

UNIFIED PLANNING WORK PROGRAM

FY 2018

Unified Planning Work Program (UPWP) for Transportation Planning for the
Washington Metropolitan Region for FY 2018

March 2017 - Draft 3/3/17

DRAFT



UNIFIED PLANNING WORK PROGRAM (UPWP): FY 2018

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ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 23 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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I. INTRODUCTION

Purpose

The FY 2018 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, 2017 through June 30, 2018. The UPWP provides a mechanism for the coordination of transportation planning activities conducted by the National Capital Region Transportation Planning Board (TPB), 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). The Metropolitan Washington Council of Governments (COG) serves as the administrative agent for the TPB. The TPB is staffed by COG's Department of Transportation Planning. COG provides the administrative functions necessary to meet federal fiducial and other regulatory requirements required in order to receive FHWA and FTA funds.

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

Planning Requirements

The planning activities outlined in this work program respond to a variety of regulatory requirements. On May 27, 2016, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) jointly published a final rule on **Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning**. The planning rule updates federal surface transportation regulations with changes adopted in the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act.

MAP-21 introduced and the FAST Act continues the implementation of performance management requirements through which States and metropolitan planning organizations (MPOs) will "transition to a performance-driven, outcome-based program that provides for a greater level of transparency and accountability, improved project decision-making, and more efficient investment of Federal transportation funds." In addition, MAP-21 and the FAST Act included a number of modest modifications to the planning process, policy board composition, participants in the process, and contents of the metropolitan long-range transportation plan. This work program has been developed to work towards compliance with the new requirements regarding metropolitan planning.

On November 16, 2016, the TPB approved the 2016 Amendment to the Financially Constrained Long Range Transportation Plan (CLRP) for the National Capital Region and the FY 2017-2022 Transportation Improvement Program (TIP). In February 2017, FHWA and FTA found that the 2016 CLRP and FY 2017-2022 TIP conform to the region's State Implementation Plans.

On November 16, 2016, the TPB, the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), and the Virginia Department of Transportation (VDOT) self-certified that the metropolitan transportation planning process is addressing the major issues in the metropolitan planning area and is being carried out in accordance with all federal metropolitan planning applicable requirements. The Self-Certification Statement describes how the federal metropolitan transportation planning process is being conducted by the TPB in accordance with all the applicable requirements, as described under 23 CFR 450.334. The Self-Certification Statement is signed by three state DOTs and the TPB.

The Self Certification Statement can be found here:

http://old.mwcog.org/clrp/resources/2016/SelfCertification_2016.pdf

In June 2015, the FHWA and FTA jointly certified that the TPB's planning process complies with metropolitan planning regulations and issued a certification report. On October 28 and 29, 2014, FHWA and FTA conducted a certification review of the metropolitan planning process in the Washington, DC-VA-MD Transportation Management Area (TMA) which is the responsibility of the TPB and the Fredericksburg Metropolitan Area Metropolitan Planning Organization (FAMPO). While the recommendations from the certification report were addressed in FY 2016, improvements and enhancements identified in the report continue to be integrated into the TPB's ongoing planning process.

The TPB will continue its rich tradition of coordination across MPO boundaries with its adjacent MPOs and with those MPOs it shares DOTs with. According to the newly enacted Metropolitan Planning Organization Coordination and Planning Area Reform Rule, this type of coordination is now codified, and the TPB will not only continue to coordinate, but will look to enhance all coordination opportunities.

THE CLEAN AIR ACT

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

TITLE VI AND ENVIRONMENTAL JUSTICE: ENSURING NON-DISCRIMINATION

It has been the long-standing policy of both COG and TPB to actively ensure nondiscrimination under Title VI of the Civil Rights Act of 1964. Title VI states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Executive Order 12898, issued February 11, 1994, requires that the TPB identify and address, as appropriate, disproportionately high or adverse effects of its programs, policies, and activities on minority populations and low-income populations. While COG, as the TPB's

administrative agent, has the primary responsibility for meeting Title VI requirements, ensuring non-discrimination is an underlying tenet that permeates this work program. The TPB has a two-pronged approach to ensuring nondiscrimination: 1) analysis of the long-range plan for disproportionately adverse impacts, and 2) engaging traditionally transportation-disadvantaged populations in the planning process. The specific tasks related to Title VI analysis is under Activity 1: Long Range Planning. Engaging transportation disadvantaged-populations, primarily through the Access for All Advisory Committee, is found in Activity 8: Public Participation. COG's Title VI Plan (including the Language Assistance Plan), the Title VI notice to the public, and complaint procedures can be found at www.mwcog.org/nondiscrimination.

On February 22, 2016, USDOT issued a determination that the COG Title VI Program satisfies the Title VI program requirements. The next triennial Title VI program update is due to FTA on June 1, 2018. The Maryland Department of Transportation (MDOT) also approved the Title VI Plan on January 5, 2017.

Federal Requirements for Performance-Based Planning and Programming

MAP-21 and FAST call for metropolitan planning organizations, public transportation providers and states **to establish and use a performance-based approach to transportation decision making**. The USDOT has established performance measures related to seven goal areas for the federal-aid highway system. The goal areas include: safety, infrastructure, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. Additional goal areas for public transportation address transit safety and transit asset management.

FHWA and FTA have largely completed the issuance of final rulemaking for the performance measures. TPB will be working with the states and public transportation providers over the next year to collect the data, make forecasts for performance, and establish performance targets in support of those measures; and the TPB will subsequently have up to a 180 days to establish performance targets coordinated with those of the states and public transportation providers. After these targets are set, the metropolitan transportation plan and the transportation improvement program (TIP) are required to include a description of the performance measures and targets used in assessing the performance of the transportation system. The metropolitan transportation plan will also have to include a system performance report evaluating the condition and performance of the transportation system with respect to the established targets. The TIP is also required to include a description of the anticipated effect of the TIP toward achieving the performance targets set in the plan.

Regional Planning Goals

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

- The Washington metropolitan region's transportation system will provide reasonable access at reasonable cost to everyone in the region.

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

Known as the TPB Vision, these goals are broad in scope, and also encompass a variety of strategies and objectives. Together, these goals, strategies, and objectives provide a framework for setting out core principles for regional transportation planning. MAP-21 requires the planning process to consider projects and strategies that address eight planning factors. These eight planning factors are encompassed by the TPB Vision's policy goals and are considered when developing the CLRP. Each planning factor is included in one or more of the TPB Vision goals, objectives and strategies, except for security, which is implicitly addressed in the TPB Vision.

On January 15, 2014, after a three-year process, the TPB approved the Regional Transportation Priorities Plan (RTPP) for the National Capital Region. The Priorities Plan developed a comprehensive set of regional transportation goals and challenges, and then identified three regional priorities that local, state, and regional agencies should consider when developing projects. In FY 2017, the Priorities Plan will influence policy actions, funding strategies and potential projects considered for potential incorporation into the CLRP.

Responsibilities for Transportation Planning

The National Capital Region Transportation Planning Board (TPB) is the organization responsible for conducting the continuing, cooperative, comprehensive (3-C) transportation planning process for the Metropolitan Washington Region. 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.

The TPB is composed of representatives from the 21 cities and counties, including the District of Columbia, that are members of the Metropolitan Washington Council of Governments (COG), 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 2 lists the organizations represented on the TPB and its Technical Committees. Figure 3 shows the geographical location of each of the participating local jurisdictions. The TPB also serves as the transportation policy committee of COG. This relationship serves to ensure that transportation planning is integrated with comprehensive metropolitan planning and development, and is responsive to the needs of the local governments in the area.

Policy coordination of regional highway, transit, bicycle, pedestrian and intermodal planning is the responsibility of the TPB. This coordinated planning is supported by the three state departments of transportation (DOTs), FTA, FHWA, and the member governments of COG. The TPB coordinates, reviews, and approves work programs for all proposed federally assisted technical studies as part of the UPWP. The relationship among land use, environmental and transportation planning for the area is established through the continuing coordinated land-use, environmental and transportation planning work programs of COG and TPB. Policy coordination of land use and transportation planning is the responsibility of COG, which formed the Region Forward Coalition in 2010 to foster collaboration in these areas, 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 are forwarded to the governors and mayor for inclusion in the State Implementation Plans (SIPs) they submit to EPA.

In the Washington Metropolitan region, the roles and responsibilities involving the TPB, the three state DOTs, the local government transportation agencies, WMATA, and the local government public transportation operators for cooperatively carrying out regional transportation planning and programming have been established over several years. As required under the final planning regulations, the TPB, the state DOTs and the public transportation operators have documented their transportation planning roles and responsibilities in the Washington Metropolitan Region in a Memorandum of Understanding (MOU) that was executed by all parties on January 16, 2008. The 2008 MOU will be reviewed in FY2017 and changes will be identified for updating the MOU following the promulgation of FAST planning regulations. The MOU is included in the Appendices and the responsibilities for the primary planning and programming activities are indicated in Figure 4.

With regards to coordination with other MPOs near the TPB's planning area, there are two agreements in place that lay out responsibilities for planning, programming and air quality conformity analysis. Both of these agreements can be found in the Appendices. In Virginia, the TPB has an agreement with the Fredericksburg Area MPO (FAMPO) from 2004 in which FAMPO assumes responsibility for meeting the transportation management area (TMA) planning and programming requirements within the Washington, DC-VA-MD Urbanized Area portion of Stafford County and producing the required planning documents for the TPB's current planning cycle. This agreement was reviewed in 2012 by both FAMPO and TPB staff, and it was mutually agreed that no changes

were necessary. In Maryland, the TPB formalized an agreement between the TPB, the Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO) and Calvert County, MD regarding the conformity analysis of transportation plans, programs, and projects in Calvert County. Calvert County is in the Washington, DC-MD-VA 8-Hour Ozone Nonattainment area, and is also a member of the new southern Maryland MPO. The agreement between the three parties was signed in January 2016.

FY 2018 Regional Planning Priorities

In March 2015, the USDOT issued **planning emphasis areas** for MPOs to consider in Unified Planning Work Programs. The three areas are 1) MAP-21 implementation: Transition to performance-based planning and programming; 2) Regional coordination of transportation planning beyond traditional boundaries; and 3) Ladders of opportunity. This section provides a summary of how the work activities in this UPWP addresses these three priority areas.

TRANSITION TO PERFORMANCE-BASED PROGRAMMING AND PLANNING

An overview of the transition to performance-based programming and planning was provided earlier in this Introduction. This transition is an articulated priority of the TPB as demonstrated in Activity 2 “Performance-Based Planning and Programming” in this UPWP. Efforts continue to address establishing performance measures and targets in coordination with the three state DOTs, WMATA and the local government public transportation operators in accordance with the federal planning regulations and performance management requirements for MPOs.

Focusing on the TPB's desire to improve the performance outcomes of the CLRP, an unconstrained long range plan (LRP) was developed during FY 2017. The TPB will be working on a set of regionally significant multi-modal priorities in FY2018 to identify a subset of currently unfunded regionally significant projects/programs/policies that would improve the performance of the region's transportation system. This work will be designed to be integrated into the next quadrennial update of the TPB's long-range plan in 2018.

REGIONAL COORDINATION BEYOND TRADITIONAL BOUNDARIES

As a multi-state MPO, the TPB fully embraces the need for regional cooperation and coordination across state and agency boundaries. Each work activity in this UPWP reflects regional coordination between jurisdictions and agencies in D.C., Virginia and Maryland, notably in the development of performance measures and targets, the unfunded regional priority projects, MATOC, congestion management, safety, public transportation, and freight. As stated earlier, the TPB will review the 2008 planning agreement with the State DOT's and WMATA after FAST planning regulations are issued. The TPB coordinates with MPOs near its planning area, such as with FAMPO, the Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO) and Baltimore Regional Transportation Board (BRTB). With regards to air quality conformity analysis, transportation projects and land use forecasts from these other MPOs are reflected in the technical analysis. Formal agreements on the coordination and consultation processes for transportation planning exist with FAMPO and C-SMMPO, as described above under “Responsibilities for Transportation Planning.”

The Transportation-Land Use Connections (TLC) program continues to improve the coordination between land use and transportation planning in the region. The Public Transportation Subcommittee plays a key role in fostering cooperation and coordination among the many public transit providers in the region. COG has been designated by the Governor of Maryland, the Governor of Virginia and the Mayor of the District of Columbia to coordinate with the State DOTs in the development of an agency to oversee Metrorail safety, as required under MAP-21.

LADDERS OF OPPORTUNITY: ACCESS TO ESSENTIAL SERVICES

The TPB has identified connectivity gaps in accessing essential services for older adults, people with disabilities and those with low-incomes in its Coordinated Human Service Transportation Plan, adopted by the TPB in November 2014. These unmet transportation needs are used to develop priorities for FTA's Enhanced Mobility of Seniors and Individuals with Disabilities grant program. COG serves as the designated recipient for this program in the Washington DC-VA-MD Urbanized Area and the TPB solicits and selects the projects; these projects provide key access to essential services such as health care, education, employment and recreation.

In FY2016, an expanded analysis of the Constrained Long Range Transportation Plan (CLRP) identified potentially vulnerable populations and examined access to employment, hospitals and educational institutions by these populations. The TPB's efforts to develop a list of unfunded regional priority projects will include the consideration of infrastructure needs that improve connectivity to essential services for traditionally-disadvantaged populations. The TPB's Bicycle and Pedestrian plan identifies improvements and policies to encourage more walking and biking. The Access for All Advisory Committee provides input to the TPB on projects, programs and services that are important to low-income individuals, minority communities, and persons with disabilities.

Federal Metropolitan Planning Provisions

The **Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning** Rule was issued on May 27, 2016. The planning rule updates federal surface transportation regulations with changes adopted in the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act. For Metropolitan Planning Organizations (MPOs), such as the TPB, the most significant change is the performance-based planning and programming requirements which must be adopted by May 27, 2018 and included in all subsequent TIPs and long-range plans. This UPWP will provide for an ongoing review of the metropolitan planning provisions and USDOT guidance with a consideration of what additional work activities may be called for by the new Administration. The TPB must respond to any guidance on how MPOs should implement the provisions. As new USDOT planning regulations or guidance are released, the UPWP will integrate such new work activities. The TPB will work with the state DOTs, public transit providers and other stakeholders to identify any specific changes or amendments that will be necessary to address them. Figure 1 below provides an overview of the new federal changes to metropolitan planning provisions that are being integrated into the UPWP, organized by work activity; note that this is not an exhaustive list of all of the changes called for in the new planning rule or recent USDOT guidance.

Figure 1: Federal Provisions for Consideration in the UPWP by Work Activity

UPWP Work Activity	Provisions for Consideration in the UPWPs
Long-Range Planning (Activity 1)	<ul style="list-style-type: none"> • The TIP and Plan will need to identify and consider “intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities, and commuter vanpool providers”; • A ninth planning factor was added: system resiliency and reliability and reduce or mitigate storm water impacts on surface transportation; • Capital investments in the Plan should include strategies to reduce vulnerability due to natural disasters; and • In addition to other consultation, MPOs are encouraged to consult with State agencies that plan for tourism and natural disaster risk reduction.
Performance-Based Planning and Programming (Activity 2)	<ul style="list-style-type: none"> • The definition of travel demand reduction was expanded to include intercity bus operators and employer-based commuting programs; and
Planning Programs (Activity 4)	<ul style="list-style-type: none"> • The Congestion Management Process (CMP) requirement was retained, but a Congestion Management Plan is optional; and • If the Congestion Management Plan is continued, it shall include projects and strategies to reduce congestion and improve connections between low-income households and jobs.
Public Participation (Activity 8)	<ul style="list-style-type: none"> • Interested parties also include public ports, intercity bus operators, and commuter vanpool providers.
Transportation and Land Use Connection Programs (Activity 9)	<ul style="list-style-type: none"> • The Transportation Alternatives Program (TAP) was repealed but virtually the same program continues under the Surface Transportation Block Grant Program (STBGB); and • MPO involvement with the selection of STBGB projects as a portion of the State allocation was retained and for some of this funding, there are additional eligible activities.

