air quality analysis)**, 2010, 2020, and 2030, and other years to be determined by the requirements of upcoming federal guidance. Tasks involved are as follows:

- receive and organize project inputs to the FY2007-2012 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:	\$627,500 \$677,500
Products:	Series of updated transportation networks by mode, including technical training and documentation
Schedule:	June 2006

B. GIS TECHNICAL SUPPORT

In FY2006, 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 develop 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 develop a GIS software application to enable transportation planners and others to more easily identify and code transit walk shed areas for potential new transit station locations that are being studied and analyzed using the COG/TPB Version 2.1D travel demand forecasting model.

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 support 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.

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: ~~\$444,400~~ **\$479,400**

Products: Updated GIS software, databases, User documentation, Training materials, Report on FY 2006 GIS activities, **New GIS application for identifying transit station area walk sheds**

Schedule: June 2006

C. MODELS DEVELOPMENT

The Transportation Research Board (TRB) Committee reviewing the TPB travel demand modeling process completed a report during FY 2004 which made recommendations for improvements in several areas. This document has set the stage for a multi-year program to improve the TPB travel demand models.

In response to these recommendations, TPB staff continued to implement several changes during FY 2005. These included completing a sampling plan for collection of truck and commercial vehicle trip data, beginning development of a set of nested logit mode choice models, and undertaking an effort to gain familiarity with the SUMMIT software package employed by FTA in reviewing transit projects. Effort was also made to continue development of a formal airport access demand model, and to begin developing a framework for tour-based and/or activity-based models in the future.

The FY2006 effort in Models Development will focus on the following tasks:

- Continuing a longer term upgrade of transit modeling by ~~completing~~ **expediting** 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~~ **Expediting** the development of a new commercial vehicle forecasting model, and updating the truck forecasting models;
- Continuing 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;
- **Obtaining consultant assistance to provide technical support on a task order basis for an ongoing assessment of the performance of the TPB travel demand models;**

- **Procuring microsimulation software to aid in the development of more detailed simulation of travel patterns;**
- Continuing the development of a more formal airport access demand model, incorporating mode choice; and
- Continuing participation on a national MPO panel established to recommend practices in travel demand modeling.

Staff will continue to review best practice in travel demand modeling through participation in the 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: ~~\$649,000~~ **\$999,000**

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

Schedule: June 2006

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.

Staff will incorporate Mobile6.2 PM2.5 emissions factor interface software and mobile source emissions postprocessor (developed under the above Mobile Emissions Analysis project) into DTP-supported / maintained technical methods.

Staff will flowchart and document the processes as elements of the department's technical methods, modify as needed in the future in response to changing requirements, and maintain through time.

Oversight: TPB Technical Committee

Cost Estimate: ~~\$122,200~~ **\$172,200**

Products: Operational travel forecasting model set (current model set plus **PM2.5 postprocessor, and** new software selected/installed in FY 2006).
Operational emissions factor model, **and postprocessor software interface, including PM2.5 capability.**
Operational data storage and retrieval systems.
Operational data transfer systems to serve inside and outside users.

Schedule: June, 2006

IV. TRAVEL MONITORING

A. CORDON COUNTS

During FY2005, a report was prepared 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 FY2005, data collection was undertaken in the Spring for the regional commercial vehicle / truck traffic counts. 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 summer of FY2006, staff will complete data collection for the regional classification counts of commercial vehicles, trucks, and buses. The task includes processing and checking of all data collected in spring and summer of 2005, and the preparation of a technical memorandum documenting the methodology. **This task has required more resources to complete that previously anticipated.**

In spring of 2006, for the Central Employment Area Cordon Count, staff will collect all traffic data and will coordinate transit data collection among various transit providers in the region. Data collection will take place during the A.M. peak period (5 A.M. to 10 A.M.) inbound and the P.M. peak period (3 P.M. to 8 P.M.) outbound. Data collected will include vehicle volumes by time of day, vehicle classification and auto occupancy, and transit passenger volumes. Data will be edited, checked for reasonableness, and keyed for processing. The end product for this task will be data files ready to process in FY2007.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$367,500 \$417,500
Products:	Classification count file and technical memorandum; Data files from the Central Employment Area Cordon Count
Schedule:	Classification count file and technical memorandum –September 2005; Cordon Count data files – June 2006

B. CONGESTION MONITORING AND ANALYSIS

Current FY 2005 data collection efforts include an aerial survey by consultant (Spring 2005) of the limited access highway system in the region during the AM and PM peak periods. In FY 2006, the consultant will analyze the data and report on the performance of the freeway system during Spring 2005. The report will include a review of the system changes over time, since a similar survey has been conducted every three years since 1993.

