

# UNIFIED PLANNING WORK PROGRAM

FY 2020 - **DRAFT**

Unified Planning Work Program (UPWP) for Transportation Planning for the  
Washington Metropolitan Region for FY 2020

March 2019

## **UNIFIED PLANNING WORK PROGRAM (UPWP): FY 2020**

*The preparation of this program document was financially aided through grants from the District Department of Transportation, Maryland Department of Transportation, Virginia Department of Transportation, and the U.S. Department of Transportation.*

### **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 National Capital Region Transportation Planning Board (TPB) is responsible for the federally required metropolitan transportation 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 FY 2020 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, 2019 through June 30, 2020. The UPWP provides a mechanism for the coordination of transportation planning activities conducted by the 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 to receive FHWA and FTA funds.

This work program describes all transportation planning activities utilizing federal funding, including FHWA metropolitan planning funds (PL Funds) and FTA Section 5303 metropolitan planning funds. The Federal Aviation Administration Continuing Airport System Planning (CASP) program is a separate grant and is included for informational purposes as the TPB is responsible for grant implementation. 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.

## Planning Requirements

The planning activities outlined in this work program respond to a variety of regulatory requirements. On May 27, 2016, the FHWA and 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 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 complies with the requirements regarding metropolitan planning.

On October 17, 2018, the TPB approved Visualize 2045, the long-range transportation plan for the National Capital Region, and the FY 2019-2024 Transportation Improvement Program (TIP). In December 2018, FHWA and FTA found that Visualize 2045 and FY 2019-2024 TIP conform to the region's State Implementation Plans.

On October 17, 2018, 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 being conducted by the TPB is addressing the major issues in the metropolitan planning area and is being carried out in accordance with all applicable federal metropolitan planning requirements as described under 23 CFR 450.336. The Self-Certification Statement is signed by the three state DOTs and the TPB.

**The Self Certification Statement can be found here:**

In December 2018, FHWA and FTA jointly certified that the TPB's planning process complies with metropolitan planning regulations and issued a certification report. On October 28-29, 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 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 next certification review will be conducted in Spring 2019 and will conclude in June 2019.

The TPB will continue its rich tradition of coordination with adjacent MPOs and with those MPOs with which it shares DOTs. The TPB will not only continue to coordinate but will look to enhance all coordination opportunities. TPB is involved in the statewide MPO planning efforts in both Maryland and Virginia. TPB participates in the Maryland MPO Roundtable meetings, which occur 4 times a year. TPB is an active participant and a voting member of the Virginia Association of Metropolitan Planning Organizations (VAMPO). TPB staff served as the VAMPO Vice Chair in FY 2019.

## **THE CLEAN AIR ACT**

The Clean Air Act Amendments (CAAA) of 1990 require that the transportation actions and projects in the metropolitan transportation plan (LRP) and Transportation Improvement Program (TIP) support the attainment of federal health standards for ozone. The LRP and TIP must 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 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 high and 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 Transportation Planning. Engaging transportation disadvantaged-populations, primarily through the Access for All Advisory Committee, is found in Activity 4: 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](http://www.mwcog.org/nondiscrimination).

On July 13, 2018, 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, 2021. The Maryland Department of Transportation (MDOT) also conducted a site visit and approved the Title VI Plan on **January 5, 2017**.

## Federal Requirements for Performance-Based Planning and Programming

MAP-21 and the FAST Act call for metropolitan planning organizations, public transportation providers and states **to establish and use a performance-based approach to transportation decision making**. 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 has been and will continue to 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 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. The approved plan and TIP are compliant with these new requirements.

## Regional Planning Goals

In 1998, the TPB adopted the TPB Vision, which outlines a set of policy goals that have since served to guide the TPB's planning work program:

- 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.

These goals are broad in scope, and together with the strategies and objectives that are also outlined in the TPB Vision, provide a framework for setting out core principles for regional transportation planning. TPB Vision's policy goals encompass the ten planning factors required under the planning process of MAP-21 and are considered when developing the metropolitan transportation plan. 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 for inclusion in the CLRP. In FY 2017, the Priorities Plan will influence policy actions, funding strategies, and potential projects considered for incorporation into Visualize 2045.

In 2017, the TPB established the Long-Range Plan Task Force, who engaged in a sketch planning effort to identify initiatives that could help the region achieve these goals. At that time, TPB Members had decided that the previous long-range plan did not show satisfactory performance compared to current conditions, nor did it bring us close enough to reach these regional planning goals. In December 2017 and January 2018, the TPB endorsed seven aspirational initiatives recommended

by the Long-Range Plan Task Force which have potential to significantly improve the performance of the region's transportation system compared to current plans and programs. These seven aspirational initiatives are included in Visualize 2045, calling upon member jurisdictions and agencies to plan for and implement these initiatives that will help bring the region closer to reaching its goals.

## Responsibilities for Transportation Planning

The National Capital Region Transportation Planning Board (TPB) is the official metropolitan planning organization (MPO) for the National Capital Region and is responsible for conducting a continuing, cooperative, comprehensive (3-C) metropolitan transportation planning process. The TPB was designated as the region's MPO by the governors of Maryland and Virginia and the mayor of the District of Columbia.

The TPB is composed of representatives from the 24 cities and counties, including the District of Columbia, that are members of the Metropolitan Washington Council of Governments (COG), the three state-level 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 importance are before the TPB, a special voting procedure may be invoked that weights the votes of local jurisdiction members according to population.

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. Figure 1 lists the jurisdictions and organizations represented on the TPB and its technical committees and subcommittees. Figure 2 shows the geographic location of each of the local member jurisdictions.

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 metropolitan 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 metropolitan Washington, 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 planning regulations, the TPB, the state DOTs, and the public transportation operators have documented their transportation planning roles and responsibilities in an agreement that was executed by all parties in April 2018. To meet Performance-Based Planning and Programming provisions, the TPB and individual stakeholders have documented their roles and responsibilities in Letters of Agreement (LOAs) that respond to each required performance area: Highway Safety, Highway and Bridge Condition, and System Performance (Congestion, Freight, and CMAQ). The current agreement is included in the Appendices and the responsibilities for the primary planning and programming activities are indicated in Figure 3.

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 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, Maryland, 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.

A list of transportation planning studies to be conducted within the National Capital Region can be found in Figure 4.

**Figure 1: Jurisdictions and Organizations Represented on the TPB and its Technical Committees and Subcommittees**

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

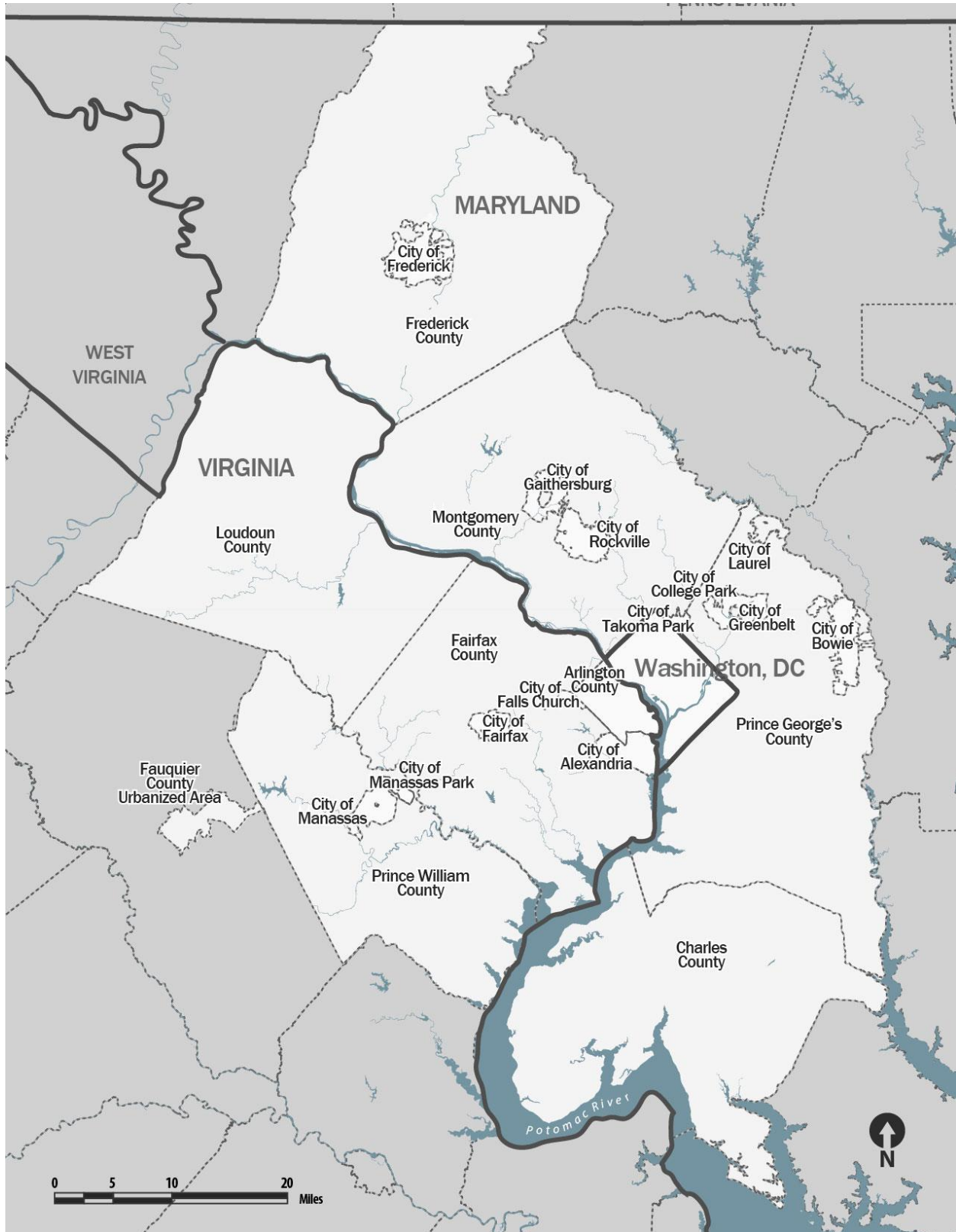
**DISTRICT OF COLUMBIA**

District of Columbia Council  
District of Columbia Department of Transportation  
District of Columbia Office of Planning

**REGIONAL, FEDERAL, AND PRIVATE SECTOR**

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

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





**Figure 3: Transportation Planning and Programming Responsibilities**

<b>RESPONSIBILITY</b>	<b>AGENCIES</b>
<b>UPWP Development</b>	TPB, DOTs, WMATA, Local Governments
<b>Planning Certification</b>	TPB, DOTs
<b>Performance-Based Planning</b>	TPB, DOTs, WMATA, Public Transportation Providers
<b>Visualize 2045 Development</b>	
Air Quality Conformity	TPB, FAMPO
Congestion Management Process	TPB, DOTs, Local Governments, FAMPO
Environmental Consultation	TPB, DOTs, Local Governments
Financial Element	TPB, DOTs, WMATA, Local Governments
Freight Element	TPB, DOTs, Local Governments
Participation Plan	TPB
Performance Based Planning and Programming	TPB, DOTs, WMATA, Public Transportation Providers
Plan Inputs/Update	DOTs, WMATA, Local Governments, NVTA, PRTC, FAMPO
Project Selection	TPB, DOTs, WMATA, Local Governments
Safety Element	TPB, DOTs, Local Governments
Transportation/Land-Use Planning	TPB, MDPC, Local Governments
<b>TIP Development</b>	
TIP Inputs	DOTs, WMATA, Local Governments, NVTA, PRTC
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
Project Selection	TPB, DOTs, WMATA
Projects Federal Funding	TPB, DOTs, WMATA
Public Involvement Plan	TPB
<b>Air Quality 2010 Attainment Plan</b>	MWAQC, TPB, DOTs
CO2 Mobile Emissions Reduction	WMATA, State Air Quality Agencies
<b>Climate Change Adaptation</b>	TPB, DOTs, WMATA, Local Governments
<b>Corridor Studies</b>	DOTs, WMATA, TPB
<b>Travel Demand Forecasting</b>	TPB
<b>Travel Monitoring</b>	TPB, DOTs, WMATA, Local Governments

