

# FY 2023



National Capital Region  
**Transportation Planning Board**

**Work Program Progress Report**

**MARCH 2023**

**FY 2023**

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

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The TPB approved its FY 2023 Unified Planning Work Program (UPWP) in March 2022. The TPB Work Program Progress Report summarizes each activity for March. In addition, this report concludes with status updates reflecting timelines for all ongoing program plans and projects. Please reference the 2023 UPWP for details concerning the approved budget, and work description for each task. The following graphics identifies all the activities in the UPWP.

<b>1. LONG-RANGE TRANSPORTATION PLANNING</b> <ul style="list-style-type: none"> <li>1.1 Visualize 2045 Implementation</li> <li>1.2 Environmental Justice and Equity</li> <li>1.3 Future Plan Development</li> <li>1.4 Federal Compliance</li> <li>1.5 Policy Board-Directed Activities</li> </ul>	<b>7. TRANSPORTATION RESEARCH AND DATA PROGRAMS</b> <ul style="list-style-type: none"> <li>7.1 Transportation Research and Analysis</li> <li>7.2 Data Management and Visualization Services</li> </ul>
<b>2. TRANSPORTATION IMPROVEMENT PROGRAM</b> <ul style="list-style-type: none"> <li>2.1 Transportation Improvement Program</li> <li>2.2 TIP Database Support</li> </ul>	<b>8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION</b>
<b>3. PLANNING ELEMENTS</b> <ul style="list-style-type: none"> <li>3.1 Performance-Based Planning and Programming</li> <li>3.2 Congestion Management Process</li> <li>3.3 Systems Performance, Operations, and Technology Planning</li> <li>3.4 Transportation Emergency Preparedness Planning</li> <li>3.5 Transportation Safety Planning</li> <li>3.6 Bicycle and Pedestrian Planning</li> <li>3.7 Regional Public Transportation Planning</li> <li>3.8 Freight Planning</li> <li>3.9 Metropolitan Area Transportation Operations Coordination Program Planning</li> <li>3.10 Resiliency Planning</li> </ul>	<b>9. MOBILITY AND ENHANCEMENT PROGRAMS</b> <ul style="list-style-type: none"> <li>9.1 Enhanced Mobility Grant Program</li> <li>9.2 Regional Roadway Safety Program</li> <li>9.3 Transportation Alternatives Program</li> <li>9.4 Transportation and Land Use Connection Program</li> </ul>
<b>4. PUBLIC PARTICIPATION</b> <ul style="list-style-type: none"> <li>4.1 Public Participation and Outreach</li> <li>4.2 Communications</li> </ul>	<b>10. TPB MANAGEMENT AND SUPPORT</b> <ul style="list-style-type: none"> <li>10.1 TPB Committees Support and Management and UPWP</li> </ul>
<b>5. TRAVEL FORECASTING</b> <ul style="list-style-type: none"> <li>5.1 Network Development</li> <li>5.2 Model Development and Support</li> </ul>	<b>11. TECHNICAL ASSISTANCE PROGRAM</b> <ul style="list-style-type: none"> <li>11.1 DDOT</li> <li>11.2 MDOT</li> <li>11.3 VDOT</li> <li>11.4 Regional Transit Technical Assistance</li> </ul>
<b>6. MOBILE EMISSIONS PLANNING</b> <ul style="list-style-type: none"> <li>6.1 Air Quality Conformity</li> <li>6.2 Mobile Emissions Analysis</li> </ul>	<b>CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)</b>

Task 1	BUDGET	Billed this month	% Funds Expended	UPWP Page
LONG RANGE TRANSPORTATION PLANNING	\$1,122,781	\$83,823	52%	35

## **1. LONG-RANGE TRANSPORTATION PLANNING**

### ***1.1 Visualize 2045 Implementation***

There has been no activity at this time.

### ***1.2 Environmental Justice and Equity***

The Visualize 2045 Environmental Justice Analysis was presented to the TPB at the March meeting – it was rescheduled from January due to COVID.

### ***1.3 Future Plan Development***

Staff assisted local jurisdictions and agencies working on their inputs for the Visualize 2050 financial analysis, answering questions. Three individual state listening sessions were organized and conducted: DC – March 27; Virginia – March 29; and Maryland - March 30 . The purpose was to enable member agencies who submit projects to explain the process for funding and prioritizing projects. The meetings were well attended!

### ***1.4 Federal Compliance***

Staff continued to assist the federal partners in the federal certification review. The in-person meeting occurred on March 8-9. Staff provided a summary/reflections of the meeting and included some preliminary follow up information to assist the federal partners as they begin writing their report.

### ***1.5 Policy Board-Directed Activities***

There has been no activity at this time.

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	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRANSPORTATION IMPROVEMENT PROGRAM	\$428,463	\$39,174	67%	37

## **2. TRANSPORTATION IMPROVEMENT PROGRAM**

### ***2.1- Transportation Improvement Program (TIP)***

At its meeting on March 3, 2023, the TPB Steering Committee adopted four resolutions approving amendments to the FY 2023-2026 TIP as described below.

- TPB SR18-2023 – requested by DDOT to reprogram funding from the Safety Improvements Citywide and Retro-flective Backplates programs to the Traffic Signal Maintenance program and a new Traffic Safety Input program, adding a net total of \$5 million to the TIP.
- TPB SR19-2023 – requested by TPB to add \$312,000 for implementation of a “Vanpool MicroTransit Pilot Program,” funded by the FTA’s Enhancing Mobility Innovation competitive grant program.
- TPB SR19-2023 – requested by VDOT to add \$44.4 million for the VA 286 Popes Head Road interchange project, VRE’s Rolling Stock Acquisition program, and a new bus shelter program.
- TPB SR21-2023 – requested by FHWA to include 42 projects in the District, Maryland, and Virginia from FHWA’s EFLHD.

Each of the projects, programs, or phases included in these amendments were included in the most recent air quality conformity analysis of the plan and TIP or are exempt from the air quality conformity requirement.

Staff held three hour-long training sessions on the Project InfoTrak database and its use for the Visualize 2050 LRTP and FY 2025-2028 TIP inputs for the conformity analysis.

### ***2.2–TIP Database Support***

Contractor EcoInteractive, continued to provide their Software as a Solution platform, customized and branded as TPB's Project InfoTrak database application, as well as ongoing bug fixes and help desk support for staff and member agency users.

Work completed in March under the baseline maintenance and support contract included:

- Adding a new FTA funding source,
- Adding a new agency (both for project sponsorship and for user registrations),
- Updating Federal Project IDs for DDOT projects
- Reordering the Reports menu items in a logical and convenient placement.