Figure 2: Organizations Represented on the TPB and/or Its Technical Committees

VIRGINIA

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

MARYLAND

Frederick County	City of Greenbelt
Montgomery County	City of Rockville
Prince George's County	City of Takoma Park
City of Bowie	Maryland-National Capital Park and Planning Commission
City of College Park	Maryland Department of Transportation
City of Frederick	Maryland General Assembly
City of Gaithersburg	

DISTRICT OF COLUMBIA

DC Council
DC Department of Transportation
DC Office of Planning

REGIONAL, FEDERAL, AND PRIVATE SECTOR

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

Figure 3: Membership of the National Capital Region Transportation Planning Board

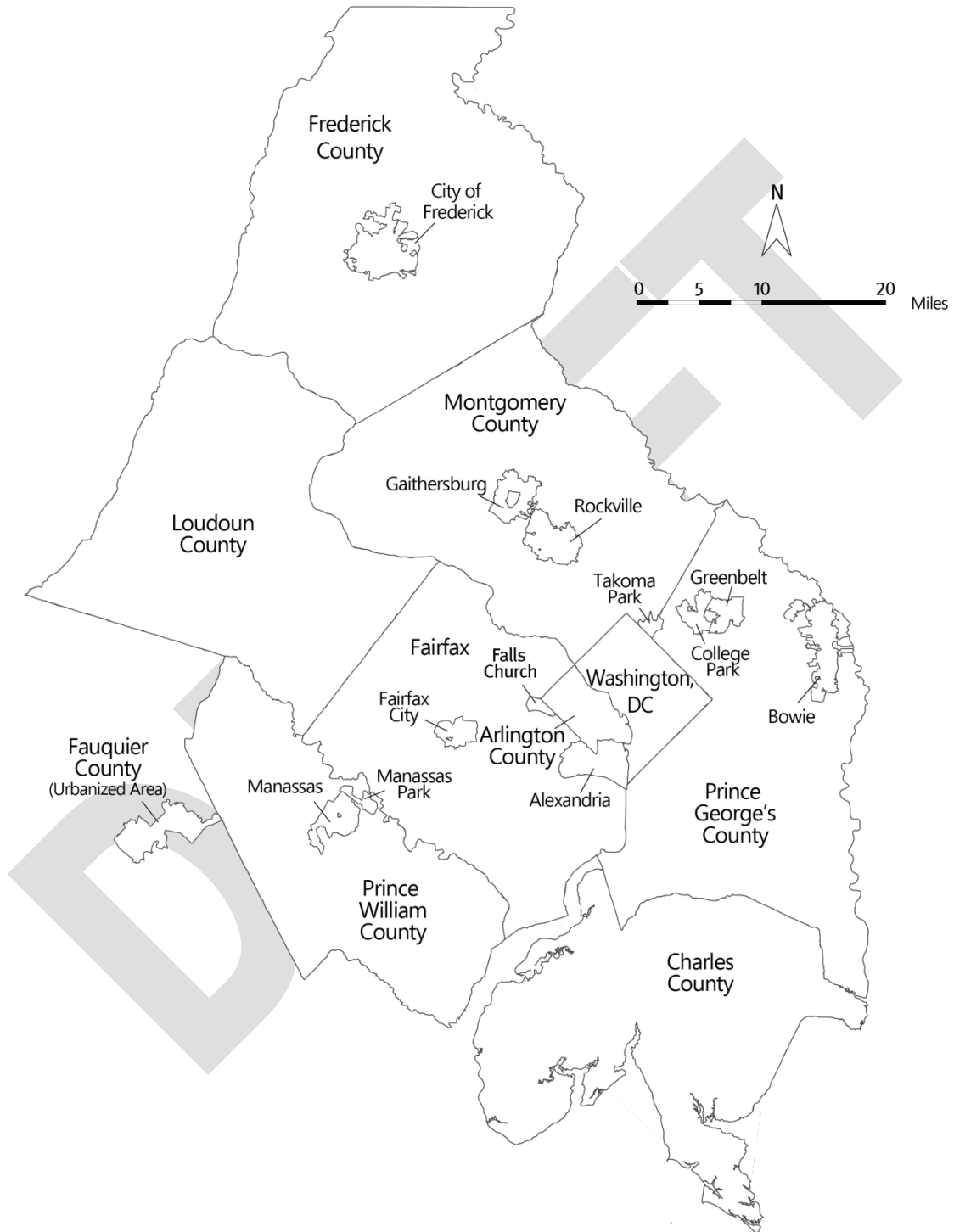


Figure 4: Transportation Planning and Programming Responsibilities

RESPONSIBILITY	AGENCIES
UPWP Development	TPB, DOTs, WMATA, Local Governments
Planning Certification	TPB, DOTs
Performance-Based Planning	TPB, DOTs, WMATA, Public Transportation Providers
CLRP Development	
Transportation/Land-Use Planning	TPB, MDPC, Local Governments
Plan Inputs/Update	DOTs, WMATA, Local Governments, NVTA, PRTC, FAMPO
Project Selection	TPB, DOTs, WMATA, Local Governments
Air Quality Conformity	TPB, FAMPO
Financial Plan	TPB, DOTs, WMATA, Local Governments
Congestion Management Process	TPB, DOTs, Local Governments, FAMPO
Safety Element	TPB, DOTs, Local Governments
Participation Plan	TPB
Freight Plan	TPB, DOTs, Local Governments
TIP Development	
TIP Inputs	DOTs, WMATA, Local Governments, NVTA, PRTC
Project Selection	TPB, DOTs, WMATA
Air Quality Conformity	TPB, FAMPO
Financial Plan	TPB, DOTs, WMATA, Local Governments, NVTA, PRTC
Human Service Transportation Coordination Planning	TPB, WMATA, Human Service Agencies
Private Enterprise Participation	TPB, WMATA, Local Governments, NVTC, PRTC
Public Involvement Plan	TPB
Projects Federal Funding	TPB, DOTs, WMATA
Air Quality 2010 Attainment Plan	MWAQC, TPB, DOTs
CO2 Mobile Emissions Reduction	WMATA, State Air Quality Agencies
Climate Change Adaptation	TPB, DOTs, WMATA, Local Governments
Corridor Studies	DOTs, WMATA, TPB
Travel Demand Forecasting	TPB
Travel Monitoring	TPB, DOTs, WMATA, Local Governments

Figure 5: Transportation Planning Studies within the Washington Metropolitan Area 2017

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
Regional			
Amendments to the Constrained Long-Range Plan	TPB, DOTs, WMATA, Local Governments	2016	CLRP
Station Area Plans (multiple stations)	WMATA	On-going	Plans
Station Access Studies (multiple stations)	WMATA	On-going	Plans
Station Capacity Studies	WMATA	On-going	Plans
Bus Service Evaluation Studies	WMATA	On-going	Studies
Red Line Core Capacity Grant Study	WMATA	On-Going	Plan
Short-Term Ridership Forecast	WMATA	2017	Model
Bus Lane Enforcement	WMATA	2017	Studies
Vienna and Franconia-Springfield Station Study	WMATA	2016	Studies
Metro Operating Cost Model Improvements	WMATA	2017	Application/Model
Updated Silver Line Phase II Forecast, Operating Plan	WMATA	2017	Plan
National Park Service Long Range Transportation Plan	NPS	2018	Plan
MARYLAND			
I-95/I-495 Capital Beltway Study (American Legion Bridge to Woodrow Wilson Bridge)	MDOT/SHA, MTA, Montgomery and Frederick Counties	On-hold	DEIS
I-270/US 15 Multimodal Corridor Study (I-370, North of Biggs Ford Road)	MDOT/SHA, Montgomery County	On-hold	FEIS
I-495 West/American Legion Bridge Strategic Plan (495 Express Lanes (VA) to I-270)	MDOT/SHA	TBD	TBD

Figure 5 (continued): Transportation Planning Studies within the Washington Metropolitan Area 2017

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
MARYLAND (continued)			
MD 3 Widening/Upgrade Study (US 50 to MD 32)	MDOT/SHA	On-hold	DEIS
MD 5 Transportation Study (I-95/I-495 to US 301)	MDOT/SHA	Ongoing	DEIS
MD 28/MD 198 Corridor Study (MD 97 to I-95)	MDOT/SHA	2017	TBD
MD 97 Montgomery Hills Study (MD 390 to MD 192)	MDOT/SHA	2017	CE
MD 97 Bus Rapid Transit Study (MD 586 to MD 108)	MDOT/SHA, Montgomery County	Cancelled	n/a
MD 223 Corridor Study (Steed Road to MD 4)	MDOT/SHA, Prince George's County	2016	Report
MD 355 Bus Rapid Transit Study (MD 410/MD 187 to Clarksburg)	MDOT/SHA/MTA, Montgomery and Frederick Counties	2017	Report
MD 586 Bus Rapid Transit Study (MD 97 to MD 355)	MDOT/SHA/MTA, Montgomery County	2017	Report
US 15/US 40 Frederick Freeway Study	MDOT/SHA	2020	TBD
US 29 Bus Rapid Transit Study (MD 410 to MD 198)	MDOT/SHA/MTA, Montgomery County	2017	Report
US 301 South Corridor Transportation Study (I-595/US 50 to Potomac River)	MDOT/SHA, Charles County	On-hold	TBD
US 301 Waldorf Study (TB to South of Waldorf)	MDOT/SHA, Charles County	2018	Feasibility Study
US 50 Feasibility Study (DC Line to Capital Beltway)	MDOT/SHA, Prince George's County	2016	Feasibility Study
Commuter Bus Long Range Plan	MTA	2017	Plan
Bus Facilities Master Plan	MTA	2017	Plan

Figure 5 (continued): Transportation Planning Studies within the Washington Metropolitan Area 2017

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
District of Columbia			
First Place and Galloway NE Redesign (Fort Totten Metrorail Station)	DDOT, WMATA	On-going	Report/Design
DC Streetcar – Union Station to Georgetown	DDOT, FTA, FHWA	2017	NEPA
DC Streetcar – Benning Rd Ext Environmental	DDOT, FTA, FHWA	2017	EA
Long Bridge Environmental	DDOT, FRA	2019	NEPA
C Street NE Implementation Study	DDOT	2017	Design
Florida Avenue NE Study	DDOT	2017	Design
16th Street NW Transit Priority	DDOT	2017	Design
East End Bike Lane Study	DDOT	2017	Design
New York Avenue Streetscape and Trail	DDOT	2017	Study
Florida Avenue NE Study	DDOT	2017	Design
Downtown West	DDOT	2017	Study
Pennsylvania Avenue East of the White House	DDOT/NPS	2017	Study
New York Avenue / South Dakota Avenue Interchange Study	FHWA	2017	Study
Alabama Avenue Safety Study	DDOT	2017	Study
Metrorail Walkshed Improvement Project (TLC)	COG/DDOT	2017	Study

Figure 5 (continued): Transportation Planning Studies within the Washington Metropolitan Area 2017

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
VIRGINIA			
Household Travel Survey	TPB, DOTs, WMATA, Local Governments	2018	Report
Regional Emergency Preparedness Effort	NVTC, Transit Agencies, Emergency Management personnel, VDOT	2018	Plans
Amendments to the Constrained Long-Range Plan	TPB, DOTs, WMATA, Local Governments	2018	CLRP
STARS Liberia Avenue Corridor Improvement Study	VDOT	2018	Report
Significant Projects Ratings Study (HB 599) – Round 2	VDOT	2018	Ratings
I-395 Express Lanes Northern Extension Environmental Study	VDOT	2018	Report
VA Rte. 28 Corridor Feasibility Study	Prince William County / City of Manassas	2018	Improvement Options
Fairfax County Pkwy Corridor Study – Long-Term / Vision	FCDOT	2018	Report
VRE Gainesville-Haymarket Extension Study and NEPA	VRE	2017	NEPA Document
I-495 West / Americal Legion Bridge Strategic Plan Study from I-270 West Spur to the Virginia Hot Lanes	MDSHA Coordinating with VDOT	2018	Report
TransAction Update	NVTA	2018	Report

II. PROPOSED FY 2018 TPB WORK PROGRAM AND BUDGET

Program Structure

The TPB is responsible for the federally required planning process, serves as a forum for regional coordination, and provides technical resources for decision-making. This work program presents the work activities that support the TPB responsibilities. The tasks to be completed under each of the activities are described in the following sections. The staff of the COG Department of Transportation Planning will carry out these activities, with the assistance of staff in other COG departments and supplementary consultant support.

The work program identifies the major work products to be developed, the linkages between them, and the TPB entity responsible for oversight of the products. The next several pages provide revenue and expenditure tables, and a series of figures which illustrate the relationship between and among the TPB work activities. The first four major activities support the coordination, preparation and documentation of the policy and planning products required by federal law and regulations.

1. LONG-RANGE TRANSPORTATION PLANNING

The first major activity, **Long-Range Transportation Planning**, includes preparation for the quadrennial update of the long-range plan in 2018. It also includes developing an unconstrained element which will identify a subset of currently unfunded regionally significant projects that would improve the performance of the region's transportation system.

2. PERFORMANCE-BASED PLANNING

The second major activity, **Performance-Based Planning**, includes establishing a performance-based planning framework for regional transportation decision-making and coordinating the development of measures and targets to be incorporated into performance-based planning for the long-range plan and TIP. It also includes supporting the FY 2017-2022 TIP by updating the projects and programs in it and processing any administrative modifications and amendments.

3. MOBILE EMISSIONS PLANNING

The third major activity, **Mobile Emissions Planning**, includes developing input data and running the mobile emissions (MOVES) model and completing the air quality conformity analysis for the CLRP and the TIP.

4. PLANNING PROGRAMS

The fourth major activity, **Planning Programs**, encompasses a number of activities that ensure inclusion of specific aspects in the metropolitan transportation planning process:

- Regional congestion management process (CMP);
- Systems performance, operations and technology (SPOT) planning;
- Emergency preparedness;
- Safety;
- Freight planning;
- Bicycle and pedestrian planning;
- Public transportation planning, and
- Planning support for the Metropolitan Area Transportation Operations Coordination (MATOC) Program.

5. TRAVEL FORECASTING

The fifth major activity, **Travel Forecasting**, includes developing the highway and transit networks in support of the long range planning activities and maintaining and improving the TPB's travel demand model and forecasting methods.

6. TRAVEL MONITORING AND DATA PROGRAMS

The sixth major activity, **Travel Monitoring and Data Programs**, provides empirical travel information from traffic counts, high occupancy vehicle (HOV) monitoring, and household survey and analysis activities. The data programs include GIS technical support for all planning activities and the regional transportation data clearinghouse.