**Figure 4: Transportation Planning Studies within the National Capital Region, 2018**

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
<b>REGIONAL</b>			
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
Bus Transformation Project: Metrobus Strategy and Roadmap	WMATA	2019	Plan
Flexible Metrorail Operational Analysis	WMATA	2019	Study, Plan
Blue/Orange/Silver Corridor Capacity & Reliability Alternatives Analysis	WMATA	2020	NEPA - scoping
D&G Junction Pocket Track Extension Project Development	WMATA	2021	Plan, Construction Package
SmarTOD (TOD planning online tool)	WMATA	2020	Model/Data tool
Bus-Oriented Development Study	WMATA	2021	Study
Applied Planning Intelligence Data Analysis Support Platform	WMATA	Develop 2020; ongoing	Data tool
Electric Bus Implementation Alternatives Analysis	WMATA	2020	Study, NEPA scoping
MARC/VRE D.C. Run-through Latent Demand Study	MWCOG, MDOT MTA, VRE	2019	Report

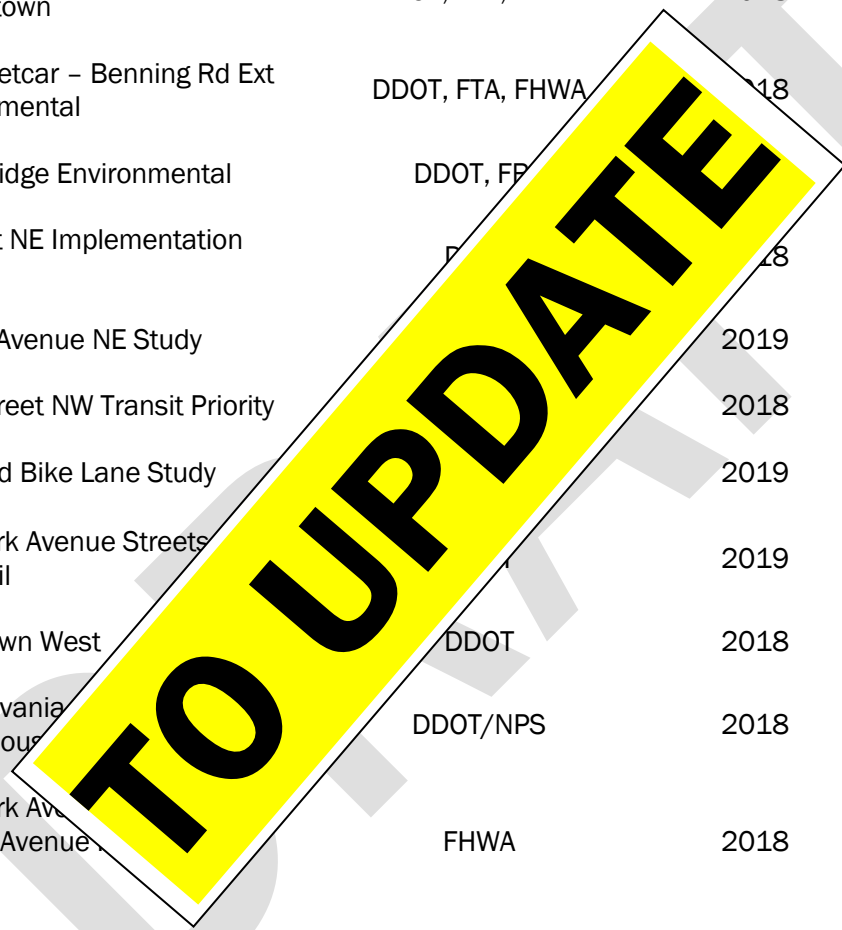


**Figure 4: Transportation Planning Studies within the National Capital Region, 2018**

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
<b>MARYLAND</b>			
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	On-hold	DEIS
MD 28/MD 198 Corridor Study (MD 97 to I-95)	MDOT SHA	2019	EA
MD 97 Montgomery Hills Study (MD 390 to MD 192)	MDOT SHA	2019	CE
MD 223 Corridor Study (Steed Road to MD 4)	MDOT SHA, Prince George's County	On-hold	TBD
US 15/US 40 Frederick Freeway Study	MDOT SHA	2020	TBD
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	2020	TBD
Bus Cornerstones Plan	MDOT MTA	2017	Plan
MARC Cornerstones Plan	MDOT MTA	2019	Plan

**Figure 4: Transportation Planning Studies within the National Capital Region, 2018**

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
<b>DISTRICT OF COLUMBIA</b>			
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	2018	NEPA
DC Streetcar – Benning Rd Ext Environmental	DDOT, FTA, FHWA	2018	EA
Long Bridge Environmental	DDOT, FTA	2018	NEPA
C Street NE Implementation Study	DDOT, FTA	2018	Design
Florida Avenue NE Study	DDOT	2019	Design
16th Street NW Transit Priority	DDOT	2018	Design
East End Bike Lane Study	DDOT	2019	Design
New York Avenue Streets and Trail	DDOT	2019	Study
Downtown West	DDOT	2018	Study
Pennsylvania White House	DDOT/NPS	2018	Study
New York Ave Dakota Avenue Study	FHWA	2018	Study
Alabama Avenue Safety Study	DDOT	2018	Tactical Urbanism
Long Term Safety & Geometric Improvements	DDOT	2018	EA
Section 5304 Transit Asset Management Study	DDOT	2018	Study
Rock Creek East Livability Study	DDOT	2018	Study



**Figure 4: Transportation Planning Studies within the National Capital Region, 2018**

STUDY	PRIMARY AGENCIES	SCHEDULE	PRODUCTS
<b>VIRGINIA</b>			
STARS Route 50 Corridor Improvement Study	VDOT	2019	Report
Route 28 Corridor Environmental Documentation	Prince William County / VDOT	Ongoing	EA/FONSI
Buckland Study	Prince William County	2018	Improvement Options/Report
I-495 Express Lanes Extension to American Legion Bridge	VDOT	2019	Study
Arlington Master Transportation Plan Bike Element Update	Arlington County		Plan
Rosslyn Street Network Study	Arlington County		Study
Courthouse Square Shared Streets Study	Arlington County		Study
Wilson Blvd. Road Diet Follow-up Study	Arlington County	On hold	Study
Public Open Spaces Master Plan	Arlington County		Plan
Arlington General Land Use Plan Amendment Study	Arlington County		Study
Four Mile Run Valley Area Study	Arlington County		Study
Lee Highway Corridor Study	Arlington County		Study
Growth Factor Evaluation Task	VDOT	2019	Ratings
Rollins Ford Road Study	VDOT/Prince William County	2019	Study
SMART Scale Project Evaluations	VDOT	2019	Ratings
Route 28/Dulles Toll Road/Dulles Greenway Traffic Operations & Safety Study	VDOT	2019	Study
Future Round of STARS Studies	VDOT	2019	Study

**Figure 4: Transportation Planning Studies within the National Capital Region, 2018**

<b>STUDY</b>	<b>PRIMARY AGENCIES</b>	<b>SCHEDULE</b>	<b>PRODUCTS</b>
SafeTrack	WMATA	2019	Study
I-66 Outside the Beltway Transit/TDM Plan Update	DRPT	2019	Plan

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## FY 2020 Regional Planning Priorities

In March 2015, 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 planning and programming was provided earlier in this Introduction. This transition is an articulated priority of the TPB as demonstrated in “Activity 3: 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.

As included in the Metropolitan Planning Agreement (3C Agreement) approved by the Transportation Planning Board on April 18, 2018, in accordance with the latest federal metropolitan planning requirements as adopted in the FAST Act, the TPB’s TIP includes a description of how the investments in the TIP make progress toward achievement of the targets in the Plan.

The TIP includes funding under the Highway Safety Improvement Program for priority HSIP projects as programmed by the three states. Examples of HSIP programmed projects include impact attenuators, guardrails, upgrading traffic signal devices, work zone safety reviews, and improved signs and markings. The three states have processes for inclusion of safety-related projects as identified in their Strategic Highway Safety Plans and other state plans and documents. Safety improvements are also included within projects funded with non-HSIP funds and through other state and federal sources, such as the Transportation Alternatives Program Block Grants, including Safe Routes to School grants, and CMAQ and maintenance projects, all of which will provide benefits that contribute to improved safety performance. Thus, the funding and the program of projects in the TIP will enable the TPB to achieve the region’s safety performance targets.

The TIP includes funding from multiple FTA sources for projects that support Transit Asset Management. Examples of these projects include rural and urban capital assistance programs; rolling stock acquisition, maintenance, and overhauls; bus fleet rehabilitation and replacement; track and rail yard maintenance and improvements; and maintenance of passenger facilities. Each of the three states and WMATA have adopted Transit Asset management plans which are included in their respective STIPs. Transit Asset Management category projects are also supported by non-FTA sources such as state and local funding, WMATA Insurance Proceeds, and flexible CMAQ and STP funding. The funding and the program of projects in the TIP will enable the TPB to achieve the region’s transit asset management performance targets.

## **PROMOTE VISUALIZE 2045 ASPIRATIONAL INITIATIVES**

In December 2017 and January 2018, the TPB endorsed seven aspirational initiatives recommended by the Long-Range Plan Task Force with the potential to significantly improve the performance of the region's transportation system. These seven aspirational initiatives are included in Visualize 2045 as the aspirational element, calling upon member jurisdictions and agencies to plan for and implement these initiatives that will help bring the region closer to reaching its goals.

## **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 Virginia, Maryland, and the District of Columbia, notably in the development of performance measures and targets, the unfunded regional priority projects, MATOC, congestion management, safety, public transportation, and freight. The TPB coordinates with MPOs near its planning area, such as FAMPO, the Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO), and the 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."

TPB is involved in the statewide MPO planning efforts in both Maryland and Virginia. TPB participates in the Maryland MPO Roundtable meetings, which occur 4 times a year. The Commonwealth of Virginia General Assembly established the Virginia Association of Metropolitan Planning Organizations (VAMPO) effective July 1, 2009, through House Joint Resolution No. 756 to provide education, information and opportunities for cooperation among Virginia's Metropolitan Planning Organizations and among state, federal and community officials. TPB is an active participant and a voting member of VAMPO. VAMPO's mission is "Moving Virginia forward by enhancing, promoting, and supporting the regional transportation planning process of the Commonwealth's MPOs." TPB staff currently serves as the Vice Chairman of VAMPO.

The TPB's 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 governors of Maryland and 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 December 2018. 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, which provide key access to essential services such as health care, education, employment, and recreation.

In FY 2016, an expanded analysis of the long-range transportation plan identified potentially vulnerable populations, called Equity Emphasis Areas. The TPB's efforts to develop a list of unfunded regional priority projects includes 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 MAP-21 and the FAST Act. For 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. 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.





## II. PROPOSED FY 2020 TPB WORK PROGRAM AND BUDGET

### Program Structure

The TPB is responsible for the federally required metropolitan transportation 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 order of the tasks is deliberate with the federal regulatory requirements identified most prominently followed by the subsequent tasks providing support for elements of those requirements.

#### 1. LONG-RANGE TRANSPORTATION PLANNING

The first major activity, **Long-Range Transportation Planning**, includes activities related to Visualize 2045, activities to maintain federal compliance, and activities to implement policy board directed activities. Visualize 2045 identifies all regionally significant transportation investments planned through 2045 and provides detailed analysis to help decision makers and the public “visualize” the region’s future under current plans. Visualize 2045 was approved in October 2018, and strategic implementation including a focus on the aspirational element is underway. Additional analysis to support and enhance plan components and other federal requirements will be undertaken as necessary. Work will also begin to plan for the 2022 quadrennial update of the plan.

#### 2. TRANSPORTATION IMPROVEMENT PROGRAM

The second major activity, the **Transportation Improvement Program (TIP)**, provides support to update, amend, modify, and enhance the TPB’s TIP. The FY 2021-2027 TIP will be produced and approved. In FY 2019, TPB procured a consultant to develop a new iTIP Database which provides a complete upgrade and overhaul to the project database information system. In FY 2020, we will continue to develop and transition to a new long-range plan, TIP project, and conformity record database, including a GIS database.

