

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

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ABOUT THE TPB

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

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

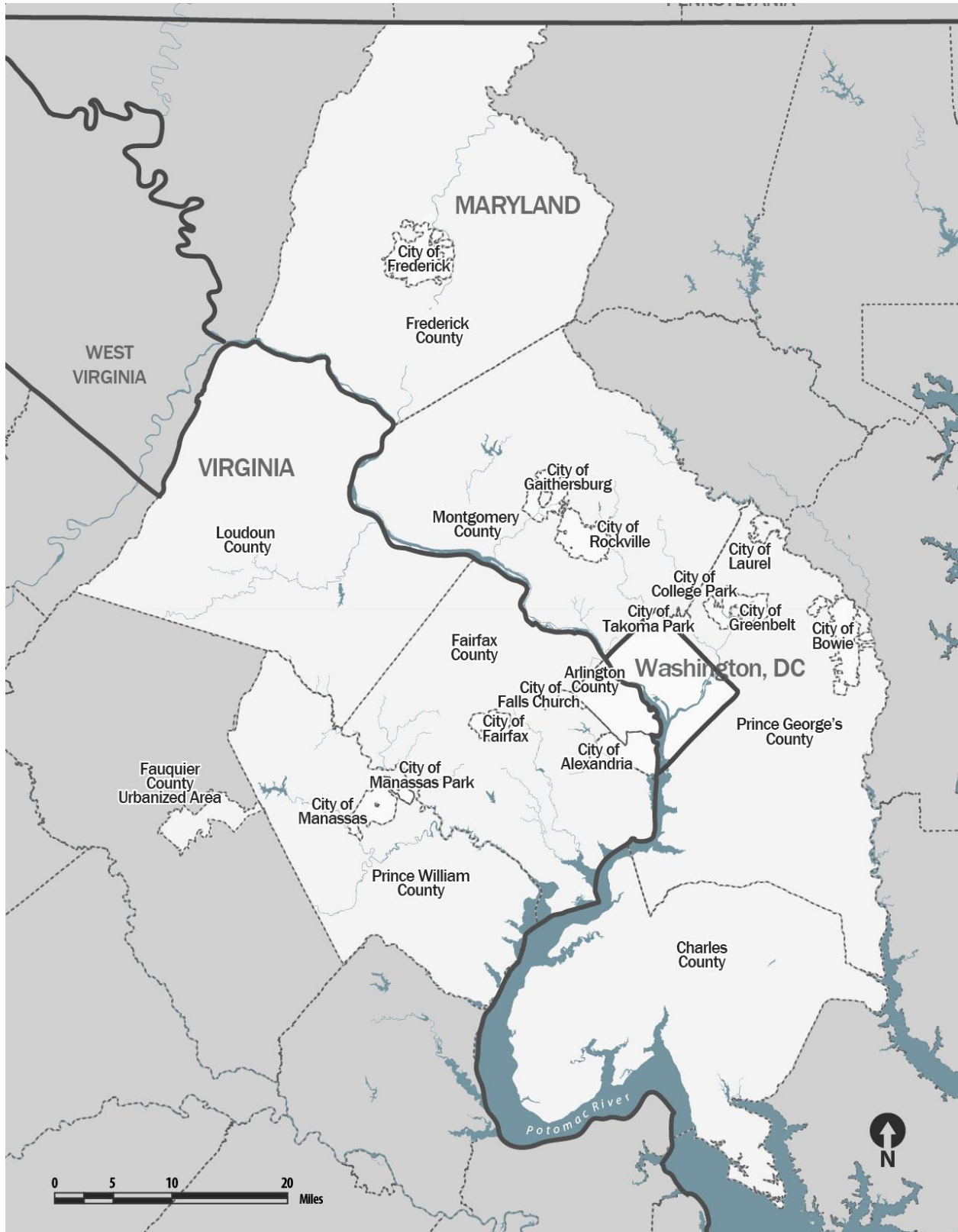


Figure 3: Transportation Planning and Programming Responsibilities

RESPONSIBILITY	AGENCIES
UPWP Development	TPB, DOTs, WMATA, Local Governments
Planning Certification	TPB, DOTs
Performance-Based Planning	TPB, DOTs, WMATA, Public Transportation Providers
Visualize 2045 Development	
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
TIP Development	
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
Air Quality 2010 Attainment Plan	MWAQC, TPB, DOTs
CO2 Mobile Emissions Reduction	WMATA, State Air Quality Agencies
Climate Change Adaptation	TPB, DOTs, WMATA, Local Governments
Corridor Studies	DOTs, WMATA, TPB
Travel Demand Forecasting	TPB
Travel Monitoring	TPB, DOTs, WMATA, Local Governments