Under an expanded contract for professional services, EcoInteractive developed and refined customizations of the software platform, and performed other specialized tasks. Work completed in March under the professional services contract included:

- Add new versions of conformity-related projects to the 25-00 and 50-00
- Update LRTP on public site to not display tables at bottom of projects
- Allow non-Admins access to Manage Overarching Projects Tool
- Allow non-Admins access to Manage Overarching Projects Tool
- Limit available OAPs in Overarching Projects Tool to match a users access rights
- Update Conformity Report to check for Conformity Records, not Model field value
- Remove negative ACCP line from Project Overview Report

Further work continued or began in March under the professional services contract:

- Add 'Municipalities' as a filter to Conformity Information and Project Description Reports
- Updates to Obligation Balance Report
- Update fields in Overarching Projects
- Add 'Component Projects' section to Overarching Projects
- Allow sponsors to amend projects that have an in progress version in a later Cycle
- Allow OAPs to have multiple lead agencies selected
- Change 'Model' field to 'Regionally Significant', limit to admins
- Update login page to ask for email instead of User ID
- Update fund ID from FASTLANE to BAB

Task 3	BUDGET	Billed this month	% Funds Expended	UPWP Page
PLANNING ELEMENTS	\$3,064,119	\$205,037	48%	39

### **3. PLANNING ELEMENTS**

#### ***3.1 Performance-Based Planning***

As part of the federal certification review, staff prepared a briefing factsheet on PBPP, delivered a briefing, and then responded to questions from the federal reviewers. Staff attended the quarterly VDOT OIPI MPO meeting.

#### ***3.2 Congestion Management Process***

The quarterly March 16 virtual meeting of the Vehicle Probe Data Users Group was organized and conducted, discussing the Probe Data Analytics Suite Causes of Congestion tool; a queueing prediction model under development for the Chesapeake Bay Bridge; and the 2017-2018 Regional Travel Survey Seven-Day Panel Evaluation.

Staff continued data compilation and analysis for upcoming Quarterly Reports.

#### ***3.3 Systems Performance, Operations, and Technology Planning***

The March 2 virtual meeting of the Systems Performance, Operations, and Technology Subcommittee (SPOTS) was organized and conducted, discussing an MDOT-SHA Transportation Systems Management and Operations Overview and Corridor Identification; a Congestion Management Process update; and a Quick Look at Thanksgiving 2022 Traffic.

#### ***3.4 Transportation Emergency Preparedness Planning***

The regularly scheduled March 8 Transportation Emergency Preparedness Committee (R-ESF 1) virtual meeting was organized and conducted, discussing current regional transportation emergency preparedness issues.

#### ***3.5 Transportation Safety Planning***

TPB staff held planning sessions on March 17 and 28 with the Transportation Safety Subcommittee Chair to identify topics and speakers for future Safety Subcommittee meetings.

#### ***3.6 Bicycle and Pedestrian Planning***

Staff organized and conducted a meeting of the Bicycle and Pedestrian Subcommittee on March 21. The Subcommittee was briefed on the DC Streatery program and the City of Frederick Bicycle and Pedestrian Plan. Staff also discussed the bicycle and pedestrian element of the Unified Planning Work Program and proposed actions for the balance of the FY 2023 UPWP. Staff reviewed the proposed actions and schedule to update the National Capital Trail Network.

Staff attended the Capital Trails Coalition Quarterly Meeting on March 22, and contacted Bike/Ped Subcommittee members regarding their jurisdictional updates to the National Capital Trail Network.

Staff reviewed and scored the FY 2024 TLC project applications and attended two selection panel meetings.

Staff served as a project monitor for two TLC projects, Independence Avenue and Montgomery County Street Lighting Design Guidelines. Staff attended an Independence Avenue TLC design workshop on March 8.

As part of Montgomery County's effort to update existing Streetlighting Design Guidelines and Specifications to align with its adopted Complete Streets and Vision Zero policies, the consultant completed a literature review. A summary of the findings was delivered on March 16.

As the project manager for Street Smart, staff attended a mandatory COG procurement training on March 23.

### ***3.7 Regional Public Transportation Planning***

The Regional Public Transportation Subcommittee met virtually in March. Agenda items included member presentations: WMATA on regional partnerships for bus priority expansion; Omniride on their zero-emissions fleet study, connect microtransit, and operations update; and MARC on their Brunswick line study and operations update. TPB staff provided an update on the high-capacity transit (HCT) map development,

Staff provided a briefing on transit in the National Capital Region to the transit caucus of the Maryland state legislature. Staff prepared for a work session scheduled for the April TPB meeting on the WMATA Better Bus effort, deferred from the original March date. Staff prepared letters of endorsement for local jurisdictions applying for federal grants.

Staff attended the monthly WMATA JCC and NVTC MAC meetings and a NVTC zero emissions bus working group meeting.

### ***3.8. Freight Planning***

The Transportation Safety Subcommittee met virtually on March 10. The agenda included a briefing by the District Department of Transportation (DDOT) on its National Electric Vehicle Infrastructure (NEVI) Deployment Plan and an update by TPB staff on the progress of the National Capital Region Freight Plan Update.

TPB staff held planning sessions on March 7 and 23 with the Freight Subcommittee Chair to identify topics and speakers for future Subcommittee meetings.

TPB staff, in coordination with the consultant team, presented a draft National Capital Region Freight Plan Update for the Subcommittee's review and comment at the March 10 Freight Subcommittee meeting.

### ***3.9 Metropolitan Area Transportation Operations Coordination Program Planning***

The regularly scheduled March 14 MATOC Severe Weather Coordination Working Group virtual meeting was organized and conducted, continuing planning and coordination for the region's winter weather response.

The regularly scheduled March 17 MATOC Steering Committee virtual meeting was organized and conducted, discussing communications, coordination, and Traffic Incident Management topics.

The regularly scheduled March 23 MATOC Operations Subcommittee virtual meeting was organized and conducted, discussing roadway operations coordination and Traffic Incident Management topics.

### ***3.10 Resiliency Planning***

Staff have begun to implement activities for this UPWP item after several months of planning and preparation. Staff continued to review materials from prior TPB transportation planning and resiliency planning activities, as well as federal resources, training materials/videos and peer MPO resiliency planning activities to keep on top of state of the practice. Transportation Planner IV presented to TPB Technical Committee on the transportation elements of Department of Defense resiliency efforts in the region and engaged the regional military installation planner from NVRC to schedule a presentation of the Northern Virginia MIRR at TPB Technical Committee meeting in June

2023, elaborating on the information touched upon in the March presentation. Transportation Planner IV attended Northern Virginia regional climate and resiliency work session at George Mason University, and henceforth organized for one of the speakers, a professor at GMU, to come present on her research and work to interested planners.

Staff received proposal from ICF for phase II of the regional transportation resiliency study, worked alongside DTP staff to evaluate proposal, provide comments, finalize the task order and send out notice of award. Staff met with various other MPOs to discuss their plans for PROTECT funding and regional transportation resiliency planning programs to both get ideas for our own program/study, but to also continue to remain informed about innovative ways to use funding mechanisms on behalf of our member localities. Staff also prepared a white paper summarizing plans for current and future transportation resiliency planning work at the TPB for the federal certification review.

Task 4	BUDGET	Billed this month	% Funds Expended	UPWP Page
PUBLIC PARTICIPATION	\$913,276	\$73,432	52%	45

#### **4. PUBLIC PARTICIPATION**

##### ***4.1 Public Participation and Outreach***

The March meeting of the 2023 - 2024 TPB Community Advisory Committee (CAC) was held on Thursday, March 9. The committee participated in a discussion with federal reviewers about TPB's public involvement process and the Visualize 2050 plan update. The meeting was held virtually on Microsoft Teams. Staff continues to implement short-term recommendations from the 2020 Public Participation Evaluation.

Staff continues to compile and share public comment from the [Visualize 2045 Initial Project List Feedback Form](#) which includes project-specific feedback on the Visualize 2045 project list for the Visualize 2050 Technical Inputs Solicitation. Staff continues to report public comments to the TPB's Technical Committee and TPB at their monthly meetings.