#### 3. PLANNING ELEMENTS

The third major element, **Planning Elements**, considers the following aspects of metropolitan transportation planning, and their support of regional long-range transportation plan and program development, in conjunction with federal FAST and MAP-21 requirements:

- Performance-Based Planning and Programming;
- Regional congestion management process (CMP);

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

A key objective is to provide opportunities for regional consideration, coordination, and collaborative enhancement of planning for each of these elements. Also included for all elements will be outreach to members, stakeholders, and subject matter experts, to gather information to advise future planning and committee activities.

#### 4. PUBLIC PARTICIPATION

The fourth major activity, **Public Participation**, 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 metropolitan transportation plan, TIP, and all other TPB activities.

#### 5. TRAVEL FORECASTING

The fifth major activity, **Travel Forecasting**, pertains to the maintenance and refinement of the TPB's travel demand forecasting methods. It includes the preparation of inputs to the existing travel demand model and on-going development activities that will support the phasing of next-generation travel forecasting techniques into practice.

#### 6. MOBILE EMISSIONS PLANNING

The sixth major activity, **Mobile Emissions Planning**, includes the maintenance and application of the existing TPB travel demand model and EPA Motor Vehicle Emissions Simulator (MOVES) model used to forecast air pollution emitted by on-road vehicles. This activity includes the technical air quality conformity analysis of the long-range transportation plan and TIP as well as related technical work supporting state environmental planning activities.

#### 7. TRAVEL MONITORING AND RESEARCH PROGRAMS

The seventh major activity, **Travel Monitoring and Research Programs**, provides empirical travel information from traffic counts, high occupancy vehicle (HOV) monitoring, regional travel surveys and other travel trend analysis activities. This activity includes GIS technical support for all planning activities across the department and maintenance of the Regional Transportation Data Clearinghouse.

## 8. SCENARIO PLANNING AND SOCIOECONOMIC FORECASTING

The eighth major activity, **Scenario Planning and Socioeconomic Forecasting**, includes activities to develop the tools necessary for conducting scenario planning analysis. This activity also entails coordinating local, state, and federal planning activities to integrate land use and transportation planning in the region.

## 9. MOBILITY AND ENHANCEMENT PROGRAMS

The TPB solicits and selects projects for three programs. The ninth major activity, **Mobility and Enhancement Programs**, captures the efforts involved in soliciting and selecting projects for the FTA “Section 5310: Enhanced Mobility of Seniors and Individuals with Disabilities” program, the FHWA Transportation Alternatives Set-Aside Program (TAP), and the TPB’s Transportation Land-Use Connections Program (TLC).

## 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**, 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.

## CONTINUOUS AIRPORT SYSTEM PLANNING (CASP)

Finally, **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 2019 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. A detailed breakdown of staffing, consultant costs, and other budgetary requirements is provided in Table 3. The TPB committee structure is shown in Figure 6. The TPB committee or sub-committee responsible for the activities listed in Figure 5 are shown under the descriptions for each task in Section III. Figure 7 illustrates the relationship between and among the TPB work activities.

**Table 1: Revenue - FY 2020 TPB Proposed Funding by Federal, State, and Local Sources**  
 (July 1, 2019 to June 30, 2020)

	FTA SECT 5303 80% FED & 20% STA/ LOC	FHWA PL FUNDS 80% FED & 20% STA/ LOC	FAA CASP  90% FED & 10% LOC	TOTALS
<b>DDOT - ALLOCATIONS</b>				
NEW FY 2020	\$538,004	\$2,299,564	\$0	\$2,837,568
PRIOR UNEXPENDED	\$123,669	\$525,112	\$0	\$648,781
CARRYOVER FY 2019	Anticipated in Feb. 2019		\$0	
SUBTOTAL - D.C	\$661,673	\$2,824,676	\$0	\$3,486,349
<b>MDOT - ALLOCATIONS</b>				
NEW FY 2020	\$1,342,639	\$3,845,380	\$0	\$5,188,019
PRIOR UNEXPENDED	\$334,617	\$1,008,369	\$0	\$1,342,986
CARRYOVER FY 2019	Anticipated in Feb. 2019		\$0	
SUBTOTAL - MD	\$1,677,256	\$4,853,749	\$0	\$6,531,005
<b>VDRPT &amp; VDOT - ALLOCATIONS</b>				
NEW FY 2020	\$1,122,250	\$3,245,898	\$0	\$4,368,148
PRIOR UNEXPENDED	\$264,497	\$790,064	\$0	\$1,054,561
CARRYOVER FY 2019	Anticipated in Feb. 2019		\$0	
SUBTOTAL - VA	\$1,386,747	\$4,035,962	\$0	\$5,422,709
<b>TOTAL FHWA/FTA FUNDING ALLOCATIONS</b>				
SUB-TOTAL NEW FY 2020	\$3,002,893	\$9,390,842	\$0	\$12,393,735
SUB-TOTAL PRIOR UNEXPENDED	\$722,783	\$2,323,545	\$0	\$3,046,328
SUB-TOTAL CARRYOVER FY 2019	Anticipated in Feb. 2019		\$0	
<b>TOTAL BASIC UPWP</b>	<b>\$3,725,676</b>	<b>\$11,714,387</b>	<b>\$0</b>	<b>\$15,440,063</b>
Continuous Air System Planning (CASP)			\$350,000	\$350,000
<b>GRAND TOTAL UPWP</b>	<b>\$3,725,676</b>	<b>\$11,714,387</b>	<b>\$350,000</b>	<b>\$15,790,063</b>

"New FY2020" funding amounts above are tentitively assumed same as in FY 2019 UPWP.

"Prior Unexpended funds" are funds that were budgeted yet unspent in FY 2018.

"Carryover FY2019 funds" are funds budgeted for Core and Technical Assistance work program activities in FY 2019 UPWP, that are not anticipated to be spent in FY 2019. As such these funds were carried over from FY 2019 to be used to perform Core program and Tech. Assistance activities in FY 2020.

**Table 2: FY 2020 UPWP Expenditures**

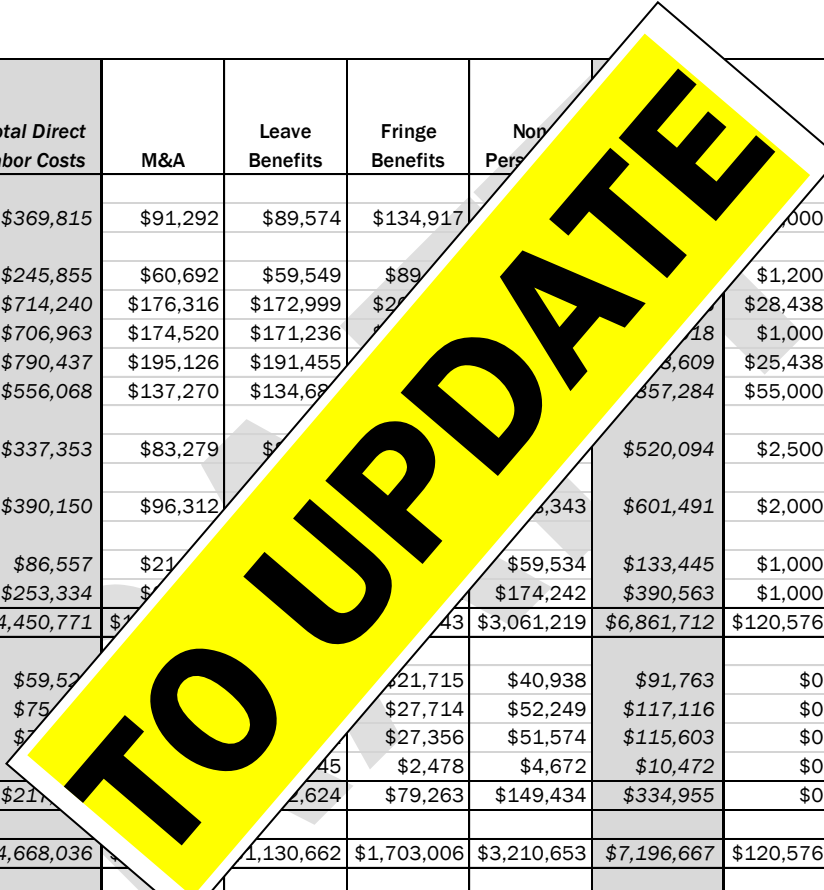
<b>WORK ACTIVITY</b>	<b>FY 2018 TOTAL</b>
<b>A. CORE PROGRAMS</b>	
1. Long-Range Transportation Planning	Under development
2. Transportation Improvement Program	As above
3. Planning Elements	As above
4. Public Participation	As above
5. Travel Forecasting	As above
6. Mobile Emissions Planning	As above
7. Travel Monitoring And Data Programs	As above
8. Planning Scenarios And Socio Economic Forecasting	As above
9. Mobility And Enhancement Programs	As above
10. TPB Support and Management	As above
Sub-total: Core Program	\$14,020,515
<b>B. TECHNICAL ASSISTANCE *</b>	
1. District of Columbia	\$283,757
2. Maryland	\$518,802
3. Virginia	\$436,815
4. Public Transportation / WMATA	\$180,174
Sub-total: Technical Assistance Program	\$1,419,547
<b>TOTAL BASIC UPWP</b>	<b>\$15,440,063</b>
<b>C. AIR SYSTEMS PLANNING</b>	
1. Continuous Airport System Planning (CASP)	\$350,000
Sub-total: Air System Planning	\$350,000
<b>GRAND TOTAL UPWP</b>	<b>\$15,790,063</b>

\* Determined as a proportion of New FY funds.