7. COORDINATION OF COOPERATIVE FORECASTING AND TRANSPORTATION PLANNING

The seventh major activity, **Coordination of Cooperative Forecasting and Transportation Planning**, coordinates local, state and federal planning activities in order to integrate land use and transportation planning in the region.

8. PUBLIC PARTICIPATION AND HUMAN SERVICE TRANSPORTATION COORDINATION

The eighth major activity, **Public Participation and Human Service Transportation Coordination**, includes all public involvement activities; outreach activities to low-income, older adults, minorities, and persons with disabilities; and communication activities to support of the development of the CLRP, TIP, and all other TPB activities. It also maintains the coordinated human service

transportation plan for the region supports the MPO role in the FTA Section 5310 Enhanced Mobility program for elderly persons and persons with disabilities.

9. TRANSPORTATION ALTERNATIVES AND LAND-USE CONNECTIONS PROGRAM

The ninth major activity, **the Transportation Alternatives and Land-Use Connections Program**, strengthens the integration of land use and transportation planning by offering short-term consultant technical assistance to local jurisdictions to advance their planning activities and incorporates the MPO role in the MAP-21 Transportation Alternatives Program.

10. TPB SUPPORT AND MANAGEMENT

The tenth major activity, **TPB Support and Management**, includes the staff and administrative management to provide support for the meetings of TPB, its committees and special work groups and the development and administration of the annual UPWP.

11. TECHNICAL ASSISTANCE

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

12. CONTINUOUS AIRPORT SYSTEM PLANNING (CASP)

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

Work Activity Budgets

Funding for the TPB Basic Work Program is similar to the FY 2017 level. The proposed budget levels for the 12 activities by funding source, which include FTA and FHWA funds together with state and local match, are shown in Table 1 on the next page. The proposed expenditures for each of these 12 tasks are identified in Table 2 on page 20. A detailed breakdown of staffing, consultant costs and other budgetary requirements is provided in Table 3 on page 23. The TPB committee structure is shown in Figure 7 on page 23. The TPB committee or sub-committee responsible for the activities listed in Figure 6 are shown under the descriptions for each task starting on page 25. Figure 8 illustrates the relationship between and among the TPB work activities.

Table 1: Revenue - FY 2018 TPB Proposed Funding by Federal, State, and Local Sources
(July 1, 2017 to June 30, 2018)

	FTA SECT 5303	FHWA PL FUNDS	FAA CASP 90% / 10% FED / LOC	TOTALS
	80% FED & 20% STA/ LOC	80% FED & 20% STA/ LOC		
DDOT ALLOCATIONS				
NEW FY 2018	\$538,004	\$2,209,419		\$2,747,423
UNEXPENDED FY 2016	\$80,386	\$331,484		\$411,870
CARRYOVER FY 2017	\$113,252	\$447,431		\$560,683
SUBTOTAL - DC	\$731,643	\$2,998,334		\$3,719,976
MDOT ALLOCATIONS				
NEW FY 2018	\$1,288,745	\$3,709,536		\$4,998,281
UNEXPENDED FY 2016	\$240,479	\$668,726		\$909,204
CARRYOVER FY 2017	\$350,477	\$979,160		\$1,329,637
SUBTOTAL - MD	\$1,879,700	\$5,357,422		\$7,237,122
VDRPT & VDOT ALLOCATIONS				
NEW FY 2018	\$1,050,257	\$2,927,804		\$3,978,061
UNEXPENDED FY 2016	\$165,308	\$477,834		\$643,143
CARRYOVER FY 2017	\$247,281	\$665,939		\$871,609
SUBTOTAL - VA	\$1,462,847	\$4,071,577		\$5,534,424
TOTAL FHWA/FTA FUNDING ALLOCATIONS				
TOTAL NEW FY 2018	\$2,877,006	\$8,846,759		\$11,723,765
SUB-TOTAL UNEXPENDED FY 2016	\$486,173	\$1,478,044		\$1,964,217
SUB-TOTAL CARRYOVER FY 2017	\$711,010	\$2,092,530		\$2,803,540
SUB-TOTAL - FHWA-FTA	\$4,074,189	\$12,417,333		\$16,491,522
TOTAL BASIC UPWP	\$4,074,189	\$12,417,333		\$16,491,522
FAA - CASP PROGRAM			\$362,235	\$362,235
GRAND TOTAL UPWP	\$4,074,189	\$12,417,333	\$326,265	\$16,853,757

New FY 2018 funding amounts above are same as in FY 2017 UPWP.

Unobligated FY 2016 funds are unexpended funds from the FY 2016 UPWP reprogrammed by DOTs.

Carryover FY 2017 funds are funds from Core and Technical Assistance work activities from the FY 2017 UPWP. These funds will be used to carry out FY 2018 Core program activities including any FY 2017 UPWP Core program activities carried over to FY 2018.

Table 2: FY 2018 UPWP Expenditures

WORK ACTIVITY	FY 2018 TOTAL COST ESTIMATE
CORE PROGRAMS	
1. Long-Range Planning	\$1,615,200
2. Performance-Based Planning and Programming	\$687,807
3. Mobile Emissions Planning	\$1,587,817
4. Planning Programs	\$1,840,950
5. Travel Forecasting	\$2,409,905
6. Travel Monitoring and Data Programs	\$3,650,657
7. Cooperative Forecasting & Transportation Planning Coordination	\$993,576
8. Public Participation & Human Transportation Service Coordination	\$1,055,345
9. Transportation Alternatives and Land Use Connection Programs	\$440,215
10. TPB Support and Management	\$865,054
Sub-total: Core Program	\$15,146,525
11. TECHNICAL ASSISTANCE	
A. District of Columbia	\$274,742
B. Maryland	\$499,828
C. Virginia	\$397,806
D. WMATA	\$172,620
Sub-total: Technical Assistance Program	\$1,344,997
Total - Basic UPWP	\$16,491,522
12. AIR SYSTEMS PLANNING	
1. Continuous Airport System Planning (CASP)	\$362,235
Sub-total: CASP	\$362,265
GRAND TOTAL UPWP	\$16,853,757

Table 3: TPB FY 2018 Work Program by Funding Sources

WORK ACTIVITY	DIRECT LABOR		INDRIECT COSTS				OTHER DIRECT COSTS			TOTAL
	DTP	Other. COG	Mgmt/Admn	Leave	Fringe Ben.	Non-personnel	PC/DATA	Consultants	Other	PROGRAM
CORE PROGRAMS										
1. Long-Range Planning	\$428,879	\$40,500	\$115,467	\$114,454	\$180,419	\$300,512	\$3,000	\$425,000	\$6,968	\$1,615,200
2. Performance-Based Planning & Programming	\$242,427	\$0	\$59,637	\$59,114	\$93,184	\$155,210	\$1,200	\$25,000	\$52,035	\$687,807
3. Mobile Emissions Planning	\$528,689	\$74,221	\$148,316	\$147,015	\$231,746	\$386,004	\$28,438	\$10,000	\$33,387	\$1,587,817
4. Planning Programs	\$669,450	\$15,907	\$168,598	\$167,119	\$263,437	\$438,789	\$1,000	\$100,000	\$16,649	\$1,840,950
5. Travel Forecasting	\$781,383	\$0	\$192,220	\$190,534	\$300,348	\$500,268	\$25,438	\$350,000	\$69,713	\$2,409,905
6. Travel Monitoring and Data Programs	\$543,637	\$0	\$133,735	\$132,562	\$208,963	\$348,055	\$55,000	\$2,025,627	\$203,079	\$3,650,658
7. Cooperative Forecasting & Transp. Plng. Coord.	\$141,394	\$230,663	\$91,526	\$90,723	\$143,011	\$238,204	\$2,500	\$0	\$55,553	\$993,575
8. Public Partici. & Human Transp. Ser.Coord.	\$280,100	\$0	\$68,904	\$68,300	\$107,664	\$179,329	\$2,000	\$245,757	\$103,290	\$1,055,345
9. Transp. Alt. & Land Use Conectn.Programs	\$50,152	\$20,700	\$17,430	\$17,277	\$27,234	\$45,362	\$1,000	\$260,000	\$1,060	\$440,215
10. TPB Support and Management	\$255,808	\$0	\$62,929	\$62,377	\$98,327	\$163,777	\$1,000	\$10,000	\$210,837	\$865,055
Core Program Total	\$3,921,920	\$381,992	\$1,058,762	\$1,049,475	\$1,654,334	\$2,755,511	\$120,576	\$3,451,384	\$752,571	\$15,146,525
11. TECHNICAL ASSISTANCE										
1. District of Columbia	\$51,452	\$0	\$12,657	\$12,546	\$19,777	\$32,941	\$0	\$110,000	\$35,369	\$274,742
2. Maryland	\$70,808	\$0	\$17,419	\$17,266	\$27,217	\$45,333	\$0	\$160,000	\$161,786	\$499,828
3. Virginia	\$42,999	\$0	\$10,578	\$10,485	\$16,528	\$27,529	\$0	\$100,000	\$189,688	\$397,806
4. WMATA	\$7,164	\$0	\$1,762	\$1,747	\$2,754	\$4,587	\$0	\$130,000	\$24,606	\$172,620
Technical Assistance Program Total	\$172,422	\$0	\$42,416	\$42,044	\$66,275	\$110,390	\$0	\$500,000	\$411,449	\$1,344,996
Total Basic Program	\$4,094,342	\$381,992	\$1,101,178	\$1,091,519	\$1,720,610	\$2,865,901	\$120,576	\$3,951,384	\$1,164,020	\$16,491,521
12. CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)										
PROGRAM (CASP)	\$144,053	\$0	\$35,437	\$35,126	\$55,371	\$92,227	\$0	\$0	\$0	\$362,235
GRAND TOTAL	\$4,238,394	\$381,992	\$1,136,615	\$1,126,645	\$1,775,981	\$2,958,128	\$120,576	\$3,951,384	\$1,164,020	\$16,853,756