Staff planned outreach related to the 30-day public comment period for the Coordinated Public Transit Human Services Transportation Plan that will run from April 13 – May 13, 2023.

Staff participated in an organization-wide Title VI training.

##### ***4.2 Communications***

The following stories were featured in TPB News and in COG news releases:

#### **February 2023 TPB Meeting Recap: Visualize 2050, TPB and Commuter Connections Work**

*March 15, 2023*

- **TPB Kicks Off Visualize 2050 long-range transportation plan update**  
*March 16, 2023*
- **New TPB video spotlights recent Transportation Land-Use Connections and Regional Roadway Safety projects**  
*March 16, 2023*

Staff updated pages on the COG website related to transportation including:

- TPB Comment Form
- Getting Involved & Public Comment
- Transportation and Land-Use Connections
- TLC Technical Assistance
- Regional Roadway Safety Program
- Public Involvement Process
- Visualize 2045
- Human Service Transportation Coordination
- Access for All Advisory Committee
- Community Advisory Committee

**Staff shared information about TPB activities via social media:** Bike to Work Day (Retweet March 2), NVTa Cherry Blossom transportation (Retweet March 1), High Capacity Transit Areas (Retweet March 3), Visualize 2050 launch (March 8), Metro Minute (Retweet March 8), Long Bridge Project (Retweet March 6), Think Regionally podcast (Retweet March 13), TPB Board Meeting (March 14), Equity Emphasis Areas (Retweet March 16)

Task 5	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL FORECASTING	\$3,364,641	\$255,306	52%	47

## **5. TRAVEL FORECASTING**

### ***5.1 Network Development***

Staff held training sessions for the region's implementing agencies. The training outlined how to input Long-Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP) projects into the Project InfoTrak (PIT) database for the upcoming air quality conformity analysis of the latest LRTP, known as Visualize 2050. The PIT data will be exported to create a conformity project inputs table which will be used to update the network geodatabase, which is used to develop transportation networks used by the regional travel demand forecasting model.

Staff updated the transit fare inputs in the travel model to conduct two sensitivity tests. The first was an update of the regional bus fare matrix to reflect the District of Columbia's new free bus fare policy. Staff ran a travel demand sensitivity test to assess the impact of the new policy on travel. The second was an update of the fare inputs to reflect free fares for all transit to establish an upper limit of the impacts of fare changes on travel.

Staff responded to a request from the Washington Metropolitan Area Transit Authority (WMATA) about how transit fares are represented in the regional travel model. Staff began coding a bus and rail network scenario for a sensitivity test.

Staff continued development of a new base transit network for use in the upcoming air quality conformity (AQC) analysis of the 2024 LRTP (which is now the 2025 LRTP, due to a six-month delay in the schedule). This work included a review of downloaded and reformatted transit schedule information, stored in General Transit Feed Specification (GTFS) format. The base network reflects transit service in December 2022. Staff also plan to develop a new base transit network in FY 2024 based on the December 2023 service. In March, staff created a comprehensive match-up table



between the GTFS data and the COG transit network. Staff also created a regional GTFS true shape file which will be used to facilitate transit network editing.

Staff continued to work on an automated procedure in COGTools that will perform Quality Control/Quality Assurance (QC/QA) checks on the network files exported from the Unified Network Database. A prototype procedure was developed in December 2022 and was tested in January. Staff is working to address the comments on the testing.

Berwyn MARC Station, which was closed in 1992, is still included in the network database (Node 9022) but is not connected to any transit line. Staff investigated the issue and decided to remove the station node once the work on the current network database is completed.

### ***5.2 Model Development and Support***

The Travel Forecasting Subcommittee (TFS) meets in odd-numbered months. Staff attended the March 24 TFS meeting and started preparing meeting highlights. The main agenda topics for the March 24 meeting were:

- MPO Household Travel Surveys – State of the Practice
- COG/TPB Gen3 Travel Model: Status report
- Integration of ActivitySim and PTV Visum software
- COVID Snapshots: Summary analysis

Updating of the MWCOG model development strategic plan, last updated in 2015, is currently on hold due to other work priorities.

#### ***Generation 2/Ver. 2.4 Travel Model***

Staff developed the Gen2/Ver. 2.4.6 Travel Model, which is to be used for the upcoming 2025 update of the LRTP. This model includes six major updates relative to the current production-use Ver. 2.4 Model:

- Migrated the transit walkshed process from ArcPy to GeoPandas. Staff created a memo, dated March 6, that documents this work.
- Migrated the mode choice process from AEMS to TRANSIMS ModeChoice. Staff are documenting this work in a memo.
- Updated the bus speed degradation process so that it calculates the new degradation factors using the original factors for both the current CPI year and modeled year.
- Added a model check to make sure that each row in the transit line files does not exceed 144 columns.
- Cleaned up the transit skimming/assignment report files.
- Added the automatic shutdown option at the end of a model run.

Staff tested the Ver. 2.4.6 Model on various platforms. Staff also conducted an internal training session on March 29 regarding how to download, set up, and run the model. Staff started to update the user's guide for the Ver. 2.4 Model to reflect these changes.

In preparation for the 2025 update of the LRTP, staff started to implement changes to model code/inputs files to accommodate the new horizon year of 2050 in the Ver. 2.4 Travel Model. In March, this work is on hold and will resume after the Round 10 Cooperative Forecasts of land use data become available.

**Generation 2/Ver. 2.4 Public Transport (PT) Travel Model**

No updates.

**Generation 3 Travel Model**

Regarding the consultant-assisted project to develop the TPB's next-generation travel demand forecasting model, known as the Gen3 Model, which will be an activity-based travel model (ABM) implemented in ActivitySim software:

- COG held three check-in meetings with RSG and BMG, the consultants on the Gen3 Model development project on March 2, 16, and 30.
- RSG held a training session with COG staff on March 30 regarding Autonomous Vehicle (AV) Ownership Model calibration. RSG staff sent materials after the training. COG staff started to test the calibration process using the small-area model.
- As the Gen3 Model, Phase 2, development started in March 2022, staff continued to work with RSG on the development of the Phase 2 Model. Specifically,
  - RSG/BMG staff are working on the calibration and validation of the Gen3, Phase 2, Model. Responding to an email staff sent on March 16, RSG confirmed that they aim to match the transit ridership data within 5% for each sub Mode. Staff also requested RSG to validate the VMT in DC within 3%.
  - COG staff conducted a sensitivity test that removes one lane on facilities with two or more lanes in the AM peak period. Staff conducted the test in both the Gen2 and Gen3 models. Staff documented the testing results in a memo dated March 22.
  - Staff proposed changes for the Phase 2 sensitivity testing plan at the March 2 check-in meeting. According to the new plan, COG staff will conduct two additional sensitivity/scenario analyses using the Phase 2 Model:
    - COG staff is working on a scenario analysis related to AV. Staff will start with calibrating the AV Ownership Model to match target market shares by income segment for the horizon year.
    - Staff is also working on a scenario analysis related to equity. Staff conducted a literature review of equity related studies that MPOs have conducted using Activity-Based Models (ABMs). Based on the findings from the literature review, staff started to brainstorm about equity analysis ideas and work on a job accessibility measure for the Gen3 Model.
  - Staff proposed a methodology to integrate the toll setting process within the Gen3 Model flow. Staff implemented the proposed methodology in both the Gen2 and Gen3 models. Staff conducted test runs for base and horizon years and examined preliminary results.
  - Staff prepared the year-2045 input files for the Gen3, Phase 2 Model and outlined the list of input files in a spreadsheet.
  - Staff developed a draft of the flowcharts for the Gen3, Phase 2 Model.
  - Staff developed a spreadsheet that outlines the primary and secondary data sources for all the tables/charts contained in the visualizer html file.
  - Staff tested the “develop” branch of the Gen3 Model repository which adopts ActivitySim Version 1.2 and reported a model crash to RSG.