**Table 3: TPB FY 2020 Work Program by Funding Sources**

Work Activity	Direct Salaries DTP Staff	Direct Salaries Other COG Staff	Total Direct Labor Costs	M&A	Leave Benefits	Fringe Benefits	Non Personnel	Contract	Consultant	Other Costs	Total Other Direct Costs	Total	
<b>CORE PROGRAMS</b>													
1. Long-Range Planning	\$354,290	\$15,525	\$369,815	\$91,292	\$89,574	\$134,917	\$1,000	\$100,000	\$6,900	\$109,900	\$1,049,854		
2. Performance-Based Planning and Programming	\$245,855	\$0	\$245,855	\$60,692	\$59,549	\$89,534	\$1,200	\$75,000	\$800	\$77,000	\$701,888		
3. Mobile Emissions Planning	\$640,018	\$74,221	\$714,240	\$176,316	\$172,999	\$27,000	\$28,438	\$10,000	\$33,300	\$71,738	\$1,887,114		
4. Planning Programs	\$690,499	\$16,464	\$706,963	\$174,520	\$171,236	\$17,000	\$1,000	\$35,000	\$26,150	\$62,150	\$1,859,069		
5. Travel Forecasting	\$790,437	\$0	\$790,437	\$195,126	\$191,455	\$1,000	\$8,609	\$25,438	\$650,000	\$69,600	\$745,038	\$2,754,084	
6. Travel Monitoring and Data Programs	\$556,068	\$0	\$556,068	\$137,270	\$134,687	\$1,000	\$57,284	\$55,000	\$1,188,977	\$103,000	\$1,346,977	\$2,760,329	
7. Cooperative Forecasting & Transportation Planning Coordination	\$146,458	\$190,895	\$337,353	\$83,279	\$0	\$0	\$520,094	\$2,500	\$0	\$55,500	\$58,000	\$915,447	
8. Public Participation and Human Transportation Service Coordination	\$390,150	\$0	\$390,150	\$96,312	\$0	\$0	\$3,343	\$601,491	\$2,000	\$165,000	\$103,250	\$270,250	\$1,261,891
9. Transportation Alternatives and Land Use Connection Programs	\$50,332	\$36,225	\$86,557	\$21,000	\$0	\$0	\$59,534	\$133,445	\$1,000	\$260,000	\$1,050	\$262,050	\$482,052
10. TPB Support and Management	\$253,334	\$0	\$253,334	\$0	\$0	\$0	\$174,242	\$390,563	\$1,000	\$37,792	\$210,962	\$249,754	\$893,651
<b>Core Program Total</b>	<b>\$4,117,441</b>	<b>\$333,330</b>	<b>\$4,450,771</b>	<b>\$771,126</b>	<b>\$711,118</b>	<b>\$711,118</b>	<b>\$3,061,219</b>	<b>\$6,861,712</b>	<b>\$120,576</b>	<b>\$2,421,769</b>	<b>\$610,512</b>	<b>\$3,252,857</b>	<b>\$14,565,379</b>
<b>TECHNICAL ASSISTANCE</b>													
A. District of Columbia	\$59,521	\$0	\$59,521	\$0	\$0	\$21,715	\$40,938	\$91,763	\$0	\$123,458	\$9,014	\$132,472	\$283,756
B. Maryland	\$75,966	\$0	\$75,966	\$0	\$0	\$27,714	\$52,249	\$117,116	\$0	\$180,000	\$145,719	\$325,719	\$518,801
C. Virginia	\$74,984	\$0	\$74,984	\$0	\$0	\$27,356	\$51,574	\$115,603	\$0	\$147,000	\$99,211	\$246,211	\$436,798
D. WMATA	\$6,793	\$0	\$6,793	\$0	\$0	\$45	\$2,478	\$4,672	\$10,472	\$0	\$162,899	\$162,899	\$180,164
<b>Technical Assistance Program Total</b>	<b>\$217,265</b>	<b>\$0</b>	<b>\$217,265</b>	<b>\$0</b>	<b>\$0</b>	<b>\$79,263</b>	<b>\$149,434</b>	<b>\$334,955</b>	<b>\$0</b>	<b>\$450,458</b>	<b>\$416,843</b>	<b>\$867,301</b>	<b>\$1,419,520</b>
<b>Total Basic Program</b>	<b>\$4,334,705</b>	<b>\$333,330</b>	<b>\$4,668,036</b>	<b>\$771,126</b>	<b>\$711,118</b>	<b>\$711,118</b>	<b>\$3,210,653</b>	<b>\$7,196,667</b>	<b>\$120,576</b>	<b>\$2,872,227</b>	<b>\$1,027,355</b>	<b>\$4,120,158</b>	<b>\$15,984,900</b>
<b>CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)</b>	<b>\$127,264</b>	<b>\$0</b>	<b>\$127,264</b>	<b>\$31,116</b>	<b>\$30,825</b>	<b>\$46,429</b>	<b>\$87,532</b>	<b>\$196,202</b>	<b>\$0</b>	<b>\$0</b>	<b>\$26,534</b>	<b>\$26,534</b>	<b>\$350,000</b>
<b>GRAND TOTAL</b>	<b>\$4,461,969</b>	<b>\$333,330</b>	<b>\$4,795,300</b>	<b>\$1,183,763</b>	<b>\$1,161,487</b>	<b>\$1,749,435</b>	<b>\$3,298,184</b>	<b>\$7,392,869</b>	<b>\$120,576</b>	<b>\$2,872,227</b>	<b>\$1,053,889</b>	<b>\$4,146,692</b>	<b>\$16,334,899</b>



**Figure 5: Major Components of UPWP Work Activities**

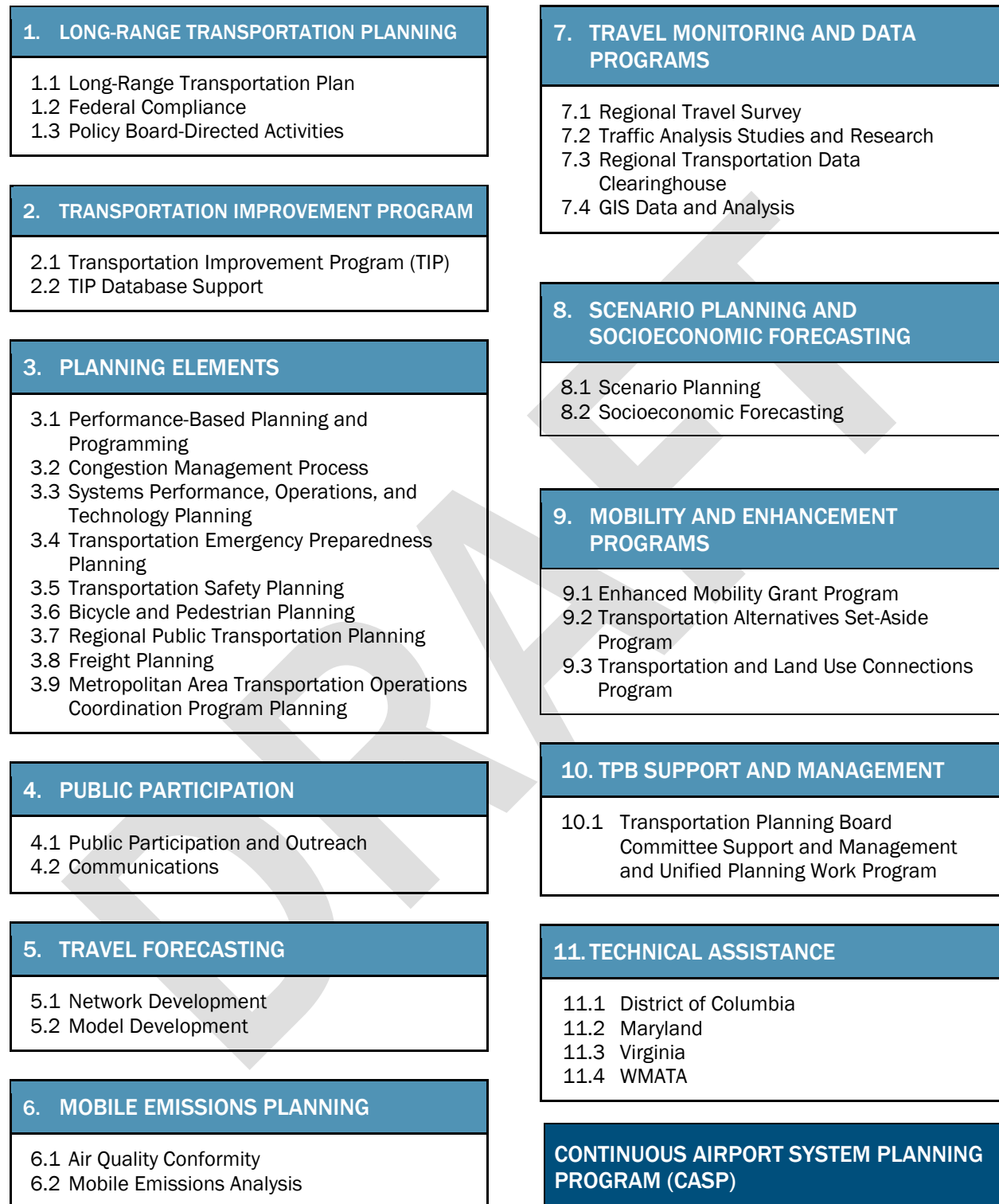


Figure 6: TPB Committee Structure

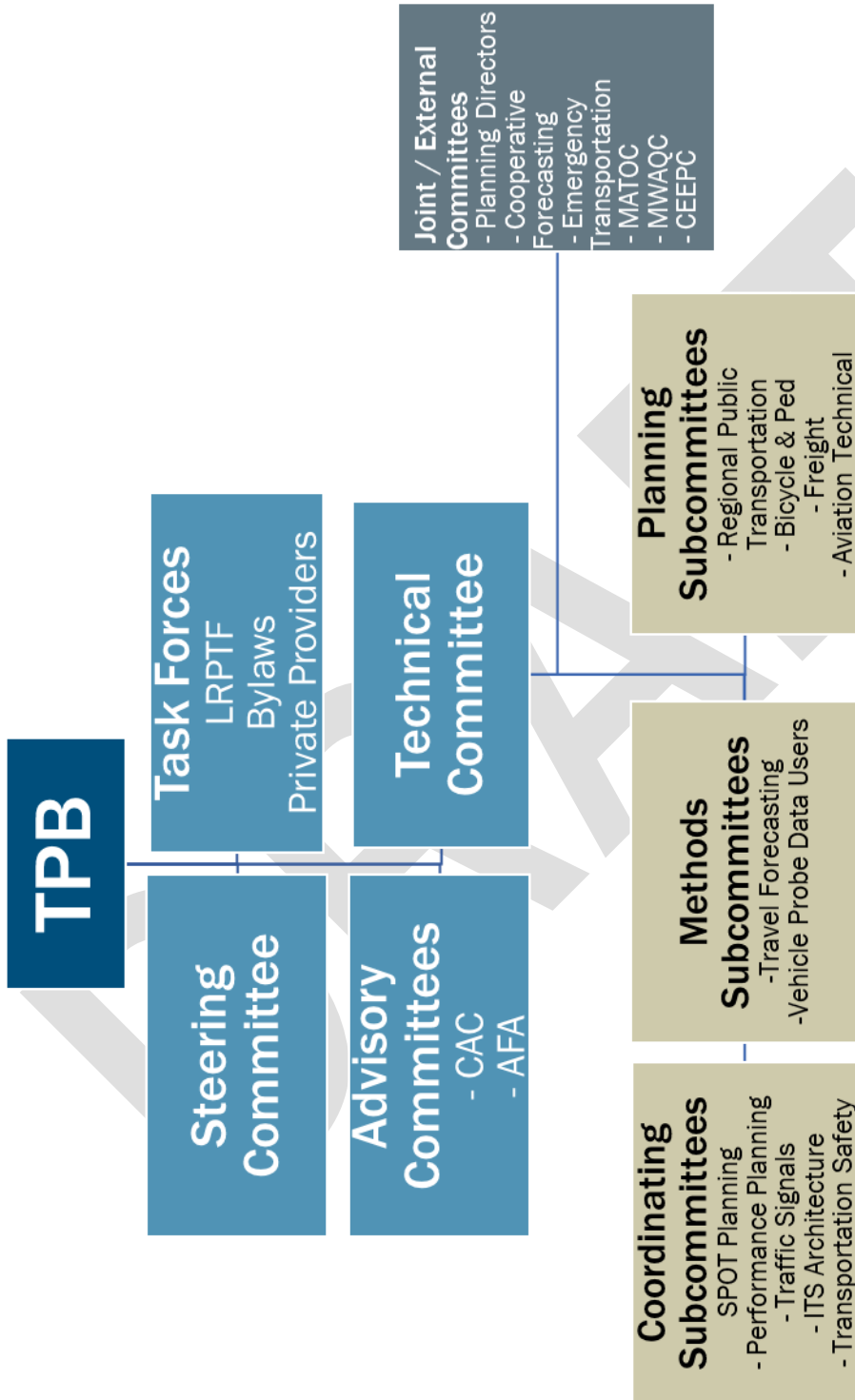
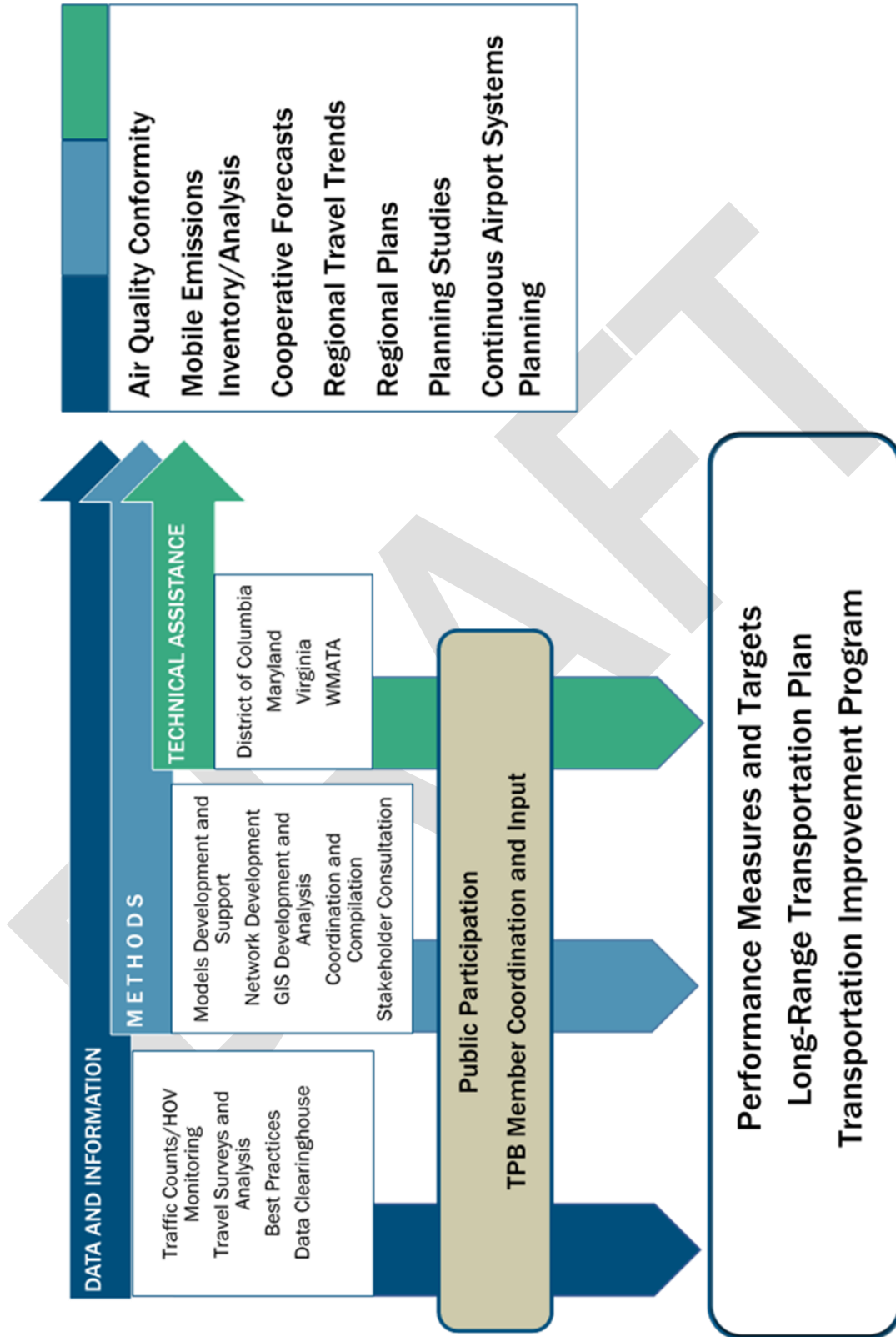