Figure 6: Major Components of UPWP Work Activities

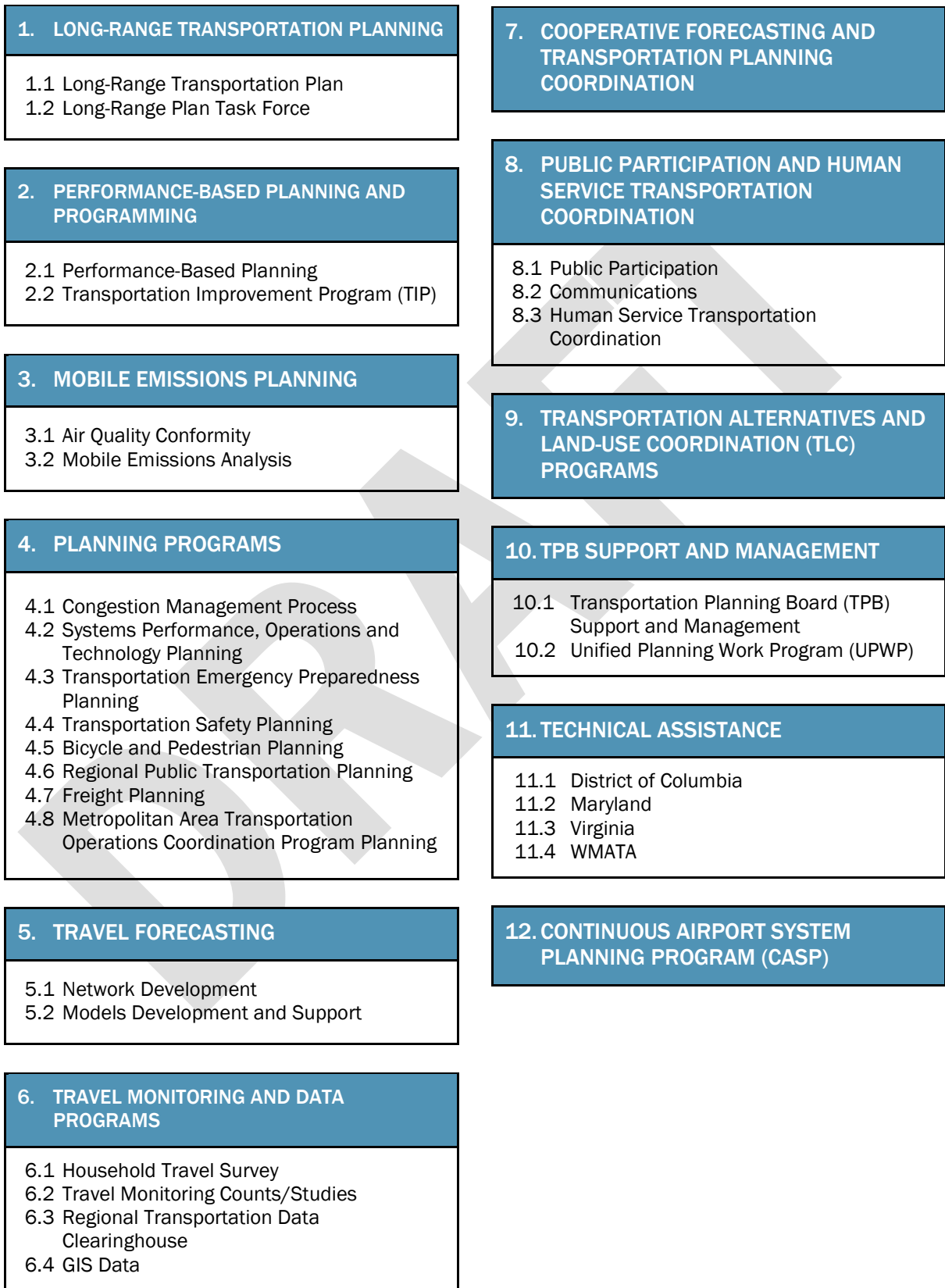


Figure 7: TPB Committee Structure

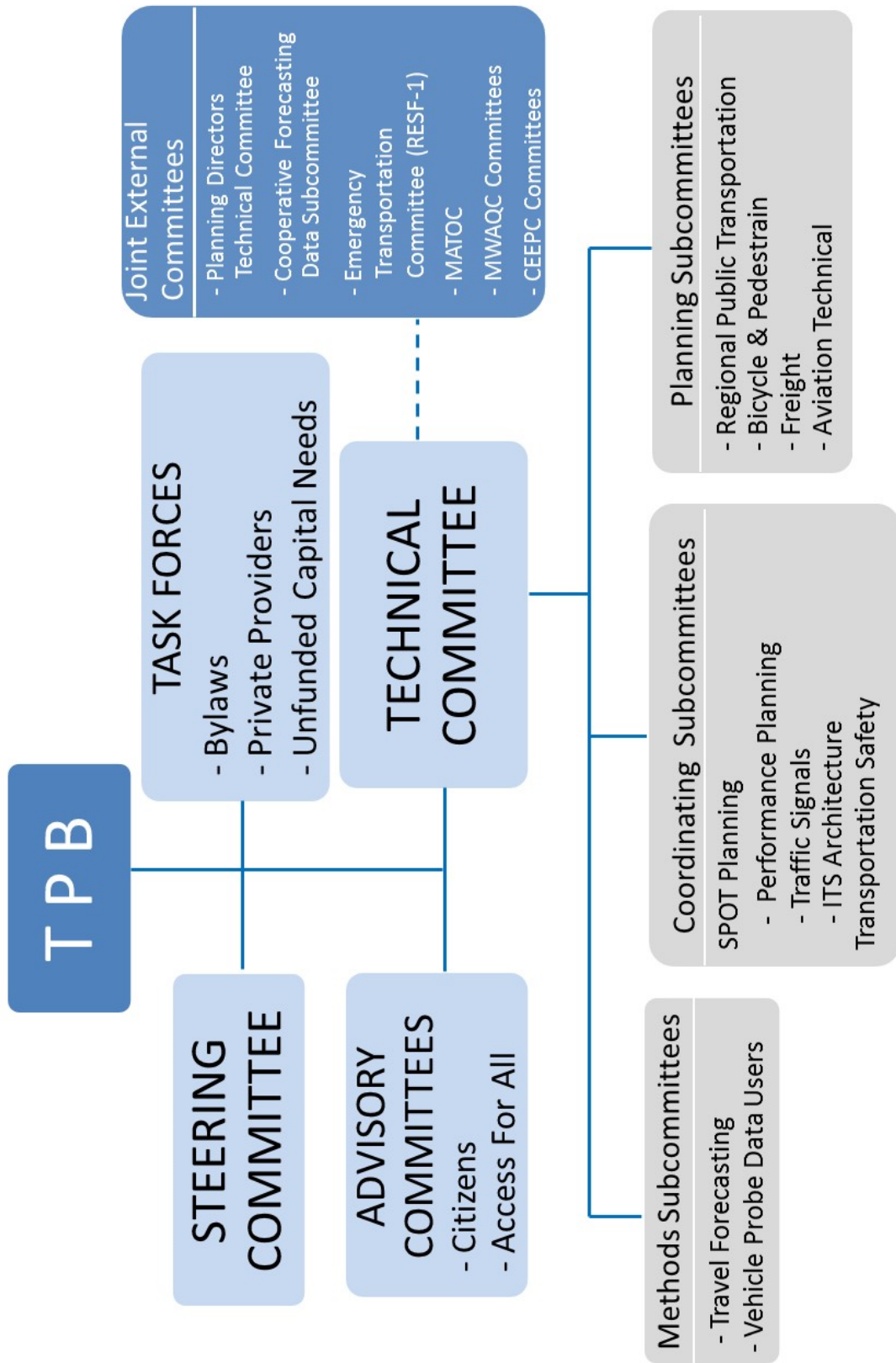
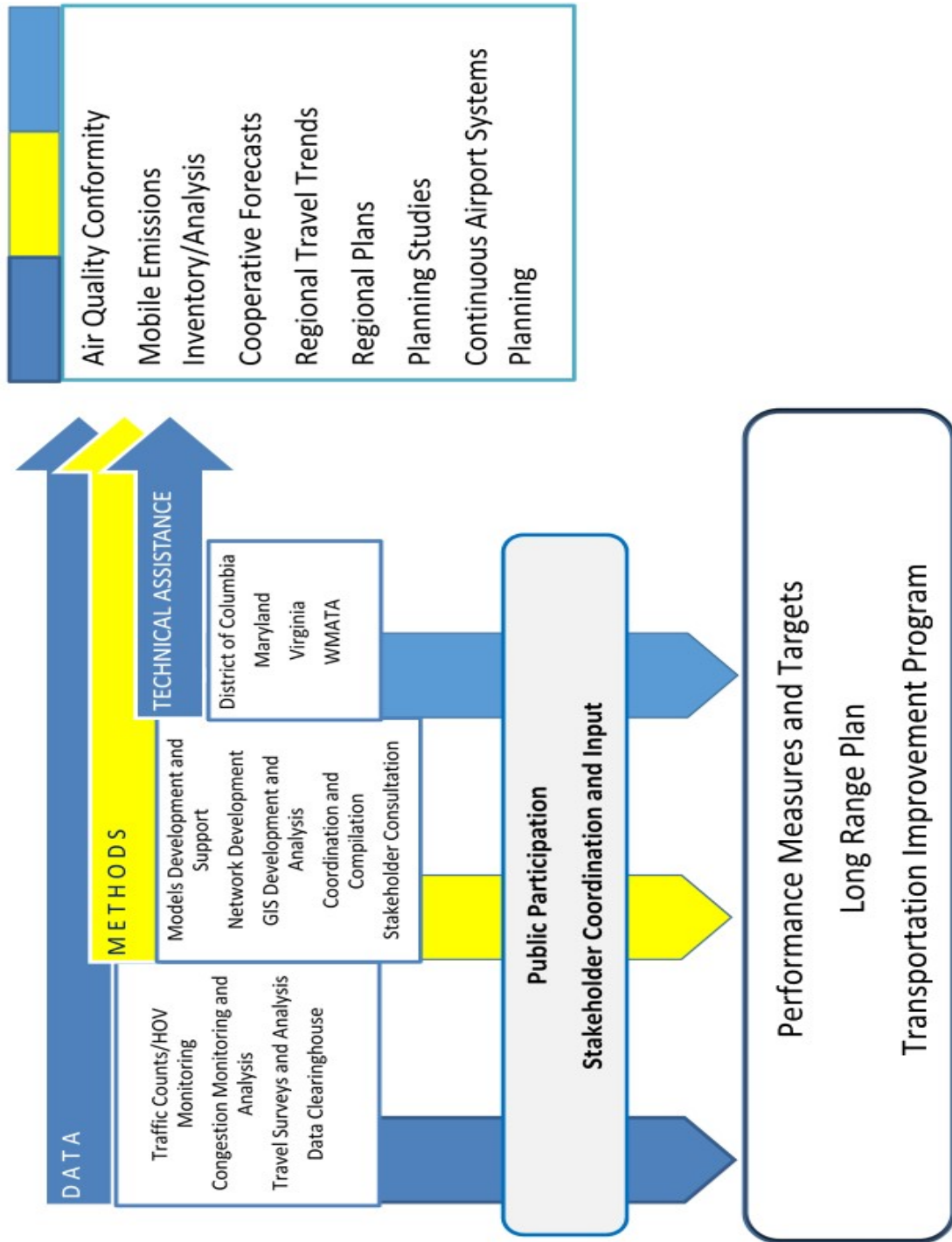


Figure 8: Overview of Planning Products and Supporting Processes



III. MAJOR WORK ACTIVITIES

1. Long-Range Transportation Planning

Long-range planning activities in FY 2018 will include the development of the quadrennial update of the TPB’s Long-Range Transportation Plan, which will include a “Constrained Element” that meets federal requirements (serving essentially the same purpose as the current CLRP) and an unfunded element reflecting regional aspirations. Activities under this item will also include analysis and outreach for the TPB’s Long-Range Plan Task Force.

OVERSIGHT

Technical Committee

MAJOR PRODUCTS

- 2018 quadrennial long-range transportation plan update, including plan documentation, performance analysis, environmental justice analysis, and financial analysis
- 2018 Long-Range Plan Call for Projects

TOTAL COST ESTIMATE

\$1,615,200

1.1 LONG-RANGE TRANSPORTATION PLAN

During FY 2018, the following activities will be undertaken to support the development of the quadrennial update of the region’s long-range transportation plan. The final plan will be approved in the fall of 2018.

- **Stakeholder and Public Outreach:** Prior to the release of the Call for Projects in the fall of 2018, the TPB will conduct outreach to sharpen the region’s articulation of its transportation policies and objectives. A variety of activities and outreach tools will be used to engage a range of stakeholders and residents. This outreach will be designed to do the following: educate the public on established regional policies (particularly, the Regional Transportation Priorities Plan); conduct discussions on anticipated changes in the region (land use, technology, etc.); describe planned transportation projects, including those that are anticipated to be funded and those that are not; identify and provide new detail about the preferences of stakeholders and the public regarding regional transportation policies and strategies. A report on this outreach (for use in the Call for Projects) will reaffirm and refine regional policies and objectives.
- **Financial Element of the Plan:** The financial plan is developed every four years to gather and synthesize information on revenues and expenditures. These forecasts provide the basis for the long-range plan’s financial constraint, a requirement of federal law. The financial plan development process includes the following activities: projection of future revenues, identification of anticipated expenditures; identification of funding for additional expenditures or anticipated shortfalls; reconciliation of revenues and expenditures. The financial plan will be developed by a subcommittee that will meet on a monthly basis.
- **Constrained Element of the Plan:** The Constrained Element of the LRTP will meet federal requirements as the free-standing CLRP did in the past. This element will be designed to do the

following: provide a list of projects that are anticipated to be funded over the life of the plan; conduct air quality analysis to ensure conformity; conduct focused public involvement activities, include two public comment periods: 1) on project submissions, and 2) on the final plan, including the financially constrained component; ensure the final plan document includes a constrained element that meets all federal requirements. Activities, which will be comparable to tasks for past CLRP updates, will include the following key milestones: Release Call for Funded Projects, TPB approval of project submissions, conformity analysis, performance analysis.

- **Unconstrained Element of the Plan:** The work of the Long-Range Plan Task Force will be incorporated into the Plan.
- **Title VI and Environmental Justice Analysis:** A separate Title VI analysis will evaluate the plan for disproportionately high and adverse effects on low-income and minority population groups; this analysis will build upon activities in FY2017 that developed a more robust methodology for analysis that takes into consideration specific concentrations of low-income and minority population groups, areas of potentially vulnerable populations, and additional measures of benefits and burdens for the CLRP, per the 2014 FWHA and FTA planning certification recommendation.
- **Integration of Long-Range Planning Activities and Documentation:** As a process and a final document, the long-range plan will be commonly understood to represent a synthesis of the region's transportation goals and an articulation of the realities we face. The TPB will work to ensure that all previously described pieces of the planning process are coordinated. This includes the development of a compelling title and graphic branding (and any other overarching identifiers) to unify all planning activities. It will also feature new information, provided in useful and attractive formats, which will seek to develop a common understanding of challenges and opportunities, agreed-upon strategies, and approved projects. Key integration activities will include the following: agreement upon a title and necessary branding; development of a website and other communications tools; development of publications at key intervals, as well as the final plan document.

1.2 LONG-RANGE PLAN TASK FORCE

Staff will implement activities as defined in Resolution R16-2017. This includes the following types of activities:

- Staffing and coordinating all task force meetings,
- Developing products to support task force activities (compiling previous work efforts, summarizing TPB and COG governing documents, reviewing best practices from MPOs for similar work, summarizing local best practices, etc),
- Exploring funding sources and financing strategies,
- Procuring and managing a consultant to support and execute the various charges of the task force, and
- Other related duties as deemed necessary.

2. Performance-Based Planning and Programming

OVERSIGHT

Technical Committee

MAJOR PRODUCTS

- Preliminary performance measures and targets
- Updated projects and programs in FY 2017-2022 TIP
- Annual Obligated Projects List
- Enhanced TIP/LRP database

TOTAL COST ESTIMATE

\$687,807

2.1 PERFORMANCE-BASED PLANNING

Federal surface transportation law, as developed in MAP-21 and continued under FAST, requires “a transition to performance-driven, outcome-based approaches” for the federal highway and transit programs. Metropolitan planning organizations, states, and public transportation providers will establish and use a performance-based approach to transportation decision making in planning and programming.

To implement this mandate, rulemakings on performance provisions have been issued by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The **Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Rule**, issued on May 27, 2016, provides for the implementation of performance-based planning within the planning process. The basic framework of the planning process is largely untouched from previous federal surface transportation reauthorization acts. However, the law directs changes to the planning process by requiring States, MPOs, and providers of public transportation to select performance targets and link investment priorities in the TIP and long-range transportation plan to the achievement of performance targets.

The performance-based planning and programming (PBPP) framework requires coordination between States, MPOs, and public transportation providers. Integration of elements of other performance-based plans into the metropolitan planning process are also required, including the:

- Highway Safety Improvement Plan including the State Highway Safety Plan
- Public Transportation Agency Safety Plan
- NHS and Transit Asset Management Plans
- Congestion Mitigation and Air Quality Program Performance Plan
- State Freight Plan

TPB working groups in each area of expertise are undertaking the development of regional performance measures and targets for the metropolitan planning area. TPB staff are coordinating with the local DOTs and public transportation providers on the requirements for data collection, analysis, and reporting. Both the collection of current data and the forecasting of future performance

are being evaluated. As implementation of PBPP continues, working groups will propose necessary revisions to the data processes used to establish measured performance.

Under the final PBPP rulemakings, the states and public transportation providers are required to establish performance targets in support of those measures; and the MPO subsequently has 180 days to establish performance targets for the metropolitan planning area coordinated with those of the states and public transportation providers. After these targets are set, the long-range transportation plan and TIP are required to include a description of the performance measures and targets used in assessing the performance of the transportation system. The long-range transportation plan will also include a system performance report evaluating the condition and performance of the transportation system with respect to the established targets. The TIP will also include a description of the anticipated effect of the TIP toward achieving the performance targets set in the long-range transportation plan.

This task includes:

- Coordinate with DDOT, MDOT and VDOT on their setting of the state performance targets in support of the performance measures, and also coordinate with the DOTs to develop the specific performance targets in relation to the applicable performance measures for the TPB's metropolitan planning area. Similarly, coordinate with WMATA, VDRPT, and other public transportation agencies on their setting of performance targets for transit state of good repair and safety.
- Coordinate with adjacent MPOs, DOTs and other highway owners, and providers of public transportation in the region to jointly agree upon and document in writing the coordinated processes for:
 - Collection of performance data,
 - Selection of performance targets for the metropolitan area,
 - Reporting of metropolitan area targets, and
 - Reporting of actual system performance (related to those targets).
- Re-design the Transportation Improvement Program (TIP) to track projects that are consistent with and reflect long-range transportation plan investment priorities; demonstrate progress toward achieving transportation system performance targets; link investment priorities to the performance targets; and describe the anticipated effect of the TIP toward achieving the performance targets.

2.2 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

Federal surface transportation law, as developed in MAP-21 and continued under FAST, calls for MPOs, states, and public transportation providers to establish and use a performance-based approach to transportation decision making. States and MPOs must integrate performance based plans into their planning process, including goals, objectives, performance measures, and targets, either directly or by reference. The USDOT will establish performance measures and subsequently states and public transportation providers will establish performance targets in support of those measures. The MPO subsequently has 180 days to establish performance targets coordinated with those of the states and public transportation providers. After these targets are set, the CLRP and TIP

are required to include a description of the performance measures and targets used in assessing the performance of the transportation system. The MPO should use targets to track progress towards attainment of critical performance outcomes for MPO region.

Under the performance provisions, the TIP shall do the following, in coordination with the long-range metropolitan transportation plan:

- Contain projects consistent with the metropolitan transportation plan.
- Reflect investment priorities from the metropolitan transportation plan.
- Be designed to make progress toward achieving transportation system performance targets.
- Describe the anticipated effect of the TIP toward achieving the performance targets established in the metropolitan transportation plan.
- Link investment priorities to performance targets.

This task includes:

- Prepare and review amendments and administrative modifications to the currently approved TIP.
- Enhance documentation of the TIP with additional analysis as a part of the CLRP/TIP brochure and the CLRP web site.
- Provide public access to CLRP and TIP project data through an improved online searchable database and a linked GIS database.
- Enhance the TIP/LRP database.
- Prepare an annual listing of projects for which federal funds have been obligated in the preceding year for the FY 2017-2022 TIP.
- Support the development of the FY 2019-2024 TIP.