During FY 2006 (Spring 2006), an aerial survey of the limited access highway system will be conducted during the mid-day and weekend hours. The first such survey was conducted in 1994, repeated in 1997, and 2001. Analysis of data and a report on the performance of the freeway system during off-peak and weekend hours will be completed in FY 2007.

Congestion monitoring of arterial highways in the region is performed using travel time surveys. In FY 2006, the miles of arterial highways monitored will be increased from 393 miles to approximately 600 miles in consultation with the Travel Forecasting Subcommittee, and the monitoring program will change from a three year cycle to a five year cycle. Data will be collected on a fifth of the total system under the program and a report on the system performance of the arterial routes studied in FY 2006 will be completed.

Staff will continue to investigate new technologies and data collection methods in congestion monitoring and report on promising technologies. A few of the bench marks that will be used in evaluating new technologies are: ease of use of the technology, improvement in productivity, and quality of the data collected. **Following the identification of the most promising approach, staff will conduct a pilot test of new travel time monitoring technologies and data collection methods such as utilizing cell phone signals or volunteer drivers with GPS monitors.**

Total Cost:	\$ 401,100 \$501,100
Oversight:	Travel Forecasting Subcommittee
Products:	Freeway System Performance Report Arterial Travel Time Report Data files of traffic densities during off-peak and weekend (to be analyzed in FY 2007) Technical report on results of pilot test
Schedule:	June 2006.

C. TRAVEL SURVEYS AND ANALYSIS

1. Household Travel Survey

In FY 2006, 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 as required.

Staff will ~~continue to plan and seek funding for~~ **complete the design of** a large-sample methodologically enhanced activity-based regional household travel survey. Methodological enhancements under consideration for this survey 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.

~~The pre-test and data collection for the methodologically enhanced activity-based regional household survey will not begin until additional funding can be identified for the conduct this survey.~~ **A professional survey firm will be contracted to develop all materials required for this survey and to conduct a pre-test of the proposed methodologically enhancements. Survey design elements and interviewing materials will be refined based upon the results of the survey pre-test. Data collection for the full survey will begin as time and funding permit.** It is currently estimated that between \$1.8 and \$2.0 million in additional funding will be needed to collect the required methodologically enhanced travel survey data from approximately 10,000 households in the TPB modeled region.

Estimated Cost:	\$50,700 \$835,700
Oversight:	Travel Forecasting Subcommittee
Products:	Plans for Design and pre-test a large sample methodologically enhanced activity-based regional household travel survey
Schedule:	June 2006

D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

Efficient access to a comprehensive data set containing current and historic data on the characteristics and performance of the region's transportation system is vitally important

for transportation planning, air quality analysis, models development, congestion management and project evaluations.

In FY 2006 staff will continue and expand formal arrangements with local, state, WMATA, and other regional agencies to transfer data to and from the Regional Transportation Data Clearinghouse. Staff will also update Clearinghouse databases with FY 2004-FY 2005 highway and transit performance data, as they become available. This updated data will include AADT traffic volume estimates, hourly directional traffic volume and classification counts as well as transit ridership data received from WMATA, PRTC, VRE, MTA and local transit agencies including Ride-On, The Bus, ART, DASH and the Fairfax Connector systems. Additionally, staff will add updated Cooperative Forecasting 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, as appropriate.

Once the Regional Clearinghouse database has been updated with FY04-05 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.

In FY 2006 staff will also work with State DOTs and local agency staff to ~~examine the feasibility of developing a continuing sample traffic counting locations and volume estimation methodology for the metropolitan Washington region similar to the procedures used by the State DOTs to produce statewide Highway Performance Monitoring System (HPMS) traffic volume statistics.~~ **to design and develop an enhanced Highway Performance Monitoring System (HPMS) sample of traffic counting locations in the TPB modeled region and plan supplemental traffic count data collection for this enhanced metropolitan area-based sample. Develop methodology to improve annual estimates of regional vehicle miles of travel (VMT) and traffic volumes on major segment of the regional highway network based on the enhanced HPMS sample for the TPB modeled region.**

Estimated Cost:	\$122,500 \$257,500
Oversight:	Travel Forecasting Subcommittee
Products:	Updated Clearinghouse Databases and Documentation
Schedule:	June 2006

V. TECHNICAL ASSISTANCE

B. MARYLAND

Project Planning Support

There are a number of project planning activities currently underway under the technical assistance program in Maryland. These range from multimodal analyses in major corridors, e.g., the Capital Beltway and I-270, to the development of travel demand forecasts for individual facilities. This project provides funding to support these activities, to address both ongoing corridor / subarea studies as well as the initiation of new planning studies. Specific project authorizations will occur throughout the fiscal year, as priorities dictate.