- COG staff continued to make enhancements and bugfixes to the Gen3 Model. Specifically, staff noticed two errors in the Aux\_Trips.bat file on March 29. RSG fixed both. Staff also noticed a few minor issues that should be cleaned up in the Gen3 Model.
- COG and RSG picked a set of dates (May 3 and 4) for the upcoming Gen3 Model Training for COG staff. RSG to propose a training agenda.

### **Software support**

Working with COG's Office of Information Technology (IT), TPB staff continued to maintain the software and hardware used to conduct travel demand forecasting and mobile emissions modeling. Hardware includes travel model servers (TMS) and mobile emissions model workstations (MEMWs) maintained at COG. Software includes Bentley Citilabs Cube, Python, Git/GitHub, R, MOVES, MySQL, MariaDB, and a travel speed post processor, implemented in Cube, for estimation of mobile emissions.

Finally, staff have continued to meet, conduct model tests, and work with IT staff to implement the migration of workstations and servers to the cloud. The migration of travel demand model and MOVES model servers to the Amazon Web Services (AWS) cloud began in December 2022, and it was completed in January 2023. TPB staff are conducting tests to ensure that the processes that used to be executed using the on-premises computers can now be executed in the cloud.

### **Other activities**

The Model Development Group did not service any data request in March.

Staff attended the MWCOG-PTV Visum Transit Overview Webinar on March 2. MWCOG and PTV staff had a follow-up call on March 29.

Staff attended the Northern Virginia Transportation Authority (NVTA) Travel Model Workshop on March 10.

Staff attended ActivitySim Consortium meetings regularly on Tuesdays and Thursdays. Staff also attended ActivitySim monthly partners-only check-in meeting on March 16.

Staff had a call with COG management on the upcoming transit scenario modeling work on March 21. Staff met with transit staff on the modeling work on March 29.

Regarding development of an ActivitySim "road map" or development plan, COG staff participated in an ActivitySim stakeholder interview with the contractor (WSP) on March 22. On March 23, staff provided a written response to the interview questions based on the staff notes prior to the interview.

Staff started to conduct daily modeling work on AWS cloud servers. Staff worked with IT to resolve issues encountered on the AWS servers. Specifically,

- Staff hold a monthly check-in meeting with IT on March 17.
- Staff investigated an incompatibility issue when running the ArcPy transit walkshed process on an AWS server. Working with IT, staff instituted a workaround by installing ArcGIS 10.1 and Cube 6.4.1 on some of the AWS servers.

- Staff encountered a random model crash on an AWS server and suspected that it was related to the distributed processing in Cube. Staff worked with Bentley staff to investigate this issue.
- As part of the investigation, staff worked with IT to set up a Virtual Machine on an on-premises server (tms5) to test Cube 6.4.1 on Windows Server 2019.
- Staff requested IT to implement automatic drive mapping when an AWS server starts.

Staff attended Title VI Training on March 16. Staff attended Procurement Basics training on March 23.

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Task 6	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILE EMISSIONS PLANNING	\$2,265,565	\$206,068	64%	51

## **6. MOBILE EMISSIONS PLANNING**

### ***6.1 Air Quality Conformity and Other Activities Associated with the Long-Range Transportation Plan***

Following the TPB's approval of the air quality conformity analysis of the 2022 Update to the Visualize 2045 Long-Range Transportation Plan (LRTP), staff continued to work on preparing additional documentation of findings and results (e.g., related to the environmental justice analysis).

Staff continued to attend coordination meetings related to scheduling tasks for the 2024 (now the 2025) update of the region's LRTP, Visualize 2050, including the air quality conformity analysis, system performance, and environmental justice analysis. This activity also included coordination of conformity timelines to synchronize with development schedules for Maintenance or Attainment State Implementation Plans (SIPs) and new Motor Vehicle Emissions Budgets (MVEBs).

Staff planned a training session for the region's implementing agencies on how to input LRTP and TIP projects into the Project InfoTrak (PIT) database for the upcoming air quality conformity analysis of Visualize 2050. Staff held the final two of three training sessions.

In accordance with the TPB consultation procedures, staff forwarded to the consultation agencies and public advisory committees the TPB meeting agenda and a summary memo regarding the monthly TPB meeting and air quality conformity consultation elements.

### ***6.2 Mobile Emissions Analysis, Including Activities Associated with Climate Change Planning***

Staff from COG's Department of Environmental Programs (DEP) and COG's Department of Transportation Planning (TPB staff) continued to coordinate with state air agencies on plans related to the update of motor vehicle emissions budgets (MVEBs) associated with the 2008 Ozone Maintenance State Implementation Plan (SIP). This MVEB update is being conducted to ensure that the tools used to develop future air quality conformity emissions estimates are consistent with the tools used to develop the MVEBs - i.e., that both are based on the current MOVES3 model. TPB staff documented the 2025 and 2030 onroad inventory development process used in this update to the region's 2008 Ozone Maintenance SIP and transmitted the data and a memorandum to DEP staff. TPB staff also prepared a technical memorandum and a slide deck, and presented the MOVES3-estimated emissions inventories with recommended MVEBs for the 2025 and 2030 forecast years for the plan to the Metropolitan Washington Air Quality Committee-Technical Advisory Committee (MWAQC-TAC, item #2). The recommended MVEBs included a 20% safety margin beyond the

inventory levels, designed to account for any future uncertainties. Under the same item, DEP staff briefed MWAQC-TAC on the results of onroad and nonroad emissions inventory analyses, discussed the ongoing coordination with the EPA, and updated the members on the plan schedule.

Staff shared a memo with the TPB Technical Committee about EPA's Clean Data Determination (CDD) for the region. EPA certified that the region's air meets the 2015 Ozone Standard and issued a CDD, allowing the region to move forward with a redesignation request and maintenance SIP related to the 2015 Ozone Standard.

TPB staff continued to work with DEP staff, member jurisdictions, and state air agencies to facilitate various aspects of air quality and climate change planning activities in the region. Staff continued to conduct meetings with the state departments of transportation to coordinate activities related to the Carbon Reduction Program (CRP). This program, recently established by the Bipartisan Infrastructure Law (BIL), provides funds for projects designed to reduce on-road transportation emissions. Specifically, staff attended Maryland Department of Transportation's (MDOT's) overview of Maryland's Carbon Reduction Strategy (CRS).

Staff also continued to participate in electric vehicle (EV) planning activities. DEP staff and TPB staff held internal planning meetings for the Regional Electric Vehicle Deployment (REVD) Working Group and the first REVD Working Group meeting. In support of this activity, staff held internal meetings to prepare for the Regional Electric Vehicle Deployment Plan for Metropolitan Washington project, whose purpose will be to assess the infrastructure needs across the region to support the transition of light-duty vehicles from fossil fuel to electric power.