3. Mobile Emissions Planning

OVERSIGHT

Technical Committee in consultation with MWAQC

MAJOR PRODUCTS

- Transportation modeling inputs for the LRP scenario analysis
- Technical report on the LRP scenario analysis
- Development of Call for Projects and Work Scope for the Air Quality Conformity analysis of the FY 2018 CLRP
- Technical documentation supporting SIP-related activities
- 2017 VIN Inventory Survey data collection and analysis

TOTAL COST ESTIMATE

\$1,587,817

3.1 AIR QUALITY CONFORMITY

The 1990 Clean Air Act Amendments require MPOs to conduct detailed systems-level technical analyses to assess whether or not future transportation emissions resulting from the region’s plans and programs are consistent with federally approved budgets. The Air Quality Conformity (AQC) analysis includes a formal solicitation of transportation projects from programming agencies and staff consultation with transportation agencies, state air agencies and the public. The analysis also involves the substantial travel demand and mobile emissions modeling.

The AQC analysis of the 2016 CLRP was approved on November 2016 (during FY 2017). The next scheduled AQC analysis cycle is planned to begin in the fall of 2017, at which time the quadrennial update of the CLRP will begin. In the event that an AQC analysis is necessary due to an “off-cycle” amendment to the 2016 CLRP, an AQC analysis will be conducted through a technical assistance arrangement.

Consequently, during FY 2018, the Air Quality Conformity activity will essentially focus on:

- 1) Development of future scenarios as directed by the Long Range Plan Task Force. The scenarios will explore combinations of plans, programs, policies and technologies, beyond that what is assumed in the CLRP, in order to measurably reduce future congestion; and
- 2) Initiation and completion of a substantial number of activities related to the AQC analysis of the FY 2018 CLRP. As a part of this activity, staff will:
 - Prepare technical inputs in support of the Long Range Plan (LRP) Task Force scenario analysis, including the development of network, land activity and policy-related inputs to multiple scenarios. Travel modeling and mobile emissions modeling will be undertaken to explore system expansions, land use alternatives and other policy options as specified by the LRP Task force;

- Facilitate consultant–assisted sketch planning analysis as a means of evaluating the LRP scenarios;
- Conduct travel demand and mobile emissions modeling for selected LRP scenarios, as deemed necessary;
- Determine Performance Based Planning and Programming (PBPP) requirements for the FY 2018 CLRP analysis, including coordinating with state DOTs to establish MPO CMAQ emissions reductions targets, GHG emissions reductions targets, and reporting;
- Solicit project inputs from programming agencies and organize into conformity project input table for TPB approval;
- Develop the conformity scope of work, specifying planning assumptions and technical methods supporting the analysis, for TPB approval;
- Prepare technical inputs, begin network coding and travel demand modeling activities for all required analysis years;
- Consult with transportation agencies, air agencies, and the public during each milestone step of the conformity cycle as outlined in the consultation procedures; and
- Keep abreast of federal requirements as related to Air Quality Conformity determinations;

3.2 MOBILE EMISSIONS ANALYSIS

This task conducts a range of analyses to quantify mobile emissions levels of various pollutants in support of air quality planning and Transportation Emissions Reduction Measures (TERMS). TPB staff is also actively involved with State Implementation Plan (SIP) activities that determine how metropolitan areas will attain and maintain national air quality standards. SIP activities include the establishment of mobile emission budgets for criteria pollutants that are analyzed in air quality conformity work. FY 2018 activities will include:

- Develop and review input data to the mobile emissions (MOVES) modeling runs for the 2018 CLRP & FY2019-24 TIP Air Quality Conformity Assessment;
- Execute MOVES sensitivity tests to assess the impacts of changes to model inputs, changes in MOVES software, or changes in hardware platforms;
- Develop on-road mobile emissions inventories related to air quality conformity using MOVES emissions model;
- Follow established TPB interagency and public consultation procedures and coordinate with the COG/DEP staff to involve the Metropolitan Washington Air Quality Committee (MWAQC) in the public and interagency consultation process;
- Conduct 2017 Vehicle Identification Number (VIN) inventory for the Washington, D.C. non-attainment jurisdictions and secure consultant assistance for decoding information from the VIN numbers. VIN surveys are conducted every three years and provide a “snapshot” of vehicle fleet characteristics in the region. Fleet characteristics, especially age, are important inputs to the mobile emission (MOVES) model;
- Support travel demand modeling and mobile emissions modeling in support of SIP planning activities, including the establishment of mobile emissions inventories and budgets;

- Respond to technical requests from COG’s Department of Environmental programs and from TPB member jurisdictions for mobile emissions information;
- Support CMAQ-related activities and provide support with “Hot-Spot” analyses conducted by local transportation agencies;
- Keep abreast of mobile emissions software (MOVES) updates and best practices; and
- Provide technical support to the on-going COG Multi-Sector Working Group (MSWG) to reduce future Greenhouse Gas (GHG) emissions.

DRAFT

4. Planning Programs

OVERSIGHT	Various (see below)
MAJOR PRODUCTS	See program-specific products below
TOTAL COST ESTIMATE	\$1,840,950

4.1 CONGESTION MANAGEMENT PROCESS

Under this task, the regional Congestion Management Process (CMP) informs the CLRP on current congestion on the region's roadways by analyzing congestion data as well as identifying potential multi-modal congestion management strategies.

The CMP addresses FAST and MAP-21 requirements for performance-based planning congestion reduction and system reliability measurements, on both recurring and non-recurring congestion.

This task includes:

- Development of a regional Congestion Management Plan (CMPL), which is identified as an option in FAST. The CMPL will compile the congestion management strategy identification and analysis elements into a document that will advise the overall Long-Range Plan, and will supersede the previous biennial CMP Technical Reports.
- Produce three other major aspects of the CMP:
 - CMP components of the CLRP that specifically address CMP and its subtopics, fully incorporated as elements of the CLRP publication;
 - CMP Documentation Form Information addresses federally-required CMP considerations associated with individual major projects, to be included with overall project information submitted by implementing agencies to the CLRP Call for Projects, and incorporated into the regional CMP; and
 - National Capital Region Congestion Report, released quarterly on the TPB website, reviewing recent information on congestion and reliability on the region's transportation system and featured CMP strategies, with a "dashboard" of key performance indicators.
- Obtain data from cost-effective public-sector and private-sector sources, including the I-95 Corridor Coalition Vehicle Probe Project (VPP), the Regional Integrated Transportation Information System (RITIS) of the Metropolitan Area Transportation Operations Coordination (MATOC) Program, the FHWA National Performance Management Research Data Set (NPMRDS), and, if needed, specialized data collection efforts. Compile, format, and review transportation systems performance data from these sources.
- Analyze congestion on the region's freeway networks, non-freeway arterials, the transit-significant roadways and the freight-significant roadway network.
- Provide CMP technical input to the Performance-Based Planning and Programming (PBPP) task.
- Produce related analyses, such as following a major event, on an as-needed basis.

- In conjunction with the CMP, support the Vehicle Probe Data Users Group (VPDUG) in its role to foster technical and methodological coordination in the application of vehicle probe data by member agencies and jurisdictions, including conducting regular Users Group meetings and maintaining reference materials on the TPB website.

OVERSIGHT

Systems Performance, Operations, and Technology Subcommittee (SPOTS)

MAJOR PRODUCTS

- Updated CMP portions of the CLRP
- Congestion Management Plan
- VPDUG website reference materials
- Documentation for FAST/MAP-21 performance and target reporting requirements

4.2 SYSTEMS PERFORMANCE, OPERATIONS AND TECHNOLOGY PLANNING

The performance outcomes of the existing and planned regional transportation system rely on systems management, operations, and deployment of technologies. This task addresses these considerations in metropolitan transportation planning, in conjunction with the federal requirements for regional transportation systems management and operations (RTSMO).

This task includes:

- Conduct planning for operations including systems monitoring, traffic incident management and response, multi-modal coordination, traffic signal coordination, public traveler information, and related strategies that address regional transportation systems management. Support the regional Traffic Signals Subcommittee and its information exchange, as well as annual regional surveys on traffic signal timing and power back-up systems.
- Conduct resiliency and reliability planning, focusing on outcomes-based applications of technology and operations strategies. Consider the resiliency of the region’s transportation systems to operate during and recover in a timely fashion from major disruptive events, (such as climate/extreme weather events), as well as its everyday reliability considering non-recurring congestion. Conduct related operations performance analyses. Resiliency and reliability are defined as metropolitan transportation planning factors in FAST.
- Advise the metropolitan transportation planning process regarding emerging technologies, including understanding and planning for connected and autonomous vehicles (CAVs) and related emerging “shared economy” aspects of transportation.
- Support and update the longstanding regional Intelligent Transportation Systems (ITS) Architecture.
- In conjunction with FAST/MAP-21 performance-based planning requirements advise on congestion and reliability-related aspects of the FAST/MAP-21 requirements.
- Support the regional Systems Performance, Operations and Technology Subcommittee (SPOTS) (successor to the Management, Operations, and Intelligent Transportation Systems (MOITS) Technical Subcommittee). Also coordinate SPOTS activities with the Metropolitan Area

Transportation Operations Coordination (MATOC) Program, including SPOTS' defined advisory role for the MATOC Program on long-range planning topics.

- Maintain coordination with related member agency activities, and related COG and TPB committees including the Regional Emergency Support Function 1 (RESF-1) Emergency Transportation Committee.

OVERSIGHT

Systems Performance, Operations, and Technology Subcommittee (SPOTS)

MAJOR PRODUCTS

- **Technology, operations and systems performance documentation for the CLRP**
- **Regional ITS architecture update**
- **Annual regional surveys on traffic signal timing and power back-up systems**
- **Documentation for FAST/MAP-21 performance and target reporting requirements**

4.3 TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING

This task provides support and coordination for the transportation sector's role in overall regional emergency preparedness planning, in conjunction with the Metropolitan Washington Council of Governments (COG) Board of Directors and its public safety programs. This is a component of a much larger regional set of emergency preparedness activities funded primarily outside the UPWP by U.S. Department of Homeland Security (DHS) and COG local funding. The Regional Emergency Support Function #1 (RESF-1) Transportation Committee, within the COG public safety committee structure, advises these efforts and coordinates with emergency management agencies, police, fire, and other emergency response (RESF) committees. Regular meetings of the RESF-1 Committee as well as subject matter-specific special events will be supported.

This task includes:

- Plan for the role of transportation as a support agency to emergency management in catastrophic or declared emergencies.
- Undertake emergency coordination and response planning through the emergency management and Homeland Security Urban Area Security Initiative (UASI) processes.
- Coordinate planning for transportation-related emergency communications, technical interoperability, and related capabilities.
- Plan for transportation aspects of public outreach for emergency preparedness.
- Coordinate with regional critical infrastructure protection and related security planning.
- Advise emergency preparedness training and exercises.
- Advise conformance with U.S. Department of Homeland Security (DHS) directives and requirements.
- Advise applications for and management of UASI and other federal Homeland Security funding.
- Support the RESF-1 Emergency Transportation Committee.

OVERSIGHT

**Regional Emergency Support Function #1
Transportation Committee in coordination with the
Technology, Operations, and Performance
Subcommittee**

MAJOR PRODUCTS

- **Documentation pursuant to DHS and UASI requirements**

4.4 TRANSPORTATION SAFETY PLANNING

The Washington metropolitan area is a diverse and rapidly growing region, a major tourist destination, and a gateway for immigrants from all over the world. Growing numbers of pedestrians and bicyclists are using the region’s multimodal transportation system, especially in suburban areas where they were not as common as in years past, thereby increasing the exposure of these vulnerable road users to collisions with vehicle traffic. The FAST Act emphasizes safety as part of the metropolitan planning process and requires MPOs to set safety performance targets for non-motorized as well as motorized users. These and other factors, along with heightened awareness of the importance of safety planning, continue to demonstrate the need for the regional transportation safety planning program.

This task includes:

- Consider engineering, education, enforcement, and emergency medical services strategies in the metropolitan planning process to reduce fatalities, serious injuries, and crashes in the region. This includes planning for safety aspects of the region's transportation system and coordinating with the Strategic Highway Safety Plan development and implementation efforts of the District of Columbia, Maryland, and Virginia, as well as other state, regional, and local efforts.
- Maintain active collaboration with the Street Smart pedestrian and bicycle safety outreach campaign.
- Address regional MAP-21/FAST traffic safety performance measure requirements, including compilation and analysis of safety data, tracking of regional performance measures for safety, and coordinating with member states on the setting of safety targets.
- Encourage the consideration of safety in all aspects of metropolitan transportation planning and ensuring that safety is addressed during CLRP and TIP development.
- Support the Transportation Safety Subcommittee, as well as coordinating with member agencies and transportation safety stakeholders.

OVERSIGHT

Transportation Safety Subcommittee

MAJOR PRODUCTS

- **Safety element of the CLRP**
- **Documentation for FAST/MAP-21 performance and target reporting requirements**

4.5 BICYCLE AND PEDESTRIAN PLANNING

The enhancement of pedestrian and bicycle facilities, activities, and safety in the region is a critical component of the metropolitan transportation planning process. Advised by the regional Bicycle and Pedestrian Subcommittee, the 2015 Regional Bicycle and Pedestrian Plan provides the framework for this effort.

This task includes:

- Complete a major update of the Bicycle and Pedestrian Plan for the National Capital Region. Report to the TPB on progress towards implementation of the Bicycle and Pedestrian Plan.
- Maintain the Bicycle and Pedestrian Plan database on the TPB Web site for member agency and public access, including an on-line mapping and visualization of projects identified in the plan.
- Compile Bicycle and pedestrian project recommendations for the Transportation Improvement Program (TIP) and monitor Regional Complete Streets and Green Streets activities.
- Provide technical advice on bicycle and pedestrian projects serving the goals of the Regional Transportation Priorities Plan for the TPB Long-Range Planning Task Force. In conjunction with the Subcommittee and the Capital Trails Coalition, coordinate on regional or long-distance bicycle routes/project needs, including potential circumferential "bicycle beltway" routes. Coordinate with the Capital Trails Coalition, GIS staff, and the Subcommittee on the compilation of jurisdiction GIS data on existing and planned trails and on-street bicycle facilities.
- Provide technical advice to the "Street Smart" regional pedestrian and bicycle safety public outreach campaign (Street Smart is supported by funding outside the UPWP); on the Capital Bikeshare system; on pedestrian and bicycle mapping and routing systems and information for the region; on pedestrian and bicycle safety; and on bicycle and pedestrian systems usage and consideration in the overall metropolitan transportation planning process.
- Conduct two or more regional bicycle and pedestrian planning or design training, outreach, or professional development opportunities for member agency staffs, at least one of which will have a primary focus on pedestrian planning.
- Support the Bicycle and Pedestrian Subcommittee in its coordination and advisory roles.

OVERSIGHT

MAJOR PRODUCTS

Regional Bicycle and Pedestrian Subcommittee

- **Compilation of bicycle and pedestrian facilities for the TIP**
- **Updated Bicycle and Pedestrian Plan for the National Capital Region**
- **Maintenance of the regional bicycle and pedestrian plan on the TPB website**
- **Recommendations on circumferential and regional bicycle routes**
- **Compilation of jurisdictional GIS data on existing and planned bicycle and pedestrian facilities**

- **Recommendations on unfunded bicycle and pedestrian projects**
- **Two or more regional outreach workshops**

4.6 REGIONAL PUBLIC TRANSPORTATION PLANNING

The region has a variety of local and commuter bus, rail transit, and commuter rail operators and other agencies involved in public transportation planning and operation. It also is served by a number of private providers. This task advises the consideration of public transportation activities and needs as an important part of the metropolitan transportation planning process.