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
TABLE 1 PRELIMINARY REVENUE ESTIMATES FOR FY 2020 UPWP

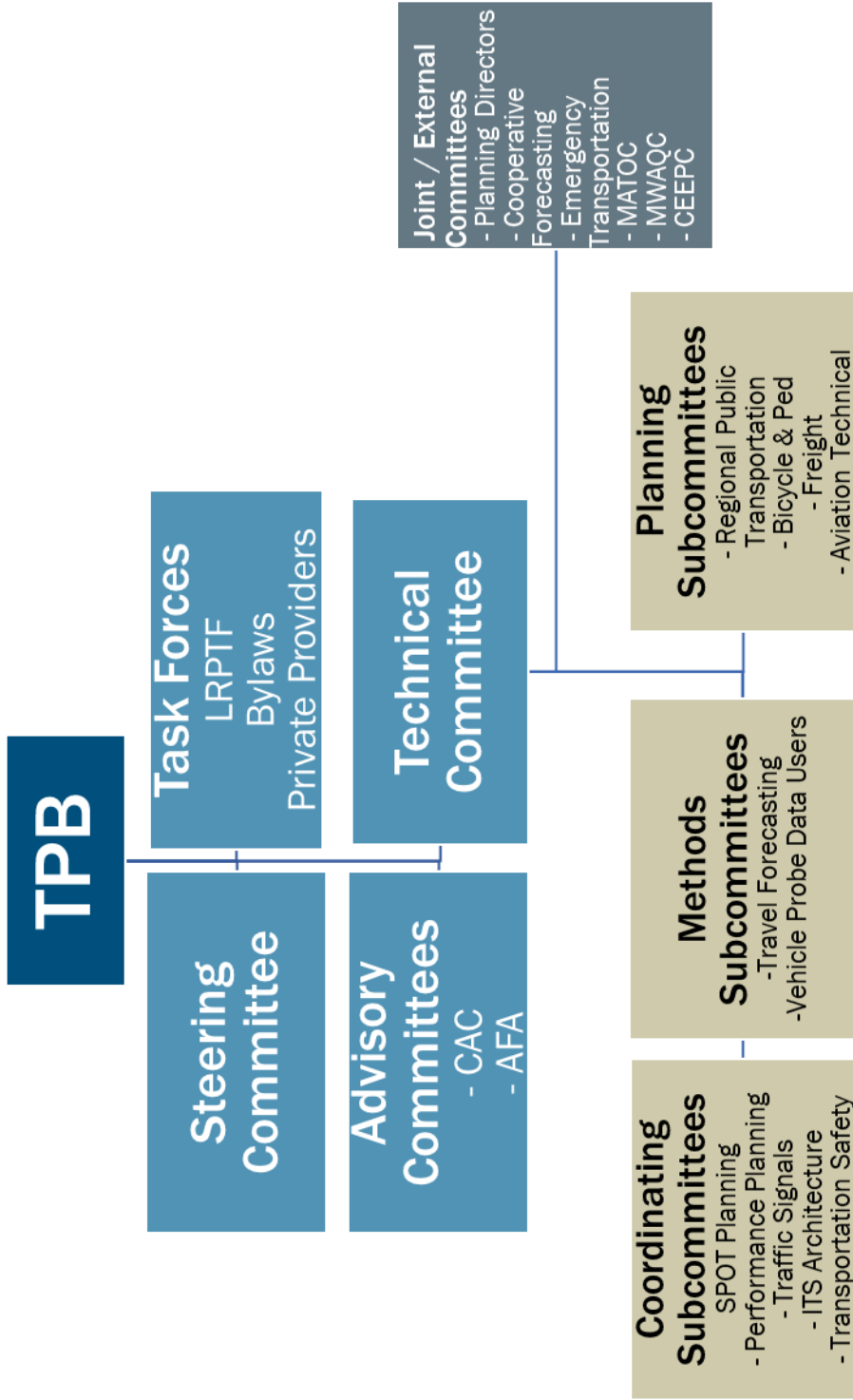
	FTA SECT 5303 80% FED & 20% STA/ LOC	FHWA PL FUNDS 80% FED & 20% STA/ LOC	FAA CASP 90% FED & 10% LOC	TOTALS
DDOT - ALLOCATIONS				
NEW FY 2020	\$538,004	\$2,299,564	\$0	\$2,837,568
PRIOR UNEXPENDED	\$123,669	\$525,112	\$0	\$648,781
CARRYOVER FY 2019	Anticipated in Feb. 2019		\$0	
SUBTOTAL - D.C	\$661,673	\$2,824,676	\$0	\$3,486,349
MDOT - ALLOCATIONS				
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
VDRPT & VDOT - ALLOCATIONS				
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
TOTAL FHWA/FTA FUNDING ALLOCATIONS				
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	
TOTAL BASIC UPWP	\$3,725,676	\$11,714,387	\$0	\$15,440,063
Continuous Air System Planning (CASP)			\$350,000	\$350,000
GRAND TOTAL UPWP	\$3,725,676	\$11,714,387	\$350,000	\$15,790,063

"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.

Figure 6: TPB Committee Structure



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**

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.