In support of EV and climate mitigation planning, staff attended relevant webinars/workshops, including an ICF (consultant) presentation on electric vehicle projections and an ICF presentation on EV infrastructure mapping for Prince George's County. Staff also developed awareness of two new federal grant programs – Climate Pollution Reduction Program (CPRG) and Charging and Fueling Infrastructure (CFI) Discretionary Grant Program – and attended webinars on CPRG (by the EPA, National Association of Counties, and Mid-Atlantic Diesel Collaborative).

In support of the greenhouse gas (GHG) inventory development for the City of Falls Church. TPB staff worked with the DEP staff to provide Fairfax County vehicle population data used in the MOVES model to the COG consultant working on the project.

In support of project planning work activities in the District of Columbia, staff provided MOVES input data for the District of Columbia developed for the 2022 Update to Visualize 2045 to a District of Columbia's Department of Energy and Environment consultant.

In support of the software development activities conducted by the U.S. Department of Transportation, TPB staff completed beta-testing of the Shared Micromobility tool in the Congestion Mitigation and Air Quality Emissions (CMAQ) Calculator Toolkit and provided staff findings to the Volpe National Transportation Center.

As the version of MOVES that was last used in the air quality conformity analysis (MOVES2014b) cannot be used for these types of analyses starting with January 2023, TPB staff continued to conduct MOVES model tests using the most recent model version (MOVES3.0.4) and evaluate the impacts of new software on both criteria pollutants and GHGs.

Task 7	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL MONITORING AND DATA PROGRAMS	\$2,609,577	\$133,521	44%	53

## **7. TRAVEL MONITORING AND DATA PROGRAMS**

### ***7.1 Transportation Research and Analysis***

- COG/TPB staff delivered a presentation on the Regional Travel Survey 7-Day Smartphone Panel Survey to the TPB Vehicle Probe Data User Group on March 16.
- COG/TPB staff delivered a presentation on MPO Household Travel Surveys – State of the Practice to the TPB Technical Committee on March 3 and March 24. These presentations were accompanied by a memorandum.
- Staff presented the findings of an analysis of regional trail count data from before, during, and after the pandemic at the March 3 TPB Technical Committee meeting and the March 21 Commuter Connections Subcommittee meeting.
- Staff prepared and provided update on completed and planned travel research and analysis activities that support the mission of the metropolitan transportation planning process as part of the Federal Certification Review Process.
- Staff coordinated with the models team and drafted recommendations for regional coordination on transit trip data collection.
- Staff analyzed day of week traffic at the region's continuous counting stations in May, June, September, and October of 2022. Staff presented this analysis along with the Covid Travel Monitoring Snapshots at the March 24 Travel Forecasting Subcommittee meeting.
- After learning from MD SHA staff that some roadway counting sections in Maryland have been combined, staff continued the process to identify the appropriate volumes to assign to the network links that had previously been assigned volumes from the combined sections.
- Staff met with other Planning Data and Research Program staff to provide guidance on visualizing Vehicle Miles Traveled (VMT) data in the modeled region.
- Staff developed vehicle miles traveled per capita estimates with the latest data
- Staff provided the geodatabase of 24-hour Active Transportation Counts prepared for VDOT since 2019 for use in the Regional Transportation Data Clearinghouse
- Staff supported planning for the American Planning Association's Regional and Intergovernmental Division's Regional Futures Forum.
- Staff examined changes in urban/urbanized area designations in the National Capital Region between 2010 and 2020 and prepared discussion points for the April meeting of the State Technical Working Group.

#### **Data Requests**

- Staff fielded two RTS data requests from Northern Virginia Transit Authority and the University of Illinois-Urbana Champaign.
- Staff fielded a 2007/08 HTS data request from George Mason University.

#### **Meetings & Conferences**

- Staff attended the Federal Certification Review.
- Staff participated in the NextGen National Household Travel Survey Technical Advisory Committee meetings.

- Staff participated in biweekly meetings with the Gen3 Model Development Team.
- Staff attended a town hall on the Office of Management and Budget's proposal for race and ethnicity data standards.
- Staff attended Title VI compliance training.
- Staff participated in the AMPO Socioeconomic Forecasting Quarter 1 meeting.
- Staff met with the National Park Service to discuss their work on a trail count program.

### ***7.2 Data Management and Visualization Services***

- Staff reviewed the proposal from TPB's consultant, ICF, for the Phase II Transportation Resiliency Study, specifically the sections related to data collection and mapping. Staff provided written comments to TPB's resiliency planner.
- Staff continued to provide guidance and support to the TPB's Transportation and Land Use Connections (TLC) intern, to update the geospatial data used on the TLC/TAP maps and application. Staff provided feedback to the intern on further updates needed to the geospatial dataset and are awaiting response.
- Staff met with staff from the Plan Development and Coordination team to discuss the comparison of TPB's Equity Emphasis Areas geography with the and Justice 40
- Staff worked with fellow staff to publish the results of the Voices of the Region (VOR) Survey to the Regional Transportation Data Clearinghouse (RTDC). Staff created a downloadable file containing the VOR codebook and survey results deliverable.
- Staff provided staff from the System Performance team with a GIS export from TPB's Project InfoTrak (PIT) database to use in the analysis of long-range plan and TIP projects that are on or adjacent to TPB's identified Freight Significant Highway Network.
- Staff continued to support the Commuter Connections staff to make corrections and adjustments (received from event sponsors and partner agencies) to the Bike to Work Day pit stop map.
- Staff worked with Commuter Connections staff to document and troubleshoot map service publishing inconsistencies.
- Staff continued to request average weekday transit ridership from regional transit providers and follow up with specific providers to request outstanding data from previous requests.
- Staff worked on updating the Vehicle Miles Traveled (VMT) data available in the RTDC. Staff prepared comments and questions on the process and proposed visualization opportunities to the Planning Research and Assistance (PRA) team. This work is ongoing.
- Staff advised staff from COG's Department of Environmental Programs (DEP) on sources for spatial data related to a forthcoming consultant supported project to identify EV infrastructure sites in the region.
- Staff continued to perform administrative updates for TPB/COG's ArcGIS Online organizational account, including managing users, adding account access, and organizing content.
- Staff performed geospatial comparisons of the changes in urban/urbanized area designations in the National Capital Region between 2010 and 2020.
- Staff prepared and provided update on completed and planned research and visualization activities that support the mission of the metropolitan transportation planning process as part of the Federal Certification Review Process

### **GIS Committee/GDX Working Group**

Staff planned and participated in the March 21 GIS Committee/GDX Working Group virtual meeting. Highlights of the meeting included: a presentation on ESRI Security solution and food assistance geospatial data layer project as well as the regular updates from NextGen 911 and CAD2GIS.

Data Requests

Staff responded to a request from a consultant for TPB's Equity Emphasis Areas (EEA). Staff directed the requestor to the "All Data for Equity Emphasis Areas (2016-2020 ACS)" dataset in the RTDC.

Meetings & Conferences

- Staff attended the TPB Freight Subcommittee meeting on March 10.
- Staff attended the March 14 meeting of the Cooperative Forecast and Data Subcommittee.
- Staff attended and participated in the Maryland State Geographic Information Committee (MSGIC) executive meeting in March.
- Staff attended the March 14 meeting of the Cooperative Forecast and Data Subcommittee.
- Staff attended the March 16 meeting of the TPB Vehicle Probe Data Users Group.
- Staff attended the March 21 meeting of the Bicycle and Pedestrian Subcommittee.
- Staff presented at the March 28 meeting of the TPB Regional Public Transportation Subcommittee (RPTS).
- Staff participated in meetings and email exchanges with the Travel Forecasting and Emissions Analysis Program team and their contractor, RSG.