This task includes:

- Provide support to the Regional Public Transportation Subcommittee for the coordination of public transportation planning in the region, and for incorporating regional public transportation plans into the CLRP and TIP.
- Evaluate federal rulemaking for the performance-based planning requirements, specifically transit safety and transit asset management, including data collection, analysis of the performance measures, forecasting, and setting of targets.
- Provide a forum for discussion of the development of the performance measures and selection of performance targets for the metropolitan planning area, in order to coordinate with relevant providers of public transportation to ensure consistency to the maximum extent practicable.
- Provide support to the TPB Private Providers Task Force and document the involvement of private providers of public transportation in the TIP. Also support quarterly meetings of the TPB Regional Taxicab Regulators Task Force.
- Evaluate the performance of the corridor projects implemented by the TPB's Transportation Investments Generating Economic Recovery (TIGER) Grant for Priority Bus in the National Capital Region, including the submission of one-year-after and two-year-after reports for projects concluded in calendar year 2016.
- Produce an annual report on the "State of Public Transportation" to provide informative public transportation operations, customer, and financial facts, including recent accomplishments and upcoming activities, and a summary of the Subcommittee's recommendations for improving services for consideration by the TPB.

OVERSIGHT

Regional Public Transportation Subcommittee

MAJOR PRODUCTS

- **Annual report, data compilation, reports on technical issues, and outreach materials**
- **Private Provider involvement documentation**

4.7 FREIGHT PLANNING

The TPB provides opportunities for consideration, coordination, and collaborative enhancement of planning for freight movement in the region. The Regional Freight Plan updated in FY2016 provides guidance for continued regional planning activities.

This task includes:

- Address the FAST Act requirements related to regional freight planning, including coordination with member jurisdictions on the establishment of a freight performance target.
- Provide opportunities for the consideration of freight issues within the metropolitan transportation planning process through outreach to the private-sector, regular interaction with the TPB and other committees on regional freight planning issues, and advising how freight is addressed during TIP and CLRP development.
- Coordinate with relevant jurisdictions and committees on regional rail issues.
- Compile and analyze readily available data to support regional freight planning.
- Continue “Freight Around the Region” outreach efforts focusing on individual jurisdictions' freight activities and their linkages to the regional freight picture.
- Maintain the Regional Freight Plan and supporting materials on the TPB Web site for member agency and public access.
- Support the TPB Freight Subcommittee in its coordination and advisory roles.

OVERSIGHT

Freight Subcommittee

MAJOR PRODUCTS

- Freight Around the Region publication
- Documentation as necessary supporting MAP-21 and FAST requirements of freight planning
- Regional Freight Forum

4.8 METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING

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

at the University of Maryland. Data provided through RITIS is in daily use by the region's major transportation operations centers.

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

This task includes:

- Provide administrative support of MATOC Steering Committee and subcommittee meetings, including preparation of agendas and summaries and tracking of action items.
- Provide briefings to the TPB on MATOC Program progress.
- Provide TPB staff input and advice to the MATOC Information Systems Subcommittee and Operations Subcommittee.
- Develop supporting or informational materials for the above activities as necessary.

OVERSIGHT

MATOC Steering Committee, in conjunction with the Systems Performance, Operations, and Technology Subcommittee (SPOTS)

MAJOR PRODUCTS

- **MATOC Steering Committee and Subcommittee Meeting Materials**

5. Travel Forecasting

OVERSIGHT

Travel Forecasting Subcommittee

MAJOR PRODUCTS

- A series of highway and transit networks reflecting the latest CLRP and TIP for input to the regional travel demand model together with technical documentation.
- Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process.

TOTAL COST ESTIMATE

\$2,409,905

5.1 NETWORK DEVELOPMENT

This task includes preparing transportation network files, which are primary inputs to the regional travel demand model that is used for forecasting travel in the CLRP, project planning studies, special scenario studies, and in support of the travel model development activities.

This task includes:

- Prepare base- and forecast-year highway and transit networks, in accordance with the latest CLRP and TIP elements received from state and local agencies, in support of long range planning and any special regional studies.
- Update the TPB's base-year (2016) transit network to reflect the most current service in the Metropolitan Washington Region.
- Maintain and refine the TPB's existing GIS-based information system used to facilitate network coding and multi-year network file management.
- Support the application of the current regional travel demand model (Version 2.3.57a or its successor) for air quality planning work and other TPB planning studies, which could also include updates in the transportation networks due to the strategic plan for models development (described below).
- Respond to network-related technical data requests, including requests for transit line files, station files, and shapefiles associated with features of the regional highway or transit network.

5.2 MODELS DEVELOPMENT AND SUPPORT

This task involves maintaining and improving the travel forecasting model which supports the regional transportation planning process. During FY 2016, a seven-year strategic models development plan and a short-term implementation plan for improving the TPB trip-based travel forecasting capabilities were formulated. The short-term improvements, which were started during FY 2016, are planned to be completed in FY 2017.

This task includes:

- Continue the consultant-assisted effort to improve the current TPB trip-based travel model and begin development of an activity-based travel demand forecasting model (ABM) with existing data.
- Support the application of the current regional travel demand model (Version 2.3.57a or its successor) for air quality planning work and other TPB planning studies. This will include the update of travel modeling inputs as necessary (external trips and other exogenous trip tables), investigating technical problems that might arise during the course of application, and documenting refinements to the model.
- Work with local transportation agencies in formulating ways in which the regional travel model might be used to provide performance-based measures as called for in the new surface transportation authorization legislation (FAST Act).
- Assess model performance and reasonableness through comparison of travel model results with 2010 Census data and the TPB geographically focused household travel survey data.
- Provide staff support for the TPB Travel Forecasting Subcommittee, which is charged with overseeing technical practices and improvements to the TPB travel forecasting process.
- Keep abreast of new developments in travel demand forecasting, via participation with relevant groups, such as the Transportation Research Board (TRB) and the Travel Modeling Improvement Program (TMIP).
- Respond to model-related data requests from local partner agencies and their consultants.
- Provide continued support for software used to run the TPB travel demand model (Citilabs Cube Base, Cube Voyager, and Cube Cluster).
- Provide continued technical support for software used to estimate mobile emissions, such as the EPA MOVES model, including any supporting software applications.
- Provide training to DTP staff in various versions of Citilabs Cube Base, Cube Voyager, Cube Cluster, and MOVES, such as MOVES2014.
- Coordinate with the COG Office of Information, Technology and Facilities Management (ITFM) to help maintain the computers used to run the regional travel demand model, including the maintenance of data storage systems for the back-up, archiving, and retrieval of model-related files.

6. Travel Monitoring and Data Programs

OVERSIGHT	Various (see below)
MAJOR PRODUCTS	See program-specific products below
TOTAL COST ESTIMATE	\$3,650,657

6.1 HOUSEHOLD TRAVEL SURVEY

A new large scale region-wide household travel data is needed to obtain updated information on the travel patterns of persons residing in the TPB modeled area and the key factors influencing their current travel choices and travel behavior. The last large scale region-wide household travel survey was conducted in 2007/2008. The data collected in this new regional household travel survey will also be used to develop and calibrate the next generation TPB regional travel demand forecasting model that will be used to forecast future travel demands based on projected household and employment growth and planned improvements to the regional transportation system. In FY 2018, a professional survey firm will complete data collection for this new household travel survey. This survey will be designed to obtain the participation of approximately 15,000 households in TPB modeled area jurisdictions.

This task includes:

- Completion of data collection for the 2017/2018 TPB Regional Household Travel Survey, a region-wide household travel survey designed to collect detailed information on the characteristics and daily travel of approximately 15,000 households in the TPB modeled area.
- Coordination of survey activities with state and local government staff as appropriate and response to inquiries from survey participants and the media about the survey.
- Analysis of household travel survey response patterns by jurisdiction and activity center strata and begin development of initial survey weighting factors.
- Tabulations of Census American Communities Survey (ACS) demographic, household, worker characteristic and commuting data by household travel survey jurisdiction and activity center strata for comparison with preliminary 2017/2018 TPB Regional Household Travel Survey data tabulations.
- Analysis and reporting on comparisons of preliminary 2017/2018 TPB Regional Household Travel Survey data tabulations with Census ACS demographic, household, worker characteristic and commuting data.
- Presentations and information reports on various aspects of daily household and vehicle travel in the region to support analysis of regional growth and transportation issues.
- Provision of data, documentation, and technical support to users of previous TPB Household Travel Surveys. Update user documentation as required.

OVERSIGHT

Travel Forecasting Subcommittee

MAJOR PRODUCTS

- **Collected survey data**
- **Presentation and Information Reports**
- **Technical support**

6.2 TRAVEL MONITORING COUNTS/STUDIES

This task involves the conduct of special traffic counts, travel time runs and other special travel monitoring studies to support regional travel demand model validation and refinement activities and other activities such as regional high-occupancy vehicle (HOV) facility performance analysis and the identification of high volume truck travel routes in the region. In FY 2018, a travel monitoring study of the region's high-occupancy vehicle (HOV) facilities will be conducted.

This task includes:

- Collection of AM peak period traffic volume, vehicle occupancy and travel time data on the region's HOV facilities.
- Processing, tabulation and analysis of the regional HOV volume, occupancy and travel time monitoring data collected.
- Preparation of a technical report summarizing the key findings and changes from previous TPB regional HOV facility monitoring studies

OVERSIGHT

Travel Forecasting Subcommittee

MAJOR PRODUCTS

- **HOV Monitoring Data**
- **Technical Report**

6.3 REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

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

This task includes:

- Update of Clearinghouse traffic volume data with AADT and AAWDT volume estimates, hourly directional traffic volume counts and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.

- Update of Clearinghouse transit ridership data with data received from WMATA, PRTC, VRE, MTA and local transit agencies including the Ride-On, The Bus, ART, DASH and the Fairfax Connector.
- Update of freeway and arterial road speed and level of service (LOS) data.
- Update of Clearinghouse highway network bridge and pavement condition data from most current National Bridge Inventory and Highway Performance Management System (HPMS) databases.
- With the Travel Forecasting and Mobile Emissions Planning Team, collectively develop specifications for a geodatabase of cadastral (parcel-level) data; evaluate data availability and collect relevant data (polygon, point) as required; begin initial development of a regional parcel level land use database to support travel forecasting model improvements and update Cooperative Forecasting land data by TAZ;
- Distribute Regional Transportation Clearinghouse Data to TPB participating agencies via a GIS web-based application.

OVERSIGHT

MAJOR PRODUCTS

Technical Committee

- Updated clearinghouse database and documentation
- Web interface to access clearinghouse data

6.4 GIS DATA

This activity provides Geographic Information System (GIS) data and technical support to users of the TPB GIS for many important planning activities, including the CLRP, the TIP, the LRP, Congestion Monitoring and Analysis, Cooperative Forecasting, Regional Transportation Data Clearinghouse, Network and Models Development, and Bicycle Planning.

This task includes:

- Provision of data and technical support to staff using GIS for development and distribution of data and information developed for TPB planning activities, including the CLRP and LRP, the TIP, Congestion Monitoring and Analysis, Cooperative Forecasting, Regional Transportation Data Clearinghouse, Network and Models Development, and Freight, Bike and Pedestrian Planning activities.
- Provide technical guidance and develop GIS-based products (web maps and applications, visualization, etc.) for TPB planning activities, including the CLRP and LRP, the TIP, Congestion Monitoring and Analysis, Cooperative Forecasting, Regional Transportation Data Clearinghouse, Network and Models Development, and Freight, Bike, and Pedestrian Planning activities, as appropriate.
- Response to requests for TPB GIS metadata, databases, and applications.
- Coordination of regional GIS activities with state DOTs, WMATA, and the local governments through COG's GIS Committee and subcommittees.

- Maintain and update GIS-related hardware and software used by staff for regional transportation planning activities.

OVERSIGHT

MAJOR PRODUCTS

Technical Committee

- Updated GIS software, databases, online web map applications, user documentation, support and coordination of COG/TPB GIS activities

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7. Cooperative Forecasting and Transportation Planning Coordination

This activity coordinates local, state and federal planning activities, develops population, household, and employment forecasts that are used as input into TPB travel demand-forecasting model, and facilitates the integration of land use and transportation planning in the region.

- Support of the Planning Directors Technical Advisory Committee (PDTAC) in the coordination of local, state and federal planning activities and the integration of land use and transportation planning in the region.
- Analysis of changes in regional economic, demographic and housing trends drawing on the results from the Census American Communities Survey (ACS) and from other available federal, state, local data sources.
- Collaboration with members of the Cooperative Forecasting Subcommittee to enhance and improve the quality of small area (TAZ-level) employment data.
- Collaboration with the Cooperative Forecasting Subcommittee and the region's Planning Directors to assess the effects of significant transportation system changes on the Cooperative Forecasting land activity forecasts and the development of updated Round 9.1 Transportation Analysis Zone (TAZ)-level growth forecasts
- Documentation of key land use and transportation assumptions used in making updates to the Cooperative Forecasting land activity forecasts.
- Update and maintenance of Cooperative Forecasting land activity databases of TAZ-level population, household, and employment forecasts that are used as input into TPB travel demand-forecasting model.
- Mapping and analysis of Cooperative Forecasting growth forecasts in relation to COG Activity Centers and premium transit locations.
- Response to public comments on the Round 9.1 forecasts and the Cooperative Forecasting process.
- Preparation and publication of useful economic, demographic and housing-related information products including the Regional Economic Monitoring Reports (REMS) reports, the annual "Commercial Development Indicators" and economic and demographic data tables to be included in the Region Forward work program.
- Support the Cooperative Forecasting activities associated with the Long Range Plan Task Force land use scenario(s), as identified through the Long-Range Plan Task Force.

OVERSIGHT

Technical Committee

MAJOR PRODUCTS

- Updated Cooperative Forecasting land activity forecasts and documentation
- Analysis of Activity Center growth forecasts
- Information reports and products

TOTAL COST ESTIMATE

\$993,576

8. Public Participation and Human Service Transportation Coordination

OVERSIGHT

Transportation Planning Board

MAJOR PRODUCTS

- Public comment solicited and documented
- Support for Activity 1 – Long Range Planning
- CAC and AFA committee reports
- Information dissemination through the website, social media, and printed documents
- USDOT Triennial review of Title VI Program

TOTAL COST ESTIMATE

\$1,055,345

8.1 PUBLIC PARTICIPATION

The Update of the Participation Plan as approved by the TPB in September 2014 will guide all public involvement activities to support the development of the CLRP, TIP, and all other TPB planning activities. The TPB's Public Participation plan emphasizes involving traditionally-disadvantaged populations in the planning process, as part of the TPB's commitment to ensuring nondiscrimination in all its programs and activities as required under Title VI and the Environmental Justice Executive Order.