Figure 7: Overview of Planning Products and Supporting Processes





## III. MAJOR WORK ACTIVITIES

### 1. Long-Range Transportation Planning

**OVERSIGHT**

TPB Technical Committee

**MAJOR PRODUCTS**

- Station Access Plan (Resolution R9-2019)
- Schedule and scope for the next long-range plan update
- Supporting analysis for the next plan

**TOTAL COST ESTIMATE**

\$

#### 1.1 LONG-RANGE TRANSPORTATION PLAN

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies all regionally significant transportation investments planned through 2045 and provides detailed analysis to help decision makers and the public “visualize” the region’s future under current plans. The plan was approved in October 2018 and this activity describes work to support implementation and future plan development activities.

*Visualize 2045 Implementation*

- Conduct general coordination and outreach to members to help members understand and implement the plan and the aspirational initiatives.
- Provide opportunities for consideration, coordination, and collaborative enhancement of Visualize 2045.
- Conduct analysis as necessary to support the aspirational initiatives.

*Environmental Justice and Equity*

- Conduct analysis to further understand the results of the Environmental Justice analysis of Visualize 2045.
- Provide analysis and support for other equity-related activities.

*Future Plan Update(s)*

- Provide staff support to a potential plan amendment, if requested by members.
- Develop schedule and scope for the next quadrennial transportation plan update.
- Conduct additional planning analysis to support plan development.

## 1.2 FEDERAL COMPLIANCE

The TPB has federal responsibilities and this task supports work to maintain compliance with those requirements.

- Federal Certification is scheduled to be completed in July 2019. Complete tasks as noted in the Federal report to address any issues that have been noted.
- The FAST Act expires September 30, 2020; monitor possible future transportation regulations and/or changes and prepare accordingly.
- Track, research, and respond to all Federal activities that impact the metropolitan transportation planning process.

## 1.3 POLICY BOARD-DIRECTED ACTIVITIES

The TPB is a policy board that can take action on a variety of transportation planning and policy initiatives. This task will support any activities that the Board directs staff to do.

- Carry out staff activities related to TPB Resolution R10-2019.
- Carry out additional activities as directed by the TPB.

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## 2. Transportation Improvement Program

<b>OVERSIGHT</b>	TPB Technical Committee
<b>MAJOR PRODUCTS</b>	<ul style="list-style-type: none"><li>• New iTIP Database</li><li>• FY 2021-2027 TIP</li></ul>
<b>TOTAL COST ESTIMATE</b>	\$

### 2.1 TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

The Transportation Improvement Program (TIP) is a federal obligation document which describes the planned schedule in the next six years for distributing federal, state, and local funds for state and local transportation projects. This activity will encompass the following work tasks in FY 2020:

#### TIP Programming

- Update and produce the FY 2021-2027 TIP.
- Prepare, review, and process administrative modifications and amendments to the currently approved TIP.
- Review administrative modifications and amendments for fiscal constraint.
- Enhance documentation of the TIP with additional analysis as a part of the long-range plan/TIP publications and the Visualize 2045 web site.
- Provide public access to long-range plan and TIP project data through an improved online searchable database and a linked GIS database.
- Prepare annual certification of compliance with regulations on the provision of transit services to persons with disabilities.
- Prepare an annual listing of projects for which federal funds have been obligated in the preceding year for the FY 2019-2024 TIP.

#### Performance Based Planning and Programming

Federal surface transportation law, as developed in MAP-21 and continued under the FAST Act, 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. 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, Visualize 2045 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 the MPO region.

Under the performance provisions, the TIP shall do the following, in coordination with Visualize 2045:

- 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.

## 2.2 TIP DATABASE SUPPORT

In FY 2019, TPB procured a consultant to develop a new iTIP Database which provides a complete upgrade and overhaul to the project database information system. This new system will integrate current functionality into one enhanced, unified, user-friendly, customizable system that can be branded with COG and TPB styles. The system will have the ability to add or change fields, forms, queries and reports to respond to data requests or changes to requirements in the future. GIS mapping of projects will be integrated into the system, which will allow for data to be exported and used in other ArcGIS applications. The system will allow the many data input users to provide automated data transfers to the extent possible. Database versioning or some other means will be used to provide access to data in various states of input and approval without duplicating data. The system will include searchable data sets for the public, TPB members, federal approval agencies, and other stakeholders to query and interact with using maps, reports and charts. These are the work activities that will be undertaken to support this task.

- Develop and transition to a new long-range plan, TIP project, and conformity record database, with a GIS database.
- Coordinate with State DOT and other agency users to provide for data transfer and use of the database to support TIP requirements.
- Provide public access to long-range plan and TIP project data through an improved online searchable database and a linked GIS database.

### 3. Planning Elements

<b>OVERSIGHT</b>	Various (see below)
<b>MAJOR PRODUCTS</b>	See program-specific products below
<b>TOTAL COST ESTIMATE</b>	\$X

#### 3.1 PERFORMANCE-BASED PLANNING

<b>OVERSIGHT</b>	TPB Technical Committee
<b>MAJOR PRODUCTS</b>	<ul style="list-style-type: none"><li>• Performance measures and targets; associated documentation</li></ul>

This task develops data and reports for the TPB's setting and tracking of federally-specified performance-based planning and programming (PBPP) targets, in accordance with Letters of Agreement (LOAs) that have been signed between TPB and partner agencies.

TPB coordinates the PBPP framework with state departments of transportation and public transportation providers, 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; and State Freight Plan.

This task includes:

- Continue implementation of the performance-based planning framework for metropolitan transportation planning and decision making, including investment priorities, target setting and measuring progress toward those targets.
- Coordinate with the states and public transportation providers on data collection and sharing, targets, and federally-required reporting.
- Support TPB as it reviews data and sets required targets.

## 3.2 CONGESTION MANAGEMENT PROCESS

### OVERSIGHT

Systems Performance, Operations, and Technology Subcommittee (SPOTS)

### MAJOR PRODUCTS

- Congestion Management Process Technical Report
- VPDUG reference materials
- Documentation for FAST Act performance and target reporting requirements

This task develops and maintains the regional Congestion Management Process (CMP), providing information on current congestion on the region's roadways through data analysis, as well as identifying potential multi-modal strategies to manage congestion.

This task includes:

- Compile information and undertake analysis for the development of major CMP components, including application of available or emerging "big data" sources.
- Develop the FY 2020 CMP Technical Report.
- Produce the National Capital Region Congestion Report, released as a quarterly website "dashboard".
- Provide CMP technical input to the Performance-Based Planning task.
- Produce special CMP analyses, such as following a major event, on an as-needed basis.
- 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.

## 3.3 SYSTEMS PERFORMANCE, OPERATIONS, AND TECHNOLOGY PLANNING

### OVERSIGHT

Systems Performance, Operations, and Technology Subcommittee (SPOTS)

### MAJOR PRODUCTS

- Regional ITS architecture update
- Regional surveys on traffic signal timing and power back-up systems
- Documentation for FAST Act performance and target reporting requirements

This task addresses requirements for Regional Transportation Systems Management and Operations (RTSMO) and related technology.

This task includes:

- Address FAST Act requirements related to technology and RTSMO; address RTSMO-related aspects of connected and autonomous vehicle technology and shared mobility developments.



- Update the Regional Intelligent Transportation Systems (ITS) Architecture.
- Address Traffic Incident Management (TIM) as it relates to metropolitan transportation planning and RTSMO.
- Address resiliency and reliability planning aspects of RTSMO.
- Conduct regional surveys on traffic signal timing and power back-up systems.
- Support the regional Systems Performance, Operations, and Technology Subcommittee (SPOTS) and the Traffic Signals Subcommittee.

### 3.4 TRANSPORTATION EMERGENCY PREPAREDNESS PLANNING

#### OVERSIGHT

COG Transportation Emergency Preparedness Committee in coordination with the Systems Performance, Operations, and Technology Subcommittee

#### MAJOR PRODUCTS

- Documentation pursuant to DHS and UASI requirements

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 (R-ESF 1) Transportation Emergency Preparedness Committee, within the COG public safety committee structure, advises these efforts and coordinates with emergency management agencies, police, fire, and other emergency response committees.

This task includes:

- Undertake transportation emergency coordination and response planning through the emergency management and Homeland Security Urban Area Security Initiative (UASI) processes.
- Address Traffic Incident Management (TIM) as it relates to transportation emergency preparedness planning.
- Support the Regional Transportation Emergency Preparedness Committee (R-ESF 1).

### 3.5 TRANSPORTATION SAFETY PLANNING

#### OVERSIGHT

TPB Transportation Safety Subcommittee

#### MAJOR PRODUCTS

- Documentation for FAST Act performance and target reporting requirements
- Safety study documentation

This task addresses 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.

This task includes:

- Support engineering, education, and enforcement strategies to reduce fatalities, serious injuries, and crashes in the National Capital Region.
- Address regional FAST Act 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.
- Complete a regional study investigating and documenting regional safety trends and influencing factors.
- Provide technical advice to the "Street Smart" regional pedestrian and bicycle safety public outreach campaign (Street Smart is supported by funding outside the UPWP).
- Support the Transportation Safety Subcommittee in its coordination and advisory roles.

