ITEM 11 – Information
January 16, 2019

Review of Outline and Preliminary Budget For the
FY 2020 Unified Planning Work Program (UPWP)

Staff Recommendation: Briefing on an outline and preliminary
budget for the UPWP.

Issues: None

Background: The board will be briefed on an outline
and preliminary budget for the UPWP for
FY 2020 (July 1, 2019 through June 30,
2020). The UPWP serves as the TPB staff
work scope for the upcoming fiscal year. A
complete draft of the FY 2020 UPWP will
be presented to the board for review at its
February 20 meeting.

MEMORANDUM

TO: Transportation Planning Board
FROM: Lyn Erickson, Plan Development and Coordination Program Director
SUBJECT: Outline and Preliminary Budget for the FY 2020 Unified Planning Work Program (UPWP)
DATE: January 10, 2019

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. The Unified Planning Work Program (UPWP) is the annual budget for TPB staff to carry out the TPB's responsibilities. This memo includes preliminary total revenue estimates for the FY 2020 UPWP, the proposed core program and technical assistance budget estimates for each work activity, and an outline of the proposed FY 2020 work tasks. This information is preliminary and will be refined over the next two months. The TPB will be asked to approve the FY 2020 UPWP at its March 20, 2019 meeting.

PRELIMINARY TOTAL UPWP REVENUE ESTIMATE

The budget for the FY 2020 UPWP is based upon Metropolitan Planning Organization (MPO) planning funding allocations provided by our three state departments of transportation (DOTs). Federal Metropolitan Planning Funds are apportioned to the state DOTs who then allocate and distribute these funds to the MPO to enable us to lead the metropolitan planning process. As with all federal funds, there is a match that is necessary to access the federal funds. In our case, 80 percent of the revenue comes from a combination of Federal Transit Administration Section 5303 funds and Federal Highway Administration metropolitan planning (PL) funds. The state DOTs provide a 10 percent state match, and the local jurisdictions, through the COG dues, provide a 10 percent local match. Federal funding amounts are authorized under the Fixing America's Surface Transportation (FAST) Act and appropriated by the U.S Congress through its annual budget.

Table 1 on the next page describes the FY 2020 revenue. There are three types of funding that are displayed in the left allocations column: new federal funding from the latest FY, called "New FY 2020"; "Prior Unexpended" funding from FY 2018; and "Carryover FY 2019" funding. The state DOTs provide the new FY 2020 funding amounts, and since we have not yet received this information, we are using the same funding amounts from FY 2019. TPB staff anticipates receiving advice on the FY 2020 federal and matching funds from the state DOTs in the coming months. "Prior Unexpended" funding is what was unexpended during the previous FY and is now available to be re-programmed. Staff has preliminarily identified expended amounts from FY 2018. Please note that these amounts noted in Table 1 are preliminary and subject to confirmation by the state transportation agencies. Finally, staff anticipates some of the funds budgeted in the current FY 2019 UPWP will be carried over to next FY 2020 UPWP, since some of the tasks will not be completed by the end of the current fiscal year. Staff expects to have more information on this next month for the Draft FY 2020 UPWP. As such, please note that the funding amounts in Table 1 will be completed and updated next month when more information is available.

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	
PRIOR UNEXPENDED	$123,670	$525,113	$0	
CARRYOVER FY 2019	Anticipated in Feb. 2019		$0	
SUBTOTAL - D.C				TBD
MDOT - ALLOCATIONS				
NEW FY 2020	$1,342,639	$3,845,380	$0	
PRIOR UNEXPENDED	$334,616	$1,008,369	$0	
CARRYOVER FY 2019	Anticipated in Feb. 2019		$0	
SUBTOTAL - MD				TBD
VDRPT & VDOT - ALLOCATIONS				
NEW FY 2020	$1,122,250	$3,245,898	$0	
PRIOR UNEXPENDED	$264,497	$790,064	$0	
CARRYOVER FY 2019	Anticipated in Feb. 2019		$0	
SUBTOTAL - VA				TBD
TOTAL FHWA/FTA FUNDING ALLOCATIONS				
SUB-TOTAL NEW FY 2020	$3,002,893	$9,390,842	$0	
SUB-TOTAL PRIOR UNEXPENDED	$722,783	$2,323,546	$0	
SUB-TOTAL CARRYOVER FY 2019	Anticipated in Feb. 2019		$0	
TOTAL BASIC UPWP	**TBD**	**TBD**		**TBD**
Continuous Air System Planning (CASP)			$350,000	$350,000
GRAND TOTAL UPWP	**TBD**	**TBD**	**$350,000**	**TBD**

"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.