- Conduct regular public involvement as described in the TPB Participation Plan, including public comment sessions as the beginning of TPB meetings and official public comment periods prior to the adoption of TPB plans and programs as key TPB policies and documents.
- Provide staff support for the TPB Citizens Advisory Committee (CAC), including organizing monthly meetings and outreach sessions, and drafting written materials for the committee.
- Provide staff support for the TPB Access for All Advisory (AFA) Committee that includes leaders and representatives of low-income communities, minority communities, persons with disabilities and those with limited English skills as the TPB's primary strategy for engaging traditionally-disadvantaged population groups in the planning process. Staff will transmit AFA Committee comments to the TPB on transportation plans, projects, programs, services and issues that are important to AFA community groups.
- Develop and conduct workshops or events, as needed, to engage the public and community leaders on key regional transportation issues, including challenges reflected in the development of the Long Range Plan, the TIP, and the work of the Long-Range Plan Task Force.
- Conduct at least one session of the Community Leadership Institute, a two-day workshop designed to help community activists learn how to get more actively involved in transportation decision making in the Washington region.
- Support implementation of the TPB Participation Plan and conduct evaluation activities of the public involvement process.

- Conduct continuing evaluation activities of the public involvement process using the process for evaluation established in FY 2016.
- The next triennial Title VI program update is due to FTA on June 1, 2018. Staff will prepare for and participate in the Title VI program update.

8.2 COMMUNICATIONS

- Develop new written materials, tools and visualization techniques to better explain to the public how the planning process works at the local, regional and state levels.
- Produce regular on-line and print TPB newsletters.
- Produce the annual edition of the Region magazine highlighting significant TPB activities in the past year.
- Ensure that the TPB's website, publications and official documents are timely, thorough and user-friendly.
- Effectively use technology, including social media and other web-based tools, to spread information about regional transportation planning and engage the public in planning discussions and Produce regular on-line and/or print TPB newsletters

8.3 HUMAN SERVICE TRANSPORTATION COORDINATION

Under Federal regulations, a Coordinated Human Service Transportation Plan is required to guide funding decisions for the Federal Transit Administration (FTA) "Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities" program. COG is designated recipient of this program for the Washington DC-VA-MD Urbanized Area. In 2014, the TPB approved an update to the Coordinated Plan to respond to the requirements of the Enhanced Mobility program.

The TPB established the Human Service Transportation Coordination Task Force in 2006 to help develop the Coordinated Plan. In FY2016, the Task Force was incorporated into the Access for All Advisory Committee given overlapping membership and that the work of the Task Force is largely done.

This task includes:

- Review the Coordinated Human Service Transportation Plan with the AFA Committee for any revisions or updates to capture unmet transportation needs for people with disabilities and older adults.
- Plan for the next solicitation and selection of projects for Enhanced Mobility funding under FAST.
- Further the goals regional mobility management efforts to provide an array of transportation services and options to older adults and people with disabilities.

9. Transportation Alternatives and Land Use Connection (TLC) Programs

This work activity strengthens the coordination between local land use and transportation planning. Begun as a pilot in November 2006, the TLC program offers short-term technical assistance through consultant teams to local jurisdictions to advance their planning activities.

This activity will encompass the following work tasks in FY 2018:

- Offer short-term consultant team technical assistance to local jurisdictions to advance their land use and transportation planning activities.
- Fund at least six technical assistance planning projects at a level between \$20,000 and \$60,000 each.
- Fund at least one project for between \$80,000 and \$100,000 to perform project design to achieve 30% completion.
- Maintain and update the TLC Regional Clearinghouse and website.
- Develop tools and activities to facilitate regional learning about TLC issues among TPB member jurisdictions through the Regional Peer Exchange Network. Organize at least one regional meeting to facilitate an exchange of information about lessons learned from past TLC projects.
- Identify recommended implementation action steps in each planning project report, such as further study needs, more stakeholder collaboration, suggested land use or local policy changes, and transportation investment opportunities and priorities.
- Provide staff support for TLC Technical Assistance Projects to be conducted as part of the MDOT Technical Assistance Program and for other projects where additional funding is provided by state or local agencies.
- Conduct the selection process for small capital improvement projects using funding sub-allocated to the Washington metropolitan region through the state DOTs from the MAP-21 Transportation Alternatives Program (TAP).

OVERSIGHT

MAJOR PRODUCTS

Technical Committee

- Technical assistance, including final reports, provided by consultant teams to localities
- Updated website
- Peer exchange activities
- TAP coordination

TOTAL COST ESTIMATE

\$440,215

10. TPB Support and Management

This activity includes support for the Transportation Planning Board (TPB), management activities not attributable to specific tasks in the work program, and development of the Unified Planning Work Program (UPWP).

OVERSIGHT

Transportation Planning Board

MAJOR PRODUCTS

- **Materials for the meetings of the TPB, Steering Committee, Technical Committee, and State Technical Working Group**
- **Responses to information requests from elected officials, federal agencies, and media**
- **Participation in external meetings related to the TPB work program**

TOTAL COST ESTIMATE

\$865,054

10.1 TRANSPORTATION PLANNING BOARD (TPB) SUPPORT AND MANAGEMENT

- Make all administrative arrangements and provide staff support for TPB, the TPB Steering Committee, the State Technical Working Group, the TPB Technical Committee and special TPB work groups meetings.
- Maintain TPB Committee membership rosters and distribution lists and prepare meeting materials for TPB Committee meetings.
- Prepare monthly Director's Report.
- Respond to periodic requests from TPB members, federal agencies, Congressional offices, media and others for information or data of a general transportation nature.
- Meet with TPB Board members and participating agency staff to discuss current and emerging regional transportation planning issues.
- Respond to TPB correspondence and draft correspondence requested by the Board.
- Participate in meetings of other agencies whose programs and activities relate to and impact the TPB work program.
- Draft Memoranda of Understanding with other agencies for the TPB's review and approval.
- Participation in the Association of Metropolitan Planning Organizations (AMPO) and AMPO meetings.
- Participation in the Virginia Association of Metropolitan Planning Organizations (VAMPO) and VAMPO meetings.
- Coordination of TPB Planning Activities with Program Directors.
- Day-to-day management of and allocation of staff and financial resources
- Monitoring of all work program activities and expenditures

10.2 UNIFIED PLANNING WORK PROGRAM (UPWP)

The 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.

This task includes:

- Develop the FY 2018 UPWP that complies with anticipated metropolitan planning requirements in the Fixing America's Surface Transportation (FAST) Act.
- Supervise the preparation, negotiation, and approval of the annual work program and budget involving the State Transportation Agencies, the TPB Technical Committee, the TPB Technical Committee, the Steering Committee and the TPB.
- Preparation of monthly UPWP progress reports for each of the state agencies administering planning funding and prepare all necessary federal grant applications submissions.
- Review all monthly UPWP invoices going to each of the state agencies administering planning funding.

DRAFT

11. Technical Assistance

This TPB work program activity responds to requests for technical assistance from the state and local governments and transit operating agencies. This activity takes the form of technical work tasks in which TPB developed tools, techniques, data, and capabilities are used to support DDOT, MDOT, VDOT, VDRPT and WMATA sub-area planning, travel monitoring, travel modeling and data collection efforts related to regional transportation planning priorities. The funding level allocated to technical assistance is an agreed upon percentage of the total new FY 2018 funding in the basic work program. The funding level for each state is an agreed upon percentage of the total new FTA and FHWA planning funding passed through each state. The funding level for WMATA is an agreed upon percentage of the total new FTA funding. The specific activities and levels of effort are developed through consultation between the state and WMATA representatives and TPB staff.

DRAFT

11.1 DISTRICT OF COLUMBIA

MAJOR PRODUCTS See program-specific products below

TOTAL COST ESTIMATE **\$274,742**

1. Program Development, Data Requests and Miscellaneous Services

This work activity supports staff time spent in developing scopes of work for requested projects and in administering the DC Technical Assistance work program throughout the year. Work activities involve meeting with DDOT staff to discuss proposed projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and progress reporting throughout the projects. Additionally, this project establishes an account to address requests 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.

MAJOR PRODUCT • Specific scopes of work, on-going activity

TOTAL COST ESTIMATE **\$10,000**

2. Traffic Counts and Highway Performance Management System (HPMS) Support

This task includes procurement of a contractor to perform 7-day vehicle classification counts and 3-day traffic volume machine counts on roadway segments and grade-separated ramps that part of DDOT's traffic counting program. A total of approximately 200 traffic counts and 60 ramp counts will be performed city-wide at locations specified by DDOT's HPMS Coordinating Committee. Staff will also provide quality control checking of the traffic counts conducted by the contractor and provide technical support to DDOT in preparation of its annual HPMS submittal. This technical support will include processing of the traffic counts into average annual daily traffic (AADT) volumes, growth factoring of AADT volumes, and preparation of vehicle classification summaries of daily travel activity and preparation of traffic volume metadata.

MAJOR PRODUCT • Machine traffic counts and HPMS submittal support,
Schedule: June 2018

TOTAL COST ESTIMATE **\$235,000**

3. Other Tasks to Be Defined

This work element is established to respond to requests by DDOT for anticipated technical assistance work tasks that are not yet defined. These work tasks will be performed upon further specific authorization received from DDOT in FY 2018.

TOTAL COST ESTIMATE **\$29,742**

11.2 MARYLAND

MAJOR PRODUCTS See program-specific products below

TOTAL COST ESTIMATE \$499,828

1. Program Development Management

This work activity supports staff time spent administering the Maryland Technical Assistance work program throughout the year. Work activities would involve meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work task also includes staff time needed for the development of the annual planning work program.

MAJOR PRODUCT • Specific scopes of work, on-going activity

TOTAL COST ESTIMATE \$20,000

2. Project Planning Studies

This work task supports staff time associated with the development of scopes of work, interagency coordination, and technical analyses associated with travel demand modeling, evaluation of alternatives and coordination with other governmental entities and consultants. It is anticipated that technical work will continue on the MD 586 and MD 97 BRT transit corridors and potentially start work on the I-495 multimodal corridor. This work element also anticipates technical work on new planning studies administered by MDOT, MD SHA and other agencies.

TOTAL COST ESTIMATE \$90,000

3. Feasibility/Special Studies

This work task will provide funding to support technical support on feasibility/special studies as requested by MDOT, SHA and other agencies in Maryland. Work may include but is not limited to technical support in ongoing corridor/subarea studies, initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities and scenario analyses. Project authorizations may occur throughout the fiscal year as priorities dictate to address transportation planning initiatives and strategic goals of MDOT, SHA and other agencies.

TOTAL COST ESTIMATE \$50,000

4. Travel Monitoring/Transportation Performance Measures

This work task will provide funding for data collection and analysis to support the assessment of system performance on major freeway and arterial roadway segments of the region's transportation network in

Maryland. Computation and analysis of various travel time, congestion level, system reliability and freight performance metrics will be performed as part of this work task.

TOTAL COST ESTIMATE **\$150,000**

5. Miscellaneous Technical Support:

This work task will support technical work associated with several pursuits of MDOT and MD SHA that do not fit into other Technical Assistance work tasks. It is envisioned that Transit Oriented Development (TOD) studies, statewide model support, GIS applications, scenario studies, SHRP2 Capacity and Reliability Product Implementation assessments, and possibly freight/special generator studies may be conducted as part of this work task.

TOTAL COST ESTIMATE **\$25,000**

6. Transportation / Land Use Connections Program

The Transportation / Land Use Connections (TLC) program is an effort to provide technical assistance to local governments in the Washington region in order to facilitate integrating land use and transportation planning at the community level. Begun as a six-month regional pilot program in January 2007, this project has been very well received. MDOT supplements this regional effort by allocating some of its Technical Assistance funds to provide additional TLC grant funding for Maryland jurisdictions.

MAJOR PRODUCTS

- **Grant awards, technical reports from contractors, To be completed by June 2018**

TOTAL COST ESTIMATE **\$160,000**

7. Other Tasks yet to be defined

This work element is established to respond to requests by MDOT and SHA for anticipated technical assistance work tasks that are not yet defined. These work tasks will be performed upon further specific authorization from MDOT and MMDSHA in FY 2018.

TOTAL COST ESTIMATE **\$4,828**

11.3 VIRGINIA

MAJOR PRODUCTS See program-specific products below

TOTAL COST ESTIMATE \$397,806

1. Program Development and Data/Documentation Processing

This work activity supports staff time spent administering the VA Technical Assistance work program throughout the year. Work activities include meetings with participating agencies to discuss proposed/new projects, development of monthly progress reports, budgetary reporting and technical quality control. This work task also includes staff time to process requests for data/documents received from local jurisdictions in Northern Virginia as advised by VDOT throughout the year.

MAJOR PRODUCT • Specific scopes of work, on-going activity

TOTAL COST ESTIMATE \$15,000

2. Travel Monitoring and Survey

This work activity supports an ongoing continuous program to monitor travel and system performance on major commuting routes in Northern Virginia, with a goal to collect travel monitoring data for each major route on a 2 to 3 year cycle. Collected data and system performance analysis will include volume and occupancy data, travel time data, and other information. This travel monitoring program will also include collection of bicycle and pedestrian data at various locations throughout Northern Virginia, as identified by VDOT.

MAJOR PRODUCT • Program management plan, data and analysis, technical memorandum – on-going activity

TOTAL COST ESTIMATE \$140,000

3. Travel Demand Modeling

This work activity is designed to assist VDOT with the use of results from the regional transportation travel demand model to support various transportation planning efforts and studies in Northern Virginia. Specific tasks undertaken will be identified throughout the year and are likely to include: developing forecasts and/or extracting specific information from the regional model forecasts for specific scenarios/options evolving out of ongoing studies and/or project planning efforts; and assistance with documentation, training and customization of the regional travel demand forecasting model for the Northern Virginia sub-area per VDOT's requirements.

MAJOR PRODUCT • Model output, technical memoranda, on-going activity

TOTAL COST ESTIMATE \$40,000

4. Regional and Sub-regional Studies

This work activity is designed to provide technical analysis and TPB staff support for various regional and sub-regional planning studies throughout the year as identified and requested VDOT and/or VDRPT. Work may include but is not be limited to technical support for ongoing corridor/subarea studies and initiation of new studies ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. Staff may also assist VDOT in its work on a system-wide evaluation designed to provide information relating to the effectiveness of ongoing and planned projects and programs aimed at addressing the congestion and mobility challenges in Northern Virginia.

MAJOR PRODUCT

- **Technical analysis and support for Northern Virginia regional and sub-regional planning studies, on-going activity**

TOTAL COST ESTIMATE

\$100,000

5. Long Distance Commuter Bus Study

The purpose of this study is to determine demand for public commuter bus service into Northern Virginia from areas beyond the urbanized area. Specific tasks will include reviewing previous studies and best practices, documenting existing commuter bus, intercity bus and train, carpools and vanpools, estimating travel demand, and identifying strategies to provide publicly operated commuter bus service from outside the region into the region. This study began during FY17 and will conclude during FY18.

MAJOR PRODUCT

- **Technical Report, September 2018**

TOTAL COST ESTIMATE

\$40,000

6. Other Tasks to be Defined

This work element is established to respond to requests by VDOT and VDRPT for anticipated technical assistance work tasks that are not yet defined. These work tasks will be performed upon further specific authorization from VDOT and VDRPT in FY 2018.