### 3.6 BICYCLE AND PEDESTRIAN PLANNING

#### OVERSIGHT

TPB Regional Bicycle and Pedestrian Subcommittee

#### MAJOR PRODUCTS

- Regional bicycle and pedestrian plan
- Regional outreach workshops

This task addresses planning for bicycle and pedestrian aspects of the region's transportation system and coordinating with related state, regional, and local efforts. This task includes:

- Produce an updated Bicycle and Pedestrian Plan for the National Capital Region, including defining an expanded regional trails network.
- Monitor and update nonmotorized recommendations for the Transportation Improvement Program (TIP); monitor Regional Complete Streets and Green Streets activities.
- Provide technical advice to the "Street Smart" regional pedestrian and bicycle safety public outreach campaign (Street Smart is supported by funding outside the UPWP).
- Conduct two or more regional bicycle and pedestrian planning or design training, outreach, or professional development opportunities for member agency staffs.
- Support the Bicycle and Pedestrian Subcommittee in its coordination and advisory roles.

### 3.7 REGIONAL PUBLIC TRANSPORTATION PLANNING

#### OVERSIGHT

TPB Regional Public Transportation Subcommittee

#### MAJOR PRODUCTS

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

This task addresses planning for public transportation aspects of the region's transportation system and coordinating with related state, regional, and local efforts. This task includes:

- Address public transportation-related aspects of metropolitan transportation planning, such as consideration of inter-city buses, commuter buses, rail transit, and commuter rail.
- Continue implementation of federal requirements for performance-based planning, specifically transit safety and transit asset management, including data collection, analysis of the performance measures, forecasting, and setting of targets.
- Produce an annual report on the "State of Public Transportation".
- Provide support to private providers of transportation in the region, including organizing the annual Private Providers Annual Transit Forum.
- Support the Regional Public Transportation Subcommittee in its coordination and advisory roles.

### 3.8 FREIGHT PLANNING

#### OVERSIGHT

#### TPB Freight Subcommittee

#### MAJOR PRODUCTS

- **Documentation as necessary supporting FAST Act requirements of freight planning**
- **Maintenance of the regional freight plan, "Freight Around the Region" publications, and related information on the TPB website**

This task addresses planning for freight aspects of the region's transportation system and coordinating with related state, regional, and local efforts. The Regional Freight Plan updated in FY 2016 provides guidance for continued regional planning activities.

This task includes:

- Compile and analyze 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.
- Coordinate with relevant jurisdictions and committees on regional rail issues.
- Address the FAST Act requirements related to regional freight transportation planning, including PBPP measures and targets.
- Support the TPB Freight Subcommittee in its coordination and advisory roles.

### 3.9 METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING

#### OVERSIGHT

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

#### MAJOR PRODUCTS

- **MATOC Steering Committee Materials**

This task is to provide TPB's planning support for the Metropolitan Area Transportation Operations Coordination (MATOC) Program, in conjunction with the MATOC Steering Committee, subcommittees, and partner agencies, as MATOC pursues its function of providing real-time situational awareness of transportation operations in the National Capital Region. TPB is an ex-officio member of MATOC.

This task includes:

- Provide administrative support of the MATOC Steering Committee, including preparation of agendas and summaries and tracking of action items.
- Provide TPB staff input and advice to the MATOC Steering Committee and its subcommittees and working groups.
- Address Traffic Incident Management (TIM) as it relates to MATOC planning.
- Provide briefings to the TPB on MATOC Program progress as requested.

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## 4. Public Participation

### OVERSIGHT

#### Transportation Planning Board

### MAJOR PRODUCTS

- Public comment solicited and documented
- Support for all Tasks
- CAC and AFA Committee reports
- Information dissemination through the website, social media, and printed documents
- Public Participation Plan update

### TOTAL COST ESTIMATE

\$

### 4.1 PUBLIC PARTICIPATION AND OUTREACH

Public participation, outreach, and communications are essential to carrying out the continuing, cooperative, and comprehensive (3C) metropolitan transportation planning process. The TPB's Participation Plan as approved by the TPB in September 2014 guides all public involvement activities to support the development of the plan, TIP, and all other TPB planning activities. The TPB's 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. This activity will encompass the following work tasks in FY 2020:

- Conduct regular public involvement as described in the TPB Participation Plan, including public comment sessions at 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. Staff will ensure that CAC comments are communicated to the TPB regarding transportation plans, projects, programs, and issues that are important to the committee and its members.
- 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, older adults, and those with limited English skills as the TPB's primary strategy for engaging traditionally-disadvantaged population groups in the planning process and for providing guidance on Human Service Transportation Program activities. AFA Committee comments will be shared with the TPB on transportation plans, projects, programs, services, and issues that are important to AFA community groups.
- Develop and conduct workshops or events to engage the public and community leaders on key regional transportation issues, including implementation activities related to Visualize 2045, the TIP, and other regional planning activities.
- Conduct training activities to help community leaders learn how to get more actively involved in transportation decision making in the Washington region.

- Conduct evaluation activities of the public involvement process.
- Ensure that all public participation is consistent with and meets the Federal Civil Rights Act (Title VI) and Executive Order 12988 Environmental Justice.
- Update the TPB Public Participation Plan.

## 4.2 COMMUNICATIONS

This activity will encompass the following work tasks in FY 2020:

- Develop written and visual materials to spread information about regional transportation planning issues, explain how transportation decision-making works, and engage the public.
- Support staff as they develop meeting materials and publications to communicate information developed in other tasks in the UPWP.
- Produce content for the TPB News, Visualize 2045 newsletter, and other digital publications.
- Produce an annual report or other print publication highlighting significant TPB activities.
- Regularly update information on the TPB's webpages, ensuring the site is timely, thorough, and user-friendly.
- Effectively use social media and other digital tools to engage the public in current TPB activities.

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## 5. Travel Forecasting

### OVERSIGHT

TPB Travel Forecasting Subcommittee

### MAJOR PRODUCTS

- A series of highway and transit networks reflecting the latest long-range plan (Visualize 2045) and TIP for input to the regional travel demand model, together with technical documentation
- Maintenance, support and development of currently adopted travel models; inputs, application files and documentation
- Implementation of the multi-year strategic plan to advance travel modeling methods; technical documentation

### TOTAL COST ESTIMATE

\$

The Travel Forecasting work activity prepares and develops the primary inputs to the travel demand model, and develops, maintains, and improves the travel demand model that supports the planning studies carried out by the MPO. This activity will encompass the following work tasks in FY 2020:

### 5.1 NETWORK DEVELOPMENT

- Develop, maintain, and improve the transportation networks (highway and transit) used as inputs to the regional travel demand forecasting model, both the production-use model and any developmental models, including the following:
  - The TPB's long-range plan: Visualize 2045. Major updates to the LRTP occur on a quadrennial basis, e.g., 2018, 2022.
  - Any scenario studies or project-planning studies.
- Provide support for multiple formats of transportation networks, including, as a minimum, Cube TRNBUILD (used by the Generation-2/Ver. 2.3 travel model) and Cube Public Transport (PT, used by the Generation-2/Ver. 2.5 travel model).
- Develop a base-year transit network representing year-2020 conditions. This network is the foundation for all other transit networks, including future-year networks.
- Maintain and refine the multi-year transportation network geodatabase used in regional travel demand modeling and the software used to edit and update the geodatabase. The current version of this software is an ArcGIS add-in called COGTools.
- Coordinate with staff in the Model Application Group, who also have network development/coding responsibilities.
- Respond to network-related technical data requests.

## 5.2 MODEL DEVELOPMENT

The Model Development activity supports the TPB's travel demand forecasting methods and practice. It includes the maintenance of the currently adopted travel demand model and the ongoing implementation of a multi-year strategic plan for model development. The activity also includes related concerns such as data collection, research, and interfacing with travel demand modeling staff at peer MPOs. This activity will likely encompass the following work tasks for FY 2020:

- Develop, maintain, and improve the TPB's regional travel demand forecasting models, both the production-use model and one or more developmental models.
- Support the TPB's current production-use travel model for both internal and external users of the model. In 2018, the production-use model was the Gen2/Ver. 2.3 model (e.g., Ver. 2.3.75). In 2019 and 2020, the production-use model may continue to be Gen2/Ver. 2.3 or, depending on sensitivity and validation tests, it could be the Gen2/Ver. 2.5 model.
- Support the TPB's developmental travel demand models, as per the TPB's strategic plan for model development, which was developed in 2015,<sup>1</sup> and has been updated over time.<sup>2</sup> The strategic plan includes three phases:
  - Phase 1: Updates to the existing aggregate, trip-based, "four-step" travel demand model (essentially updating Gen2/Ver. 2.3 to Gen2/Ver. 2.5). Planned duration: FY 2016 to FY 2019.
  - Phase 2: Development of a next-generation (Gen3) model with existing household travel survey and transit on-board data. Planned duration: FY 2019 to FY 2022. The model form of the Gen3 model (e.g., trip-based, tour-based, activity-based, or hybrid) should be determined in FY 2019 and 2020.
  - Phase 3: Development of a Gen4 model with new data, including the 2017-2018 Regional Travel Survey. Planned duration: FY 2023 to FY 2024.
- In FY 2020, it is expected that the following will occur or will have occurred:
  - Phase 1: Will have been completed. We will have chosen to continue with the Ver. 2.3 model or move to the Ver. 2.5 model.
  - Phase 2: Gen3 model
    - Consultant contract will have started in FY 2019.
    - A series of investigations will be conducted to determine the final development path of the Gen3 model.
    - Development of the Gen3 model by the consultant (15 months: Fall 2019 to winter 2020).
    - Possible data collection for the Gen3 or Gen4 models (6 to 15 months)
    - The remainder of Gen3 model development is planned to occur in FY 2021 and 2022. It is hoped that the Gen3 model will be ready for use in spring 2022.
- Keep abreast of best practices in travel demand modeling through conference attendance and participation in relevant organizations, such as the Transportation Research Board

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<sup>1</sup> Cambridge Systematics, Inc., "Strategic Plan for Model Development, Task Order 15.2, Report 3 of 3," Final Report (Washington, D.C.: Metropolitan Washington Council of Governments, National Capital Region Transportation Planning Board, October 15, 2015).

<sup>2</sup> Mark S. Moran, "Status Report on the TPB's Developmental Travel Demand Forecasting Models" (November 30, 2018).



(TRB), the Travel Modeling Improvement Program (TMIP), and the Association of Metropolitan Planning Organizations' (AMPO) Travel Modeling Work Group.

- Collect, prepare, and analyze data relevant to travel modeling development and validation.
- Respond to travel-model related technical data requests from consultants and local agencies.
- Maintain software and hardware required to apply the regional travel demand model.
- Staff the TPB Travel Forecasting Subcommittee.
- 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.

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## 6. Mobile Emissions Planning

### OVERSIGHT

TPB Technical Committee in consultation with MWAQC

### MAJOR PRODUCTS

- Development of Work Scope for an out-of-cycle Air Quality Conformity analysis of the amended Plan (Visualize 2045)
- Technical documentation supporting SIP-related activities

### TOTAL COST ESTIMATE

\$

### 6.1 AIR QUALITY CONFORMITY

The 1990 Clean Air Act Amendments require MPOs to conduct detailed systems-level technical analyses to demonstrate that future mobile source emissions resulting from the region's plans and programs comply with federally approved budgets. This task supports the air quality conformity analyses and other air quality modelling to comply with federal regulations. This activity will encompass the following work tasks in FY 2020:

- Provide technical travel demand and mobile emissions modeling support to the Conformity Analysis of any future amendments to the Constrained Element of Visualize 2045 and TIP in accordance with federal requirements. Includes the preparation of adopted technical inputs used in transportation and mobile emissions modeling, analysis of modeling outputs, and documentation of the analysis process and results.
- Keep abreast of federal requirements as related to Air Quality Conformity determinations.
- Continue working to incorporate Performance-Based Planning and Programming (PBPP) requirements pertaining to CMAQ reductions into the planning process as it relates to the adopted long-range transportation plan.
- Maintain communication and consultation among transportation agencies, air agencies, and the public regarding air quality related matters in the region.

### 6.2 MOBILE EMISSIONS ANALYSIS

This task conducts a wide range of analyses to quantify mobile-source 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.

- Conduct travel demand modeling and mobile emissions modeling in support of SIP planning activities. Pending selection of a Base Year for the 2015 ozone NAAQS, develop mobile source inventories for VOC and NOx. Inventories will require highway and transit network coding, travel demand modeling, and MOVES mobile emissions modeling for the designated Base Year.