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Task 8	BUDGET	Billed this month	% Funds Expended	UPWP Page
REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION	\$1,165,429	\$100,432	63%	57

**8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION*****8.1 Regional Land Use and Transportation Coordination***

- Staff continued work on reconciliation of the Round 10 econometric model and the revised draft jurisdictional projections. After receiving more revised forecasts in early March, DCPS staff prepared and presented an updated assessment of the draft Round 10 jurisdictional forecasts at the March 14 Cooperative Forecasting and Data Subcommittee Meeting.
- Staff presented the COG Housing Targets work to the Montgomery County Council Planning and Housing Work Group at their meeting on March 27 in Rockville.
- Staff continued to update the PowerPoint presentation that documents the effects to date of COVID on the region's economy.
- DCPS staff continued work to acquire the 2022 CoStar construction data in preparation for development of the annual Commercial Construction Indicators report.
- Staff produced the March Regional Economic Monitoring System Report (REMS).
- Staff prepared and provided update on regional land use and transportation planning coordination activities that support the mission of the metropolitan transportation planning process as part of the Federal Certification Review Process.



Task 9	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILITY AND ENHANCEMENT PROGRAMS	\$1,082,497	\$116,137	39%	59

## **9. MOBILITY AND ENHANCEMENT PROGRAMS**

### ***9.1 Enhanced Mobility Grant Program***

Staff finalized the Listing of Specialized Services required for the Coordinated Plan, prepared a final draft shared with AFA committee members for additional review, and prepared for public comment of the Coordinated Plan on April 13, 2023. Staff also began preparing materials for upcoming presentations of the 2023 Update to the Coordinated Plan to the Transportation Planning Board, TPB Technical Committee, TPB Access for All Advisory Committee, and TPB Community Advisory Committee.

### ***9.2 Regional Roadway Safety Program***

The application period for the FY 2024 Regional Roadway Safety Program launched on January 6 and closed on March 3. TPB staff then analyzed the application against program priorities and began coordination with the Selection Panel to score and select projects to recommend for TPB approval.

Each of the four (4) FY 2023 projects is currently underway with progress as follows.

- VA (City of Alexandria – Duke Street Safety Improvements) – The consultant reviewed and summarized public survey comments, held a walk audit debrief with City of Alexandria staff, and held a virtual design workshop with City staff.
- MD (Maryland National Capital Park and Planning Commission/M-NCPPC – Walker Mill Road Improvements) – The consultant coordinated with M-NCPPC staff in preparation for a public meeting.
- MD (Prince George’s County – Pedestrian Road Safety Audits) – The consultant coordinated and conducted an audit of the project site with County staff and stakeholders.
- MD (City of Rockville Beall Avenue Feasibility Study) – The consultant completed and delivered an existing condition report to City staff and began to develop potential recommended strategies for the intersection and corridor.

Three of the five FY 2022 RRSP projects are complete, and progress of the remaining two projects are described below:

- VA/MD (Arlington & Prince George’s Counties - Traffic Safety Gardens) – The consultant team delivered a final guide to Arlington and Prince George’s County staff. This project is complete.
- VA (Fairfax County – Harrison Road Improvements) – The consultant delivered a draft final report to Fairfax County staff for review.

### ***9.3 Transportation Alternatives Set-Aside Program***

Staff continued preparing for the next TAP application period, for Maryland, which will begin in April. Among other things, staff conducted a survey of recent TAP recipients to potentially identify projects that might be ready for follow-up grant funding.

#### ***9.4 Transportation/Land-Use Connections (TLC) Program***

Work on all 11 TLC projects for FY 2023 was underway. See below:

- Safe Routes to School Walk Audits Phase 2 (Alexandria) - Contractor and City staff received over 400 comment forms from students. Elementary and middle school walk audits are scheduled for 3/21 and 3/29. The high school audit will be scheduled for April. The contractor prepared an information flyer and social media posts for distribution.
- Independence Avenue Corridor Study (DC) - A design workshop was held on March 8, and various design alternatives were presented and discussed. This project is on schedule.
- Delivery Microhub Feasibility Study (DC) - The consultant team refined a technical memo on site selection criteria, which was discussed and edited.
- New Design Road Bikeway Study (Frederick Co) - The project was completed in February.
- Olde Towne to Washington Grove Bicycles Connection (Gaithersburg) - The city requested a list of pros/cons and cost estimations for each concept alternative. The city planning staff also provided a list of comments on the concept alternatives and shared it with the contractor.
- Active Transportation Study (Manassas Park) - The consultant and city staff finalized "recommendations" maps. The consultant also conducted a prioritization analysis and a high-level cost estimate in March.
- Montgomery Co Streetlight Standards (Montgomery Co) - Consultant completed draft findings and recommendations, which were delivered to Montgomery County on March 16.
- Commuter Garage First-/Last-Mile Study (Prince William Co) - Monthly meeting was held where consultant provided updates and discussed a revised project timeline. During the meeting, the consultant went over the first Technical Memorandum. This memo was shared with Prince William County for review. The consultant asked for comments back by March 24.
- Fleet & Monroe Streets Complete Streets Feasibility Study (Rockville) - The consultant team analyzed the existing conditions data, including traffic counts and details from the site visit, and prepared three alternatives for adding complete streets facilities to Fleet and Monroe Streets. The alternatives include a bi-directional cycle track, and two variations of a wide shared-use path along both streets. These draft concepts were shared with City, MCDOT, and MDOT SHA staff. The consultant collected comments and is currently incorporating them into updated concepts that will be shared with the public.
- Takoma Park Metropolitan Branch Trail Upgrade (Takoma Park) - A virtual community meeting was held on March 2. The contractor received results from the community feedback survey as well as City and stakeholder feedback on the preliminary design and began working on the draft concept report.
- New Ave Bikeway - District Connector (Takoma Park) - A virtual community meeting was held on March 2. The contractor received results from the community feedback survey as well as City and stakeholder feedback on the preliminary design and began working on the draft concept report.

The FY 2024 TLC application period closed on March 3. A total of 16 applications were received. In March, staff conducted research on the applications and conducted site visits. Staff sent relevant information to the TLC Selection Panel and scheduled two meetings for the panel. The panel members reviewed and scored the applications. The panel met on March 28 and 31, and ultimately selected 10 projects for funding. The TPB was scheduled to approve them on April 19.

Staff continued planning for a peer exchange event, which will feature TLC projects, as well as RRSP and TWR projects, that were completed in calendar year 2022. The peer exchange event, which will be conducted online, was scheduled for April 20.

Task 10	BUDGET	Billed this month	% Funds Expended	UPWP Page
TPB MANAGEMENT AND SUPPORT	\$989,546	\$49,745	43%	61

## **10. TPB MANAGEMENT AND SUPPORT**

This task includes activities not attributable to specific tasks in the work program but provides overall support for and management of the TPB and UPWP related activities.