PRELIMINARY CORE PROGRAM AND TECHNICAL ASSISTANCE BUDGET ESTIMATES

Table 2 outlines the UPWP budget by work task. The work activities are organized into three major subsets: the TPB Core program (the bulk of the planning activities), the state Technical Assistance (provides TPB staff support for more localized planning activities), and the Continuous Airport System Planning (CASP), which is a separate Federal Airport Authority (FAA) grant that the TPB receives and implements. Please note that Table 2 is being provided to display how the total budget will be distributed among the work activities. The funding amounts for these work activities are currently under development and will be shared in February as part of the next Draft of the FY 2020 UPWP.

Lastly, an outline describing each work task is on page 4. A description and bulleted action list for each Task follows starting on page 5.

Jan. 10, 2019

TPB

TABLE 2   PRELIMINARY FY 2020 UPWP WORK ACTIVITY BUDGETS

WORK ACTIVITY	FY 2018 TOTAL
A. CORE PROGRAMS	
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	TBD
B. TECHNICAL ASSISTANCE *	
1. District of Columbia	$0
2. Maryland	$0
3. Virginia	$0
4. Public Transportation / WMATA	$180,174
Sub-total: Technical Assistance Program	$180,174
TOTAL BASIC UPWP	TBD
C. AIR SYSTEMS PLANNING	
1. Continuous Airport System Planning (CASP)	$350,000
Sub-total: Air System Planning	$350,000
GRAND TOTAL UPWP	TBD

* Determined as a proprotion of New FY funds.

OUTLINE OF PROPOSED UPWP AND CASP WORK ACTIVITIES FOR FY 2020

1. LONG-RANGE TRANSPORTATION PLANNING

1.1 Long-Range Transportation Plan
1.2 Federal Compliance
1.3 Policy Board-Directed Activities

2. TRANSPORTATION IMPROVEMENT PROGRAM

2.1 Transportation Improvement Program (TIP)
2.2 TIP Database Support

3. PLANNING ELEMENTS

3.1 Performance-Based Planning and Programming
3.2 Congestion Management Process
3.3 Systems Performance, Operations, and Technology Planning
3.4 Transportation Emergency Preparedness Planning
3.5 Transportation Safety Planning
3.6 Bicycle and Pedestrian Planning
3.7 Regional Public Transportation Planning
3.8 Freight Planning
3.9 Metropolitan Area Transportation Operations Coordination Program Planning

4. PUBLIC PARTICIPATION

4.1 Public Participation and Outreach
4.2 Communications

5. TRAVEL FORECASTING

5.1 Network Development
5.2 Model Development

6. MOBILE EMISSIONS PLANNING

6.1 Air Quality Conformity
6.2 Mobile Emissions Analysis

7. TRAVEL MONITORING AND DATA PROGRAMS

7.1 Regional Travel Survey
7.2 Traffic Analysis Studies and Research
7.3 Regional Transportation Data Clearinghouse
7.4 GIS Data and Analysis

8. SCENARIO PLANNING AND SOCIOECONOMIC FORECASTING

8.1 Scenario Planning
8.2 Socioeconomic Forecasting

9. MOBILITY AND ENHANCEMENT PROGRAMS

9.1 Enhanced Mobility Grant Program
9.2 Transportation Alternatives Set-Aside Program
9.3 Transportation and Land Use Connections Program

10. TPB SUPPORT AND MANAGEMENT

10.1 Transportation Planning Board Committee Support and Management and Unified Planning Work Program

11. TECHNICAL ASSISTANCE

11.1 District of Columbia
11.2 Maryland
11.3 Virginia
11.4 WMATA

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)

1. LONG-RANGE TRANSPORTATION PLANNING

This task reflects activities that must be undertaken to maintain compliance with all federally related metropolitan planning activities, and it reflects all regional planning activities agreed to and directed by the Board. This activity will encompass the following work tasks in FY 2020:

<u>Long-Range Transportation Plan</u>

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.

Visualize 2045 Out-of-Cycle Plan Amendment
- Provide staff support to a potential plan amendment.

2022 Plan Update
- Develop schedule and scope for the next quadrennial transportation plan update.
- Conduct additional planning analysis to support plan development.

<u>Federal Metropolitan Transportation Planning Process Compliance</u>

- 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.