- Revisit opportunities to refresh MOVES inputs such as Vehicle Identification Number (VIN) inventories in accordance with ongoing SIP requirements and in consultation with regional environmental and transportation agency partners.
- Conduct sensitivity tests with the existing mobile emissions (MOVES) model as per envisioned changes to inputs; Conduct sensitivity test of new MOVES model versions that may be released by EPA.
- Support the development of state-level mobile inventories or inputs to mobile inventories. The state air agencies are required to develop National Emissions Inventories (NEIs) every three years.
- Provide technical support to COG/DEP staff with greenhouse gas related planning activities
- Respond to technical requests from COG's Department of Environmental Programs and from TPB member jurisdictions for mobile emissions information.
- Follow established TPB interagency and public consultation procedures and coordinate with COG/DEP staff to involve the Metropolitan Washington Air Quality Committee (MWAQC) in the public and interagency consultation process.
- Keep abreast of mobile emissions software (MOVES) updates and best practices.

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## 7. Travel Monitoring and Data Programs

<b>OVERSIGHT</b>	Various (see below)
<b>MAJOR PRODUCTS</b>	See program-specific products below
<b>TOTAL COST ESTIMATE</b>	\$

### 7.1 REGIONAL TRAVEL SURVEY

<b>OVERSIGHT</b>	TPB Travel Forecasting Subcommittee
<b>MAJOR PRODUCTS</b>	<ul style="list-style-type: none"> <li>• Completed output survey datasets</li> <li>• Presentation and information reports</li> <li>• Technical Support</li> </ul>

Work will continue on the large-scale, multi-year Regional Travel Survey, which produces data required for the regional travel demand model. When complete, the survey will provide 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. This survey is undertaken approximately once every 10 years and was last 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 was hired to conduct data collection for survey, which was designed to obtain the participation of approximately 15,000 households in TPB modeled area jurisdictions.

This activity will encompass the following in FY 2020:

- Develop completed survey datasets to be used in subsequent analyses to provide inputs into travel demand models used to forecast future travel patterns and vehicle emissions. Staff will edit, clean, and process the raw data obtained from this survey to produce final survey datasets that will be used to support regional travel demand modeling, travel trends analysis, and other importation regional transportation studies and research. Ultimately four (4) survey output datasets will be produced:
  - Household File: describes characteristics of region's households, including the number of persons, workers, vehicles, and bicycles per household as well as housing type, home ownership, and household income.
  - Person File: provides characteristics of the region's population including age, race, ethnicity, employment status, and travel/commuting behavior.
  - Trip File: provides origin/destination information of trips made on assigned survey day as well as trip purpose, travel time, and travel mode, among other trip aspects.

- Vehicle File: includes information on vehicles used by regional households, including year, make, model, and other aspects that characterize the region's residential vehicle fleet.
- Compare results of 2017/2018 RTS with 2007/2008 HTS and present the findings to appropriate committees.
- Respond to inquiries about the survey from state and local government staff, survey participants, and the media.
- Compile and analyze results of RTS and make presentations to the Travel Forecasting Subcommittee, Technical Committee, TPB, and other appropriate committees and stakeholders, as appropriate.
- Initiate geographic-focused research and analysis of the RTS.

## 7.2 TRAFFIC ANALYSIS STUDIES AND RESEARCH

### OVERSIGHT

### TPB Travel Forecasting Subcommittee

### MAJOR PRODUCTS

- Travel monitoring datasets to support PBPP and next-generation modeling requirements
- Technical reports/memoranda

This task conducts travel trends analysis, monitoring studies, and associated research activities to support the regional travel demand forecasting model, performance-based planning and programming (PBPP), and long-range plan development. Individual studies for FY 2020 will be largely determined based on programmatic needs of the regional travel demand forecasting model, PBPP requirements, and long-range planning activities. There will be a special emphasis on expanding the regional travel trends analysis program and the emerging needs associated with development of the next generation regional travel demand forecast model.

During FY 2020, key activities will also include:

- Enhancing the regional travel trends analysis program to produce more frequent data products, reports, and presentations on various aspects of regional travel trends. Staff typically has made presentations to the TPB on regional travel trends once every three years. During FY2020, staff will develop expand the scope of travel trends analysis elements, including potentially developing more geographic-focused travel trends analyses that would be presented to the TPB, TPB Technical Committee and other committees on an annual basis.
- Performing Individual studies travel monitoring studies based on programmatic needs of the regional travel demand forecasting model, PBPP requirements, and long-range plan development activities.

## 7.3 REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

### OVERSIGHT

### TPB Technical Committee

### MAJOR PRODUCTS

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

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

This activity will encompass the following in FY 2020:

- Update Clearinghouse traffic volume data with AADT and AAWDT volume estimates, hourly directional traffic counts, and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.
- Update Clearinghouse transit ridership data with data received from WMATA, PRTC, VRE, MTA and local transit agencies including the Ride-On, The Bus, ART, DASH, and the Fairfax Connector.
- Update freeway and arterial road speed and level of service data.
- Update Clearinghouse highway network bridge and pavement condition data from most current National Bridge Inventory and Highway Performance Management System databases.
- Add updated Cooperative Forecasting data by TAZ to the Regional Transportation Clearinghouse Data.
- Work with the Travel Forecasting and Mobile Emissions Planning Team to develop specifications for a geodatabase of cadastral (parcel-level) data; evaluate data availability and collective relevant data as required; begin developing a regional parcel-level land use database using TAZ-level Cooperative Forecasting data to support travel forecasting model improvements.
- Distribute Regional Transportation Clearinghouse Data to TPB participating agencies via a GIS web-based application.

## 7.4 GIS DATA AND ANALYSIS

### OVERSIGHT

### TPB Technical Committee

### MAJOR PRODUCTS

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

This work activity provides Geographic Information System (GIS) data and technical support to users of the TPB's GIS data for numerous important planning activities, including long-range planning (Visualize 2045), the TIP, performance-based planning and programming (PBPP), congestion monitoring and analysis, cooperative forecasting, travel trends analysis, scenario planning, Regional Transportation Data Clearinghouse, travel network and models development, freight, and bicycle planning, among others.

This activity will encompass the following work tasks in FY 2020:

- Provide data and technical support to staff using GIS for development and distribution of data and information developed for TPB planning activities.

- Provide technical guidance and develop GIS-based products (web maps and applications, visualization, etc.) for TPB planning activities.
- Respond to requests for TPB GIS metadata, databases, and applications.
- Coordinate 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.

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## 8. Scenario Planning and Socioeconomic Forecasting

<b>OVERSIGHT</b>	TPB Technical Committee
<b>MAJOR PRODUCTS</b>	<ul style="list-style-type: none"><li>• See program-specific products</li></ul>
<b>TOTAL COST ESTIMATE</b>	\$

This task supports identifying and testing alternative future planning scenarios and their potential influence on regional travel and mobility. These analyses provide regional decision makers with insights and understanding of how transportation planning decisions made today can influence regional travel and mobility in the future. This task also supports development of socioeconomic forecasts (Cooperative Forecasts) of population, households, and employment, which reflect technical and policy assumptions of future land use in the region's jurisdictions and are essential inputs into the region's travel demand model and forecasting tools.

### 8.1 SCENARIO PLANNING

<b>OVERSIGHT</b>	TPB Technical Committee
<b>MAJOR PRODUCTS</b>	<ul style="list-style-type: none"><li>• Work plan</li><li>• Status briefings and information reports</li><li>• Technical support</li></ul>
<b>TOTAL COST ESTIMATE</b>	\$

To further build its technical capabilities and support regional transportation planning activities, staff will begin testing and evaluating different scenario planning tools that can be used in future scenario planning analyses. This new effort will cut across all program areas of the Department of Transportation Planning and will feature extensive collaboration and coordination throughout the Department to identify program requirements and carry out initial activities.

Initial activities in FY2020 will include:

- Developing a work plan
- Identifying potential scenario planning tools
- Initiating testing scenario potential tools

## 8.2 SOCIOECONOMIC FORECASTING

### OVERSIGHT

TPB Technical Committee

### MAJOR PRODUCTS

- Updated Cooperative Forecasting land activity forecasts and documentation
- Analysis of Activity Center and High Capacity Transit Station area forecasts
- Information reports and products
- Technical support

### TOTAL COST ESTIMATE

\$

Staff will continue to coordinate land use and regional transportation planning in the region. Central to this activity will be supporting the development of the Round 9.2 Cooperative Forecasts. Activities required to coordinate the development of the Cooperative Forecasts and regional transportation planning will include:

- Support the joint effort of the Planning Directors Advisory Committee (PDTAC) and the Housing Directors Committee to respond COB Board of Directors-directed and TPB-supported initiative to identify how the region can achieve additional housing development to support regional planning goals.
- Support the PDTAC in the coordination of local, state, and federal planning activities and the integration of land use and transportation planning in the region.
- Analyze changes in regional economic, demographic, and housing trends drawing on the results from the U.S. Census American Communities Survey and from other available federal, state, and local data sources.
- Work with members of the Cooperative Forecasting and Data Subcommittee to enhance and improve the quality of small area (TAZ-level) employment, population, and employment data.
- Work with the Cooperative Forecasting and Data Subcommittee and the PDTAC to assess the effects of significant transportation system changes on the Cooperative Forecasting land activity forecasts.
- Work with the Cooperative Forecasting Subcommittee and the region's Planning Directors to develop updated Round 9.2 growth forecasts at the regional and Transportation Analysis Zone (TAZ) level.
- Document key land use and transportation assumptions used in making updates to the Cooperative Forecasting land activity forecasts.
- Update and maintain Cooperative Forecasting land activity databases of TAZ-level population, household, and employment forecasts that are used as input into TPB travel demand-forecasting model.
- Map and analyze Cooperative Forecasting growth forecasts in relation to COG Activity Centers and premium transit locations.
- Respond to public comments on the Round 9.2 forecasts and the Cooperative Forecasting process.
- Develop and publish useful economic, demographic and housing-related information products including the Regional Economic Monitoring Reports (REMS), the annual

"Commercial Development Indicators," and economic and demographic data tables to be included in the Region Forward work program.

- Use TPB transportation planning data to update information for the approved COG Region Forward Targets and Indicators.

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## 9. Mobility and Enhancement Programs

### OVERSIGHT

TPB Technical Committee

### MAJOR PRODUCTS

- Solicit and select projects for FTA Section 5310 funding
- TAP Coordination and project selection for DC, MD and VA
- TLC Technical Assistance including final reports, provided by consultant teams to localities
- Updated website
- Regional Peer Exchange Network Activities

### TOTAL COST ESTIMATE

\$

The TPB solicits and selects projects for the following three programs. This activity will encompass the following work tasks in FY 2020:

### 9.1 ENHANCED MOBILITY GRANT PROGRAM

COG is the designated recipient for the FTA “Section 5310: Enhanced Mobility of Seniors and Individuals with Disabilities” program. This task includes:

- Plan for and implement the next solicitation and selection of projects for FTA Section 5310 Enhanced Mobility funding.
- Support the implementation of the Coordinated Plan by furthering the goals and strategies in the plan provide an array of transportation services and options to older adults and people with disabilities.
- \*The UPWP does not provide financial support to implement the projects and oversee the grants that have been awarded. These activities are funded by the FTA Section 5310 Program.

### 9.2 TRANSPORTATION ALTERNATIVES SET-ASIDE PROGRAM

Coordinate and conduct the selection process for small capital improvement projects that will be awarded funding sub-allocated to the Washington metropolitan region through the state DOTs from the federal Transportation Alternatives Set-Aside Program (TAP). The TPB approves the final selection of projects and submits them to the states for implementation.

### 9.3 TRANSPORTATION LAND-USE CONNECTIONS PROGRAM

The TLC Program offers short term consultant technical assistance to local jurisdictions to advance planning activities that strengthen the connection between local land use and transportation planning. This activity will encompass the following work tasks in FY 2020:

- 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.
- 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.
- Provide staff support for TLC Technical Assistance Projects to be conducted as part of the MDOT and VDOT Technical Assistance Programs and for other projects where additional funding is provided by state or local agencies.