- Provide administrative arrangements (such as preparation and distribution of meeting materials) and staff support for TPB and its various Committees, Sub-Committees, Task Forces and special TPB work groups meetings.
- Respond to 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.
- Participate in meeting of other agencies whose programs and activities relate to and impact the TPB work program
- Coordination of TPB Planning Activities with Program Directors and day-to-day management of and allocation of staff and financial resources.
- Monitoring of all work program activities and expenditures.

Staff support was provided for the monthly meetings of the following committees and subcommittees:

- State Technical Working Group (STWG)
- TPB Technical Committee
- TPB Steering Committee
- MWCOC Board meetings
- Transportation Planning Board (TPB)
- MATOC Steering Committee
- TPB Community Advisory Committee (CAC)
- Access for All (AFA)
- Regional Public Transportation Subcommittee (RPTS)
- Bicycle & Pedestrian Subcommittee
- COG Planning Directors
- TPB Freight Subcommittees
- CAOs Monthly
- System Performance Operation & Technology Subcommittee (SPOTS)

The Staff Director provided overall program management oversight to all the Department's activities. Work activities the Director was involved in during the month of March FY 2023 includes:

- Discussions, review, and finalization of the agenda topics for the TPB's Technical Committee, State Transportation Working Group (STWG) and Board meetings. This includes meeting with the Program Directors and project staff to review the progress and briefing materials with the Program Directors and project staff to review the progress and briefing materials.
- Participation in the STWG, TPB Technical, TPB Steering Committee, TPB's Citizen's Advisory Committee and the TPB Board Meetings.

Other additional activities for the TPB Staff Director for the month of February FY 2023 includes Telephone / Web Ex / Microsoft Teams Communications:

- HAPP Check-in – P. DesJardin
- Federal Certification Meeting Prep- L. Erickson
- Maryland Transit Caucus Review – E. Randal
- CRS Discussion – MDOT / S. Kiernan
- MD General Assembly Transit Caucus Briefing
- Federal Certification Review – March 8&9
- EXTRL Meeting – C.Mercer & R. Clarke
- Technical Assistance TEAMS Meeting w/WMATA
- Call w/ R. Collins – TPB Chair
- TPB/WMATA Follow-up
- Call w/ E. Glass – Montgomery County
- TPB Visualize 2050 Schedule – K. Umstattd / Loudoun County
- WMATA / MSC Meeting
- Regional Electric Vehicle Deployment Working Group – R. Christopher
- Title VI Training – S. Pandak
- Major Metros Roundtable – E. Zimmerman
- MDOT Transportation Secretary @ Head Office – P. Wiedefeld
- Procurement Basics – R. Konrad
- COG Board Executive Meeting
- TPB Visualize 2050 Listening Session
- Virginia Visualize 2050 Proposed Projects
- Maryland Visualize 2050 Proposed Projects
- SYIP & Legislated Joint Meeting (District 8)

### **UPWP**

The UPWP activities include: Supervise the preparation, negotiation, and approval of the annual work program and budget involving the State Transportation Agencies, the TPB Technical Committee, the TPB 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.

Task 11	BUDGET	Billed this month	% Funds Expended	UPWP Page
TECHNICAL ASSISTANCE	\$1,614,739	\$19,711	22%	63
District of Columbia	\$329,633	\$1,074	6%	63
Maryland	\$492,970	\$1,074	23%	65
Virginia	\$384,846	\$5,602	21%	68
Regional Transit	\$407,288	\$11,969	33%	71

## **11. TECHNICAL ASSISTANCE**

### ***11.A District of Columbia***

#### **1. Program Development, Data Requests and Miscellaneous Services**

Staff attended the monthly State Technical Working Group/Technical Committee/Steering Committee/TPB meeting cycle.

Staff reached out to DDOT with a preliminary budget identifying projects for FY 2024.

#### **2. Regional Roadway Safety Program**

As part of the Regional Roadway Safety Program, technical assistance projects were partially funded under the District of Columbia Technical Assistance Program. See Regional Roadway Safety program section of this progress report for more details.

#### **3. Transportation / Land Use Connections Program**

As part of the Transportation/Land-Use Connections Program (TLC), a technical assistance project was partially funded by the District of Columbia Technical Assistance Program. See TLC item above for further details about this program.

#### **4. Other Tasks to Be Defined**

No activity.

### ***11.B Maryland***

#### **1. Program Development, Data Requests, and Miscellaneous Services**

Staff attended the monthly State Technical Working Group/Technical Committee/Steering Committee/TPB meeting cycle.

Staff reached out to MDOT with a preliminary budget identifying projects for FY 2024 and confirmed the contribution level for the Transportation/Land Use Connections Program.

#### **2. Project Planning, Feasibility, and Special Studies**

No activity.

#### **3. Transportation / Land Use Connections Program**

As part of the Transportation/Land-Use Connections Program (TLC), technical assistance projects in Maryland were fully or partially funded through the Maryland Technical Assistance Program. See TLC item above for further details about the program.

#### **4. Regional Roadway Safety Program**

As part of the Regional Roadway Safety Program, technical assistance projects were partially funded under the Maryland Technical Assistance Program. See Regional Roadway Safety program section of this progress report for more details.

#### 5. Other Tasks to be defined

No activity.

### ***11.C Virginia***

#### 1. Program Development, Data Requests, and Miscellaneous Services

Staff attended the monthly State Technical Working Group/Technical Committee/Steering Committee/TPB meeting cycle.

Staff reached out to VDOT with a preliminary budget identifying projects for FY 2024 and confirmed the contribution level for the Transportation/Land Use Connections Program.

Staff reached out to NVTC to confirm commitment to conduct I-66/I-395 Mode Share Study in FY 2024.

Staff followed up with VDOT on preliminary material (scope of work and memo with outline for project) to VDOT for the permanent count station data validation program and provided clarification of anticipated number of traffic counts that could be funded in FY 2024.

#### 2. Travel Monitoring and Survey

##### *Active Transportation Counts*

Staff began the analysis of the fall 2022 active transportation counts.

After meeting with VDOT staff to finalize the Tysons area counting locations, staff prepared and issued the task order for consultant services to conduct the spring 2023 active transportation counts.

#### 3. Travel Demand Modeling

No activity.

#### 4. Transportation / Land-Use Connections Program

As part of the Transportation/Land-Use Connections (TLC) Program, technical assistance projects in Virginia were fully or partially funded under the Virginia Technical Assistance Program. See TLC Program section of this progress report for more details.

#### 5. Regional Roadway Safety Program

As part of the Regional Roadway Safety Program, technical assistance projects were partially funded under the Virginia Technical Assistance Program. See Regional Roadway Safety program section of this progress report for more details.

#### 6. Other Tasks to be Defined

No activity.

### ***11.D Regional Transit***

#### 1. Program Development, Data Requests, and Miscellaneous

Staff attended the monthly State Technical Working Group/Technical Committee/Steering Committee/TPB meeting cycle.

## 2. Transit Within Reach

Staff continued to prepare for the FY24/25 project solicitation period.

## 3. High-Capacity Transit Map

As a follow up to a memo delivered to the Regional Public Transportation Subcommittee in February, staff delivered a presentation during March to describe the need to clarify the definition criteria for bus rapid transit (BRT).

## 4. Other Tasks to be Defined

No activity.

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## **CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM**

### Program Management

- Staff provided an update on the 2023 APS to the Aviation Technical Subcommittee on March 23.
- Staff interviewed a candidate for the Regional Airport System Planner position and continued to review applications.
- Staff provided clarification to the FAA on a description of the timing for Air Passenger Survey.
- Staff updated the monthly enplanement data.