Cost Estimate: \$317,300

TOTAL V.B COST ESTIMATE: ~~\$398,200~~ **\$715,500**

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

1. 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 2005. 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, 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.

Cost Estimate: ~~\$14,000~~ **\$14,800**

Schedule: on-going activity

Northern Virginia HOV Facilities Monitoring and Data Collection

VDOT desires an abbreviated monitoring program of the system of limited access high-occupancy vehicle (HOV) facilities in Northern Virginia during the fall of fiscal year 2006. The HOV corridors to be monitored are:

- I-95 from Triangle, Prince William County to its interchange with the Capital Beltway at Springfield, Fairfax County;
- I-395 from the Capital Beltway to (and including) the 14th Street Bridge in the District of Columbia;
- I-66 from Gainesville, Prince William County to the District of Columbia end of the T. Roosevelt Bridge; and
- Virginia Route 267 (Dulles Toll Road) from the Fairfax County/Loudoun County line to I-66 (including Dulles Connector and Dulles Access Road).

Monitoring will consist of the following data collection projects:

- peak direction occupancy and classification counts (from 5 AM to 10 AM inbound and 3 PM to 8PM outbound) at a set of stations along these facilities. These stations will include the major count locations as specified by VDOT, and will be less than the usual number of locations.

- Off peak direction traffic volume and classification counts during the peak period (same as above) at selected locations to be performed in the spring of 2005 in Northern Virginia.
- Staff will also research, purchase, test, and perform travel time runs using GPS technology in Northern Virginia.

Data will be transmitted to VDOT after field data collection work, editing, and reasonableness checking have been completed.

Cost Estimate: \$260,000

Products: Data files transmitted to VDOT

Schedule: Fall counts completed by Nov. 30, 2005
 Spring counts completed by June 30, 2006

I-66 Feasibility Study Supplemental Data Collection

Should the Virginia Commonwealth Transportation Board decide to pursue a location study of feasible improvements to westbound I-66 between the Rosslyn Tunnel and the Dulles Airport Access Highway, additional traffic data may be required. This work element will fund COG staff collecting data needed for such a study as a complement to additional data collection efforts by VDOT.

Cost Estimate: \$20,000

Schedule: On-going activity

Enhanced Commuter Corridor Count Program

This work element will dovetail with the scheduled COG count program (either the metro cordon count or the VDOT HOV monitoring program) to obtain additional data on modal use in either the I-66 or I-95 / 395 corridors. This additional data will provide statistically reliable information on modal use in the selected corridor that will be beneficial to planners and decision makers. While technical assistance funding will be used for the COG data collection effort, the success of this work element is predicated on transit providers providing ridership data, free of charge, to be integrated into the overall data analysis. This ridership data must be collected in the same time period as the COG traffic count data collection effort in order to accurately depict modal shares.

Cost Estimate: \$2,000 FY 2006
 \$65,000 carryover from 2005

Schedule: Data collection to occur in FY 2006

High Occupancy / Toll (HOT) Lane Analysis for the I-95/395 Corridor

As requested by the VDOT advisory panel evaluating HOT lane proposals for the I-95/395 corridor, this analysis will examine the potential impacts of two HOT lane proposals using the TPB modeling procedures and regional transportation networks for the 2005 CLRP update process. The two proposals will be included in the 2010 and 2030 transportation networks developed for the 2005 CLRP, and the TPB travel demand model will be utilized to forecast traffic volumes, speeds and mode shares for the I-95 corridor. The results of this analysis will be a technical report provided to the advisory panel in September 2005.

Cost Estimate: ~~\$95,000~~ **\$85,000**

Schedule: Analysis results provided September 2005

TOTAL V.C COST ESTIMATE: ~~\$466,000~~ **\$456,800**

D. WMATA

Program Development

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

Cost Estimate: \$10,000

Schedule: on-going activity

Miscellaneous Services

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

Cost Estimate: ~~\$21,800~~ **\$24,000**

Schedule: on-going activity

TOTAL V.D COST ESTIMATE: ~~\$181,800~~ **\$184,000**