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## 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

\$

### 10.1 TRANSPORTATION PLANNING BOARD COMMITTEE SUPPORT AND MANAGEMENT AND UNIFIED PLANNING WORK PROGRAM

#### TPB Committee Support

- 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 the 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.
- Participate in the Association of Metropolitan Planning Organizations (AMPO) and meetings.
- Coordinate TPB Planning Activities with Program Directors.
- Day-to-day management of and allocation of staff and financial resources.
- Monitor all work program activities and expenditures.

### **Unified Planning Work Program (UPWP)**

The UPWP for the Metropolitan Washington Region describes all transportation planning activities utilizing federal funding, including FHWA Planning (PL) funds, FTA Section 5303 funds, and (FAA) 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 Unified Planning Work Program (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.
- Prepare 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.
- Prepare the FY 2021 UPWP.

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 2020 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.

### 11.1 DISTRICT OF COLUMBIA

<b>MAJOR PRODUCTS</b>	See program-specific products below
<b>TOTAL COST ESTIMATE</b>	\$

#### 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.

<b>MAJOR PRODUCT</b>	Specific scopes of work, on-going activity
<b>TOTAL COST ESTIMATE</b>	\$

#### 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 2020

**TOTAL COST ESTIMATE**

\$

**3. Big Data Evaluation**

This task, which will be jointly funded by the District of Columbia, Maryland, Virginia, and regional transit technical assistance programs, entails an independent evaluation of Big Data sources and their applicability in evaluating regional travel behavior and in estimating, calibrating, and validating regional travel demand models. Tasks generally will fall into the following three broad categories: (1) review and comparison of how other metropolitan areas have used Big Data in similar applications; (2) identification and analysis potential Big Data sources; and (3) determining whether TPB should pursue Big Data to support future transportation planning studies and analyses as well as in support of regional travel demand forecasting activities.

**MAJOR PRODUCT**

- Technical Report – March 2020

**TOTAL COST ESTIMATE**

\$

**4. 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 2019.

**TOTAL COST ESTIMATE**

\$

## 11.2 MARYLAND

**MAJOR PRODUCTS** See program-specific products below

**TOTAL COST ESTIMATE** \$

### 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** \$

### 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 modelling efforts to support Maryland's Traffic Relief Plan. This work element also anticipates technical work on new planning studies administered by MDOT, MD SHA and other agencies.

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

**TOTAL COST ESTIMATE** \$

### 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, initiating 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.

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

**TOTAL COST ESTIMATE** \$

#### 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.

- MAJOR PRODUCT** • Specific scopes of work, on-going activity
- TOTAL COST ESTIMATE** \$

#### 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. Work activities could include 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.

- MAJOR PRODUCT** • Specific scopes of work, on-going activity
- TOTAL COST ESTIMATE** \$

#### 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 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 a portion 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 2020
- TOTAL COST ESTIMATE** \$

## 7. Big Data Evaluation

This task, which will be jointly funded by the District of Columbia, Maryland, Virginia, and regional transit technical assistance programs, entails an independent evaluation of Big Data sources and their applicability in evaluating regional travel behavior and in estimating, calibrating, and validating regional travel demand models. Tasks generally will fall into the following three broad categories: (1) review and comparison of how other metropolitan areas have used Big Data in similar applications; (2) identification and analysis potential Big Data sources; and (3) determining whether TPB should pursue Big Data to support future transportation planning studies and analyses as well as in support of regional travel demand forecasting activities.

<b>MAJOR PRODUCTS</b>	• Technical Report – March 2020
<b>TOTAL COST ESTIMATE</b>	\$

## 8. MARC-VRE Run Through Analysis

This task, which will be jointly funded through the Maryland and Virginia technical assistance programs, will be an assessment of the market potential for a one-seat commuter rail service between points in the State of Maryland and the Commonwealth of Virginia and its potential to influence development and revitalization of suburban commercial centers.

<b>MAJOR PRODUCTS</b>	• Technical Report – June 2020
<b>TOTAL COST ESTIMATE</b>	\$

## 9. 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 MDSHA in FY 2019.

<b>TOTAL COST ESTIMATE</b>	\$
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## 11.3 VIRGINIA

**MAJOR PRODUCTS** See program-specific products below

**TOTAL COST ESTIMATE** \$

### 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** \$

### 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** \$

### 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** \$

#### 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 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**

\$

#### 5. Big Data Evaluation

This task, which will be jointly funded by the District of Columbia, Maryland, Virginia, and regional transit technical assistance programs, entails an independent evaluation of Big Data sources and their applicability in evaluating regional travel behavior and in estimating, calibrating, and validating regional travel demand models. Tasks generally will fall into the following three broad categories: (1) review and comparison of how other metropolitan areas have used Big Data in similar applications; (2) identification and analysis potential Big Data sources; and (3) determining whether TPB should pursue Big Data to support future transportation planning studies and analyses as well as in support of regional travel demand forecasting activities.

**MAJOR PRODUCT**

- **Technical Report – March 2020**

**TOTAL COST ESTIMATE**

\$

#### 6. MARC-VRE Run Through Analysis

This task, which will be jointly funded through the Maryland and Virginia technical assistance programs, will be an assessment of the market potential for a one-seat commuter rail service between points in the State of Maryland and the Commonwealth of Virginia and its potential to influence development and revitalization of suburban commercial centers.

**MAJOR PRODUCT**

- **Technical Report – June 2020**

**TOTAL COST ESTIMATE**

\$

## 7. 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 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. VDOT supplements this regional effort by allocating a portion of its Technical Assistance funds to provide additional TLC grant funding for Virginia jurisdictions.

### MAJOR PRODUCTS

- Grant awards, technical reports from contractors,  
To be completed by June 2020

### TOTAL COST ESTIMATE

\$

## 8. 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 2019.

### TOTAL COST ESTIMATE

\$

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## 11.4 WMATA

**MAJOR PRODUCTS** See program-specific products below

**TOTAL COST ESTIMATE** \$180,174

### 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** \$

### 2. Big Data Evaluation

This task, which will be jointly funded by the District of Columbia, Maryland, Virginia, and regional transit technical assistance programs, entails an independent evaluation of Big Data sources and their applicability in evaluating regional travel behavior and in estimating, calibrating, and validating regional travel demand models. Tasks generally will fall into the following three broad categories: (1) review and comparison of how other metropolitan areas have used Big Data in similar applications; (2) identification and analysis potential Big Data sources; and (3) determining whether TPB should pursue Big Data to support future transportation planning studies and analyses as well as in support of regional travel demand forecasting activities.

**MAJOR PRODUCT** • Technical Report – March 2020

**TOTAL COST ESTIMATE** \$

### 3. 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 2019.

**TOTAL COST ESTIMATE** \$



## Continuous Airport System Planning Program

### OVERSIGHT

TPB Aviation Technical Subcommittee

### MAJOR PRODUCTS

- Comprehensive Regional Air System Plan Update, Phase 2 and 3
- Process 2019 Regional Air Passenger Survey, Phase 1

### TOTAL COST ESTIMATE

\$

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 2020 UPWP cycle are as follows:

### Comprehensive Regional Air System Plan Update – Phases 2 and 3

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. Moreover, the regional surface transportation plan, Visualize 2045, receives annual incremental updates and 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, the air systems planning region and the nature of air travel has changed so significantly after more than 40 years that a comprehensive regional air system plan update is warranted.

Resource limitations dictate that the RASP update will be spread over three phases: (1) review of previous plans and complementary airport plans and review of state of the practice in regional air system planning, (2) documentation of existing conditions and needs assessment, and (3) forecasts and future planning recommendations. The products of these three phases will be compiled into a single comprehensive document at the end of the RASP update process. Phase 1 of the comprehensive RASP update was completed in FY 2019. Work will continue to complete Phase 2 and initiate Phase 4 during FY2020.

## Process 2019 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 2019 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 2019 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 2020 STATE TRANSPORTATION AGENCY STATE PLANNING AND RESEARCH PROGRAMS (SPR)**

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## **District of Columbia Department of Transportation (DDOT)**

### **ADMINISTRATIVE SUPPORT**

Ensure program objectives and performance goals are met and assist with the implementation of planning activities in compliance with 23 CFR Part 420 Subpart A.

### **STATE AND REGIONAL PLANNING**

Develop and implement the annual State Planning and Research Program (SPR) that describes state planning activities as required under 23 CFR Part 420 Subpart A. Develop and manage the FY2019 Constrained Long Range Plan (CLRP) and implement the FY2019-2024 Transportation Improvement Plan (TIP), and the FY2019-2024 State Transportation Improvement Plan (STIP).

### **NEIGHBORHOOD PLANNING**

Review proposed development plans for transportation impacts and solutions and ensure safe and efficient use of the transportation network. 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.

### **PROJECT 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 through the development of joint planning projects.

### **ACTIVE TRANSPORTATION PROGRAM MANAGEMENT**

Improve safety for bicyclist and pedestrians through infrastructure improvements, public education and outreach. Ensure the safety of motor carrier operations through enforcement, regulations, and improving safety information systems and commercial motor vehicle technologies by increasing safety awareness

### **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**

Collect and analyze data in support of the Highway Performance Monitoring System (HPMS) and ensure accurate and timely data is collected to assess pavement conditions.

## **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 regional transportation planning and special technical assistance projects proposed to be undertaken July 1, 2019, through June 30, 2020, by COG/TPB staff in cooperation with state and local agencies and WMATA.

## **PROGRAM FUNDING**

The FY 2020 SPR Program funding is under development. The FY 2019 budget is \$2,397,072 (Federal = \$1,917,658 and District = \$479,414).

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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 jurisdictions' 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.
  - Develop 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
<b>Systems &amp; Programming</b>	
CTP	\$ 240,300
Local Government Liaison	\$ 178,200
Long-Range Planning	\$ 32,400
<b>Traffic Monitoring Program</b>	\$ 729,000
MPO Liaison	\$ 24,077
Highway Statistics	\$ 498,508
Special Studies	\$ 94,500
<b>TOTAL</b>	<b>\$ 1,796,985</b>

# Virginia Department of Transportation (VDOT)

## SPR FUNDS FOR DISTRICT PLANNING ANNUAL ACTIVITIES

### Metropolitan Planning Support Activities

This element represents the various activities undertaken by Northern Virginia 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 MPO's FY 2020 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 Working Group on Greenhouse Gas Emissions.
- Oversight of the TPB/MWCOG activities such as: development/update of the long-range plan, 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, including: 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 Northern Virginia District Planning section to participate in and provide assistance to Transportation and Mobility Planning Division 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 congestion/mobility challenges in the near-, mid-, or long-term. Examples of such studies currently underway in FY 2020 include: Assist NVTA in evaluation of significant transportation projects pursuant to HB 599; validate NVTA ratings; Fairfax County Parkway corridor Improvements; STARS Program Corridor Improvement studies; Smart Scale performance-based project prioritization and funding process.

Ongoing planning functions supported by SPR funding include:

- 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)

In addition to supporting staff planning activities, SPR funding is used to fund special plans and studies requiring outside consultants. This takes two different forms, depending on the size, complexity and budget of the project.

**Major SPR Special Projects:** These are projects that require major funding (generally over \$500,000) and time commitments and procurement of consultants. In FY 2018, VDOT has completed the legislatively mandated "HB 599" Project Rating process using SPR funds. There are no current or anticipated Major SPR projects. The rating process has been incorporated into the Northern Virginia Transportation Authority's long-range plan development process. VDOT staff is involved in the new process and in confirming the validity of project ratings, but SPR annual staff funding is used to support VDOT's role.

**On-Call Consultant Plans and Studies:** VDOT uses SPR funds to support routine planning projects, generally with budgets under \$500,000 and requiring consultants. VDOT procures on-call consultants for 2-year contracts and assigns the appropriate consultant team to work on District-level projects as needed. Currently, on-call consultants are preparing the Rollins Ford Road Safety Study for VDOT in Prince William County. This project may extend into FY 2020.

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## V. APPENDIX

### Memoranda of Understanding

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

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