<u>Policy Board-directed activities</u>

- Carry out staff activities related to TPB Resolution R10-2019.

2. TRANSPORTATION IMPROVEMENT PROGRAM

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

- 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.

TIP Database Support

- 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

The Planning Elements task 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. 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.

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

Performance-Based Planning and Programming (PBPP)

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

- 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.

Congestion Management Process (CMP)

This task develops and maintains the regional 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.

- Compile information and undertake analysis for the development of major components of the regional CMP, including application of emerging "big data" sources.
- Develop the FY 2020 CMP Technical Report.
- Support the Vehicle Probe Data Users Group (VPDUG).

Systems Performance, Operations, and Technology (SPOT) Planning

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

- Maintain the Regional Intelligent Transportation Systems (ITS) Architecture; consider emerging connected and autonomous vehicle technology and shared mobility developments.
- Address Traffic Incident Management (TIM) as it relates to metropolitan transportation planning and RTSMO.
- Support the Systems Performance, Operations, and Technology Subcommittee (SPOTS) and the Traffic Signals Subcommittee in their coordination and advisory roles.

Transportation Emergency Preparedness Planning

This task provides support and coordination for the transportation sector's role in overall regional emergency preparedness planning, in conjunction with the Metropolitan Washington Council of Governments public safety programs.

- Support the COG Regional Emergency Support Function #1 – Emergency Transportation Committee; coordinate with members and stakeholders regarding public safety and Homeland Security-driven requirements.
- Address TIM as it relates to transportation emergency preparedness planning.

Transportation Safety Planning

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.

- Support engineering, education, and enforcement strategies to reduce fatalities, serious injuries, and crashes in the National Capital Region.
- Support the Transportation Safety Subcommittee in its coordination and advisory roles, including advising external safety studies.

Bicycle and Pedestrian Planning:

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

- Produce an updated Bicycle and Pedestrian Plan for the National Capital Region, including defining an expanded regional trails network.
- Address emerging mobility technologies, such as dockless bikesharing and electronic scooters, and their relationship to bicycle and pedestrian planning.
- Support the Bicycle and Pedestrian Subcommittee in its coordination and advisory roles.

Regional Public Transportation Planning

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

- Support the Regional Public Transportation Subcommittee in its coordination and advisory roles.
- 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.
- Provide support to private providers of transportation in the region, including organizing the annual Private Providers Annual Transit Forum.

Freight Planning

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

- Support the Freight Subcommittee in its coordination and advisory roles.
- Continue "Freight Around the Region" outreach efforts. Undertake member, stakeholder, and subject matter expert outreach to gather information to advise future planning and committee activities.

Metropolitan Area Transportation Operations Coordination (MATOC) Program Planning

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.

- Support the MATOC Steering Committee and ensure coordination between MATOC and TPB.
- Address TIM as it relates to MATOC planning.

4. PUBLIC PARTICIPATION

Public participation, outreach, and communications are essential to carrying out the continuing, cooperative, and comprehensive (3C) metropolitan transportation planning process. This activity will encompass the following work tasks in FY 2020:

Public Participation and Outreach

- 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.

- Develop written and visual materials to spread information about regional transportation planning issues, explain how transportation decision-making works, and engage the public.
- 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.

5. TRAVEL FORECASTING

This task 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:

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 Transportation Plan (LRTP). The 2018 version of the LRTP was known as Visualize 2045. There would likely also be 2019 and 2020 versions of Visualize 2045. The next major update of the LRTP is planned for 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 forms the basis for all other transit networks, including future-year networks.
- Maintain and refine the both 1) the multi-year transportation network geodatabase used in regional travel demand modeling and 2) 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.

<u>Model Development</u>

- 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,[1] and has been updated over time.[2] 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 (TRB), the Travel Modeling Improvement Program (TMIP), and the Association of Metropolitan Planning Organizations' (AMPO) Travel Modeling Work Group.

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[1] 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).

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

- 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.

6. MOBILE EMISSIONS PLANNING

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:

Air Quality Conformity Analysis

- 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.

Mobile Emissions Analysis

- Support 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. The deadline for States to submit mobile source emissions for the 2017 NEI to EPA is January 15, 2019.

- 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.

7. TRAVEL MONITORING AND DATA PROGRAMS

As the TPB considers important decisions for regional transportation planning, it is essential to have a good understanding of the latest travel trends and behavior in the region. This task includes performing technical analyses of regional travel trends, travel monitoring studies, and special research studies that support and provide key inputs into the regional travel demand forecasting model, performance-based planning and programming (PBPP), and long-range plan development.