TOTAL COST ESTIMATE

\$62,806

11.4 WMATA

MAJOR PRODUCTS See program-specific products below

TOTAL COST ESTIMATE **\$172,620**

1. Program Development

This work activity supports staff time spent in developing the scopes for requested work tasks and administering the WMATA Technical Assistance work program throughout the year. Work activities include 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.

MAJOR PRODUCT • Specific scopes of work, on-going activity

TOTAL COST ESTIMATE **\$5,000**

2. 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, or data from any of the planning work activities at COG.

MAJOR PRODUCT • Specific scopes of work, on-going activity

TOTAL COST ESTIMATE **\$15,000**

3. Other Tasks to be Defined

This work element is established to respond to requests by WMATA for anticipated technical assistance work tasks that are not yet defined. These work tasks will be performed upon further specific authorization from WMATA in FY 2018.

TOTAL COST ESTIMATE **\$152,620**

12. Continuous Airport System Planning Program

OVERSIGHT

Aviation Technical Subcommittee

MAJOR PRODUCTS

- Comprehensive Regional Air System Plan Update – Phase 1
- Process 2017 Regional Air Passenger Survey, Phase 1

TOTAL COST ESTIMATE

\$362,253

The purpose of the CASP program is to provide a regional process that supports the planning, development and operation of airport and airport-serving facilities in a systematic framework for the Washington-Baltimore Air Systems Planning Region, which includes the region's three major commercial airports: Baltimore-Washington International Thurgood Marshall Airport (BWI), Ronald Reagan Washington National Airport (DCA), and Washington Dulles International Airport (IAD). Oversight of the program is the responsibility of the TPB Aviation Technical Subcommittee. The major elements of the CASP program have now been consolidated into a reoccurring two-year cycle based on available and anticipated FAA funding. The CASP work program elements for the for FY 2018 UPWP cycle are as follows:

Comprehensive Regional Air System Plan Update – Phase 1

The regional CASP program began with the landmark 1975 study “The Future of Washington’s Airports,” which built the foundation for what the program has evolved into today. There has not been a fully comprehensive Regional Air System Plan (RASP) update since the initial 1975 study. Instead, there have been incremental updates over multiple plan volumes in 1988 (Volume I: Commercial Airports), 1993 (Volume II: Ground Access), and 1997 (Volume III: Air Cargo). Following those larger volumes, each document completed in the CASP program (Air Passenger Survey General Findings and Geographic Findings Reports, Ground Access Forecast Update, Ground Access Element Update, Ground Access Travel Time Update, and Air Cargo Element Update) has served as a series of continual, smaller, incremental updates or amendments to the RASP.

While these incremental amendments serve to ground the continuous and coordinated nature of the air systems planning program, they lack the comprehensiveness to meet the spirit of the “3Cs” that have guided metropolitan transportation planning since the process was formalized by the Federal government during the 1960s. Furthermore, the regional surface transportation plan, known as the Constrained Long Range Plan (CLRP), undergoes annual incremental updates and a major update every four years. While frequent incremental updates are necessary due to limited resources and the most effective way of maintaining a continuous planning program, after more than 40 years the air systems planning region and the nature of air travel has changed so significantly that a comprehensive regional air system plan update is required.

Resource limitations mean the RASP update will be spread over three phases (review of previous plans and complementary airport plans and review of state of the practice in regional air system planning, documentation of existing conditions and needs assessment, and forecasts and future planning recommendations), but will result in a single comprehensive document at the end of the process. Phase 1 of the comprehensive RASP update is a review of previous and recent planning efforts and determination of the state of the practice in regional air system planning through a national literature review.

Process 2017 Regional Air Passenger Survey, Phase 1

The purpose of the Regional Air Passenger Survey is to collect information about travel patterns and user characteristics of air passengers using the three major commercial airports – Ronald Reagan Washington National Airport (DCA), Washington Dulles International Airport (IAD), and Baltimore-Washington International Thurgood Marshall Airport (BWI) – and to help determine airport terminal and groundside needs. Data from the air passenger surveys provide the basis for analysis of major changes in airport use in the region. Funding for survey design, sample generation and data collection for the 2017 Regional Air Passenger Survey will be requested from the Metropolitan Washington Airports Authority (MWAA) and the Maryland Aviation Administration (MAA) of the Maryland Department of Transportation (MDOT). The processing of the data collected in the 2017 Regional Air Passenger Survey will be carried out in this UPWP project. Specific tasks to be undertaken in Phase 1 include: (1) data editing, (2) finalizing the survey database, and (3) producing the survey General Findings Report.

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**IV. PROPOSED FY 2017 STATE TRANSPORTATION
AGENCY STATE PLANNING AND RESEARCH
PROGRAMS (SPR)**

DRAFT

District of Columbia Department of Transportation (DDOT)

ADMINISTRATIVE AND FINANCIAL MANAGEMENT

Responsible for the management and operation of Federal and Local funds allocated to the District State Planning and Research (SPR) Work Program. Provide oversight to ensure planning activities are in compliance with Federal laws, regulations and policies. Ensure timely submission of all required reports.

STRATEGIC PLANNING

Develop plans and policies to improve citywide transportation systems and services; improve system performance with efficiency and safety for multi-modal users; coordinate the implementation of ongoing transportation planning activities including multimodal studies, parking, freight, transit, and highway safety; and develop and implement the Transportation Improvement Plan and State Transportation Improvement Plan.

SYSTEM PLANNING

Examine transportation projects and zoning plans to ensure they are consistent with, and do not adversely impact DDOT's multimodal strategic objectives and the Transportation Element of the Comprehensive Plan. Coordinate with local and federal agencies on the development of major projects and provide guidance on public space policy and continue to see major land development activity adjacent to the Federal-Aid Highway network.

ACTIVE TRANSPORTATION PROGRAM MANAGEMENT

Develop policies, plans and programs to encourage the reduction of single occupant vehicle travel; promote bicycle and pedestrian facilities and programs to encourage non-vehicular methods of commuting; promote safe and convenient bicycling, walking, and public transit; and reduce the number of pedestrian injuries and fatalities in crashes and motor vehicles.

PROJECT DEVELOPMENT AND ENVIRONMENT

Provide oversight for all environmental and project development processes and ensure DDOT is in compliance with all federal-aid requirements, laws and regulations.

DATA COLLECTION, ANALYSIS AND DISSEMINATION

Ensure the collection of data for functional classification of local highway systems and mileage certification reporting.

TRAFFIC SAFETY DATA COLLECTION

Manage the collection of transportation data on city streets and highways to improve and incorporate safety controls; and manage the collection of traffic data, volume counts, and turning movement counts.

METROPOLITAN PLANNING

Describes the regional transportation planning and special technical assistance projects proposed to be undertaken July 1, 2017 through June 30, 2018 by COG/TPB staff in cooperation with state and local agencies and WMATA.

PROGRAM FUNDING

The FY 2018 SPR Program funding is under development. The FY2017 budget is \$3,077,292 (Federal = \$2,461,834 and District = \$615,458).

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Maryland Department of Transportation (MDOT) Maryland State Highway Administration (MDSHA)

SYSTEMS AND PROGRAMMING

- Preparation and development of the six-year Consolidated Transportation Program and Preparation of the Annual Statewide Transportation Improvement Program
 - Develop the FY 2018-2023 CTP.
 - Coordinate with appropriate State and local planning staffs, MPOs and State, county and municipal elected officials.
 - Prepare presentation materials for the annual tour.
 - Prepare and submit an annual program for use of available federal funds in accordance with Title 23 U.S.C. and the FAST Act.
 - Coordinate the STIP with the regional TIPs, CTP and local jurisdiction's highway improvement programs
- Local Government Liaison
 - Coordinate between all levels of Federal, State, and local governments to ensure that transportation plans are compatible.
 - Review agency and local programs/plans via the state Clearinghouse process.
 - Coordinate and review county and municipal master plans.
 - Assess transportation impacts of proposed major development.
- Long Range Planning
 - Update the Highway Needs Inventory (HNI).
 - Evaluate long-term highway needs and investment levels for various program categories and sub-categories.
 - Review and provide input on updates to the statewide long range plan and
 - Annual Attainment Report on Transportation System Performance.

TRAFFIC

Traffic Monitoring Program

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

Metropolitan Planning Organization Liaison (Urbanized Areas)

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

Highway Statistics

- Mileage – Federal Aid System
 - Develop new Federal Functional Classification and NHS maps and mileage tables for approval and distribution.
 - Update and maintain statistical records summary tables.
- State and Local Highway, Data Collection, Analysis and Distribution
 - Solicit receive and process reports from local jurisdictions regarding road improvements, mileage, etc.
 - Collect, update and maintain data used for the Universe portion of the HPMS submission.
 - Update and maintain the highway information databases to meet on-going state and federal requirements.
 - Provide data used for the update of SHA's maps.

Highway Performance and Monitoring System (HPMS)

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

Special Studies – Preliminary Studies

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

MDOT State Highway Administration FY 2017 State Planning & Research Program Elements Supporting the Washington Area Work Program	
ITEM	AMOUNT
Systems & Programming	
CTP	\$ 227,339
Local Government Liaison	\$ 148,500
Long Range Planning	\$ 27,000
Traffic Monitoring Program	\$ 711,689
MPO Liaison	\$ 27,000
Highway Statistics	\$ 323,954
Special Studies	\$ 108,000
TOTAL	\$ 1,573,482

Virginia Department of Transportation (VDOT)

SPR FUNDS FOR DISTRICT PLANNING ANNUAL ACTIVITIES

Metropolitan Planning Support Activities

This element represents the various activities undertaken by NoVA District Planning and Investment Management staff (with support from the VDOT Central Office staff as needed) in the development and implementation of the various elements/work tasks in the MPOs FY 2017 Unified Planning Work Program (UPWP) and the annual work program of the Metropolitan Washington Air Quality Committee and the regional Climate, Energy, Environment Policy Committee. Planned work items, to be conducted mostly by in-house staff, include:

- The Department's participation in all work activities associated with the work programs of the: (a) Transportation Planning Board (TPB), (b) Metropolitan Washington Air Quality Committee (MWAQC), (c) Climate Energy, Environment Policy Committee (CEEPC); and Multi- Sector Green House Gas Working Group.
- Oversight of the TPB/MWCOG activities such as: development/update of the CLRP, TIP, regional air quality conformity analysis, regional Freight plan, Congestion Management Program report, Commuter Connections program and other regional studies undertaken by the MPO (e.g., Household Travel Survey, State of the Commute Survey, Modeling).
- Regional air quality planning related activities undertaken by MWAQC and CEEPC include: development of PM2.5 Maintenance Plan, Ground level Ozone NAAQS Attainment SIP, Clean Air Partners program, voluntary action to help reduce regional Greenhouse gases.

Statewide Planning Support Activities

This element of the SPR work program provides for staffing within the NoVA District Planning section to participate in and provide assistance to TMPD and other sections within the Department and the local agencies in a variety of tasks including:

Corridor and sub-area studies to identify either multi-modal or mode specific improvements to the transportation system addressing specific congestions / mobility challenges in the near, mid or long term. Examples of such studies currently underway in FY 2017 include: NoVA Significant Projects Ratings Study (HB 599); Fairfax County Parkway corridor Improvements Study (Phase 1); STARS Program Route 7 Corridor Improvement study, STARS Program Liberia Avenue Corridor Improvement Study.

- Provide inputs and review of the findings and recommendations for the State LRP (VTRANS); assist with development and implementation of the Smart Scale Project Prioritization process;
- Regular and ongoing update of the Statewide Planning System inventory and traffic forecasts;
- Provide a dedicated full time Bicycle and Pedestrian Coordinator;
- Provide input and review of federal functional classification updates; and
- Provide assistance with General Assembly legislative impact statements and studies.

Project Development Support Activities

This element of the SPR work program represents the District Planning section staff working to:

- Prepare and/or review traffic forecasts for project design (LD-104) and environmental documents (Project level conformity analysis for Noise, Air and other pollutants for NEPA documents)
- Conduct and/or assist in the conduct of transportation planning studies initiated by VDOT and/or localities such as Comprehensive Plan updates, Transit Development Plan studies, corridor and sub area studies. etc.
- Participate in the development and/or review of the traffic forecasts for IMR and IJR as developed for/by the VDOT PE and/or L&D sections of the District;
- Review and comment on various Environmental Impact Reports received by the district as part of VDOT's role in Inter-agency consultation process.
- Assist the Transportation and Land Use directors in the review and planning of project activities such as location and design of Park and Ride lots.

Local Planning Activities

This element outlines activities undertaken by the District Planning section staff to assist the planning activities at the locality level.

- Locally prepared transportation studies: Participate in discussions on the scope of work for the conduct of Traffic Impact Analysis (TIA) reports by localities in response to proposed Comprehensive Plan / Master Plan amendment / Small Area Plans; review and comment on TIAs and/or CTIAs submitted by the localities to VDOT in part complying with the requirements of VA Code chapter 870.
- Assist in the development of the transportation portion of local comprehensive/master plans as needed
- Provide transportation technical assistance to localities including in the development of travel demand models; applying travel demand model for project and/or locality planning levels.

SPR FUNDS FOR SPECIAL STUDIES TO BE CONDUCTED BY CONSULTANTS OR ENTITIES OTHER THAN DISTRICT STAFF (LIST EACH STUDY INDIVIDUALLY)

The District is using \$500,000 in FY 2017 for the second round of the HB-599 Significant Project Evaluation Process. In September 2013, the Virginia Department of Transportation (VDOT), in coordination with the Commonwealth Transportation Board (CTB), the Department of Rail and Public Transportation (DRPT), and the Northern Virginia Transportation Authority (NVTA) initiated a study to evaluate and rate up to 40 significant transportation projects in and near the Northern Virginia Transportation District (NOVA District). The study was mandated by legislation passed by the Virginia General Assembly in 2012 (Code of Virginia, Section 33.1-13.03:1).

The Project Rating Process must occur at least every 4 years; however VDOT is committed to evaluate and rate a second round of projects within the next two years. The first round of project evaluations was completed on December 31, 2014, and project ratings were posted on the project website. The ratings are now being used as part of NVTA's project selection and funding process. Each of the 40 project's evaluation and rating were based on the project's expected ability to reduce

congestion, and to the extent possible, the project's expected ability to improve regional mobility during a homeland security emergency. The first evaluations included highway and technology projects. Transit projects will be evaluated and rated in the second round.

Recently, the General Assembly added a legislative requirement to evaluate and rate transit projects using the same methodology applied to highway projects in the first round of analysis. Working with DRPT and NVTA, VDOT has completed test runs of selected transit projects to assess the model's capability with respect to transit projects and their impact on congestion. The second round of HB 599 ratings are being developed with the inclusion of mass transit projects.

In FY 2018 VDOT will work with the consultant to transition the modeling tool to the NVTA to perform the ratings. VDOT will review the ratings to ensure consistency with HB 599 legislation.

The remaining funds for FY 2017 will be used in FY 2018 and will cover partial costs of the Project Manager's salary and work performed by consultants. The District is using on-call consultant to perform two studies under the Strategically Affordable Roadway Solutions (STARS) program to identify short and medium term improvements to the Route 7 corridor west of the Dulles Greenway and Liberia Avenue in City of Manassas. The recommendations from the studies will be used to develop projects for implementation using Smart Scale rating.

DRAFT

V. APPENDIX

MEMORANDA OF UNDERSTANDING

- Fredericksburg Area Metropolitan Planning Organization (FAMPO)
- Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO)

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