This task also includes important regional transportation planning data development and administration functions: the Geographic Information System (GIS) and the Regional Transportation Data Clearinghouse, which are used to provide technical support across all Department of Transportation program areas.

This activity will encompass the following sub-tasks in FY 2020:

Regional Travel Survey

Data collection for the 2017-2018 Regional Travel Survey concluded in December 2018. This is a significant once-a-decade effort that provides critical data needed to inform regional transportation planning.

During FY 2020, 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.

Travel Analysis Studies and Research

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.

During FY 2020, key activities will include:

- Enhancing the regional travel trends analysis program to produce more frequent data products, reports, and presentations on various aspects of regional travel trends.
- 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.

Regional Transportation Data Clearinghouse

The Regional Transportation Data Clearinghouse (RTDC) is the online resource for transportation data, maps and applications from the TPB. This importation regional information resource will be maintained in FY2020 and will include the following activities:

- Updating Clearinghouse traffic volume data with AADT and AAWDT volume estimates, hourly directional traffic volume counts, and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.
- Updating 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.
- Updating freeway and arterial road speed and level of service data.
- Updating Clearinghouse highway network bridge and pavement condition data from most current National Bridge Inventory and Highway Performance Management System databases.
- Adding updated Cooperative Forecasting data by TAZ to the Regional Transportation Clearinghouse Data.
- Developing 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.
- Distributing RTDC data to TPB participating agencies via a GIS web-based application.

GIS Data and Analysis

This subtask covers the enhancement and administration of the TPB's Geographic Information System (GIS), which is used to support transportation planning and analyses throughout the entire Department. During FY2020, activities in will include:

- Providing data and technical support to staff using GIS for development and distribution of data and information developed for TPB planning activities, including Visualize 2045 and future long-range planning studies, the TIP, travel trends analysis, planning scenario development, Congestion Monitoring and Analysis, Cooperative Forecasting, Regional Transportation Data Clearinghouse, Network and Models Development, and Freight, Bike and Pedestrian Planning activities.
- Maintaining and updating GIS-related hardware and software used by staff for regional transportation planning activities.
- Responding to request for TPB GIS metadata, databases, and applications.
- Coordinating regional GIS activities with state DOTs, WMATA, and the local governments through COG's GIS Committees.

8. SCENARIO PLANNING AND SOCIOECONOMIC FORECASTING

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.

Activities will be grouped into two (2) sub-tasks during FY2020:

Scenario Planning

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.

Socioeconomic Forecasting

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:

- Supporting 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.

9. MOBILITY AND ENHANCEMENT PROGRAMS

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

Enhanced Mobility Grant Program

COG is the designated recipient for the FTA "Section 5310: Enhanced Mobility of Seniors and Individuals with Disabilities" program.

- 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.

Transportation Alternatives Set-Aside Program

- Conduct the selection process for small capital improvement projects using funding sub-allocated to the Washington metropolitan region through the state DOTs from the federal Transportation Alternatives Set-Aside Program (TAP).

Transportation and Land Use Connection Program (TLC)

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,

- 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.

10. TPB SUPPORT AND MANAGEMENT

This activity includes administrative support for the TPB and its committees, and for the development and management of the UPWP. This activity will encompass the following work tasks in FY 2020:

TPB Committees Support and Management and UPWP

- Make all administrative arrangements and provide staff support for TPB, the TPB Steering Committee, the State Technical Working Group, the TPB Technical Committee, and special TPB work groups meetings.
- Maintain TPB Committee membership rosters and distribution lists and prepare meeting materials for TPB Committee meetings.
- Prepare monthly TPB 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.
- Coordination of TPB Planning Activities with Program Directors.
- Day-to-day management of and allocation of staff and financial resources.
- Monitoring of all work program activities and expenditures.
- 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.
- Preparation of monthly UPWP progress reports for each of the state agencies administering planning funding and prepare all necessary federal grant applications submissions.
- Review all monthly UPWP invoices going to each of the state agencies administering planning funding.

11. TECHNICAL ASSISTANCE PROGRAM

11.a **DDOT Technical Assistance:** $283,757
11.b **MDOT Technical Assistance:** $518,802
11.c **VDOT Technical Assistance:** $436,815
11.d **WMATA Technical Assistance:** $180,174