### Conduct and Process 2022/23 Baltimore-Washington Regional Air Passenger Survey (APS), Phase 1

- Staff developed the sampled flights for the 2023 APS pretest based the sampling plan.
- Staff updated the technical memo of the 2023 APS sampling plan process.
- Staff reviewed the 2023 APS pretest dashboard and provided feedback.
- Staff tested the 2023 APS web survey and provided feedback.
- Staff reviewed the printed materials for the 2023 APS pretest and provided feedback.
- Staff reviewed the pretest operations plan for the 2023 APS and provided feedback.
- Staff reviewed the 2023 APS survey incentive distribution plan and provided feedback.
- Staff coordinated with MWAA staff to announce the 2023 APS pretest and full-scale survey.
- Staff coordinated with MWAA staff to provide a secured room for the 2023 APS pretest.
- Staff participated in biweekly meetings with ICF for the 2023 APS
- Staff prepared a summary of the project for the TPB Director's report and shared an update about the project with the TPB Technical Committee

### Air Cargo Element Update

- Staff attended the March 10<sup>th</sup> Freight Subcommittee meeting to hear the update on the 2023 Freight Plan.
- Staff delivered a presentation on air cargo and enplanement patterns before, during, and after the pandemic to the Aviation Technical Subcommittee on March 23. After this meeting, Staff shared slides from the presentation with TPB Freight staff and staff at the Thurgood Marshall Baltimore-Washington International Airport.

### Ground Access Travel Time Study

- Staff continued developing the road network for the Ground Access Travel Time Update.

## **PROGRESS ON PLAN PRODUCTS**

### **Task 5. Travel Forecasting**

1. Staffing the TPB Travel Forecasting Subcommittee (TFS)
  - a. Five of six annual meetings have been held.
  - b. Dates of meetings held in FY 23: 7/22/22, 9/23/22, 11/18/22, 1/27/23, and 3/24/23.
2. A series of highway and transit networks used by the regional travel demand forecasting model, together with technical documentation, for use in air quality conformity analyses, development of air quality state implementation plans (SIPs), scenario studies, and model development.
  - a. COGTools software and geodatabase
    - i. Added features: Staff developed a new Station Management module. Staff made updates to the transit agency drop-down menu.
    - ii. Bug fixes: Implemented a fix so that records in the transit line files do not extend past the 144-column limit.
    - iii. Staff developed an automated procedure in COGTools that will perform QA/QC checks on transportation network files exported from the Unified Network Database.
  - b. Detected network coding error, known as the 15000-series node error, which blocked some park-and-ride (PNR) and kiss-and-ride (KNR) access to some bus nodes. Staff has corrected all the transit networks used in the air quality conformity (AQC) analysis. Based on tests, the error does not have a material effect on the AQC analysis. Nonetheless, staff has re-run all the model years and has prepared an updated transmittal package, dated November 14, that includes the model and model inputs (networks and land use data).
3. Development, maintenance, support, and improvement of the COG/TPB regional travel demand forecasting methods, including both the production-use and developmental travel models, and associated documentation.
  - a. Gen2/Ver. 2.4 Travel Model
    - i. Staff created loaded-link highway network shapefiles from the latest Ver. 2.4 Travel Model for all scenario years in preparation for future data requests.
    - ii. Staff completed testing the TRANSIMS ModeChoice software (Ver. 7.5.7) in the Gen2/Ver. 2.4 Model and recommended its use in the next release of the Ver. 2.4 Model, in place of the outdated AEMS software.
    - iii. Staff developed a transit walkshed generation process in Python based on GeoPandas and recommends its use in the next release of the Ver. 2.4 Model.
    - iv. In preparation for the upcoming 2024 LRTP (Visualize 2050), staff implemented changes to model code/input files to accommodate the new horizon year of 2050.
    - v. Staff created a new version of the production-use travel model with six updates, including the processes used for mode choice and for generating transit walksheds. The new model is called Gen2/Ver. 2.4.6.
  - b. Gen3, Phase 1 Travel Model
    - i. Staff updated summary scripts and investigated the model's apparent insensitivity to changes in tolls. RSG addressed the time-of-day insensitivity issue.
    - ii. Staff implemented an enhancement in the model to automatically extract the scenario name and create an empty outputs folder with the required file structure.



- iii. Staff developed a “mini” version of the Gen3, Phase 1, Model for functionality tests. The “mini” version has a much smaller footprint on the servers in terms of runtime and storage space used.
  - c. Gen3, Phase 2 Travel Model
    - i. Updated auxiliary travel models. Estimated auto ownership model. Proposed changes to transit path building to deal with a hyper-path problem.
    - ii. COG staff estimated three component models as part of the Phase 2 model development.
    - iii. COG staff conducted two sensitivity tests:
      - 1. Increasing the AM travel time and travel cost skims by 20%.
      - 2. Removing one lane on all road segments with two or more lanes in the AM peak period.
  - d. Webpages: Updated webpages in July and November 2022 to reflect updates to travel models.
  - e. Travel model-related data requests: This fiscal year, staff have responded to 27 data requests.
- 4. Keep abreast of best practices in travel demand modeling.
  - a. Staff following developments from the Transportation Research Board (TRB) and the U.S. DOT Travel Model Improvement Program (TMIP) email distribution list.
  - b. Staff attended and presented at the Association of Metropolitan Planning Organizations (AMPO) Annual Conference, Oct. 25-28, 2022, in Minneapolis, Minnesota.
  - c. Staff attended the 2023 Annual Meeting of the Transportation Research Board (TRB), held in Washington, D.C., from January 8-12, 2023.

#### **Task 6. Mobile Emissions Planning**

- 1. . Activities related to conducting regional air quality conformity analyses, such as conducting runs of the travel model and mobile emissions model and preparing technical documentation.
  - a. Staff finalized documentation regarding the air quality conformity analysis of the 2022 Update to Visualize 2045.
  - b. Staff provided information from the regional travel demand forecasting model to the environmental justice analysis conducted on the LRTP.
- 2. Keep abreast of federal requirements related to air quality conformity determinations and the EPA’s Motor Vehicle Emission Simulator (MOVES) software.
  - a. Staff have conducted tests of EPA’s new mobile emissions modeling software, MOVES3. Based on these findings, technical staff from the metropolitan Washington region agreed that, for the time being, MOVES3.0.4, rather than MOVES3.1, would be used in the upcoming SIP and air quality conformity modeling (and this is acceptable since MOVES3.1 is considered a minor model update).
  - b. After reviewing EPA’s new heavy-duty truck final rule entitled “Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards,” which was published on December 20, 2022, staff summarized the rule in a memo which was shared with the TPB as part of the director’s report.
- 3. Support development of an Attainment/Maintenance State Implementation Plans (SIPs) regarding both the 2008 and 2015 ozone National Ambient Air Quality Standards (NAAQS), including developing inventories of on-road mobile emissions for volatile organic compounds (VOC) and nitrogen oxides (NOx).
  - a. TPB staff continued to coordinate with COG DEP staff and state air agencies on plans related to development of the Attainment SIP and Maintenance Plan/Redesignation Request to address requirements of the 2015 Ozone NAAQS.

4. Coordinate with MWAQC and its subcommittees to support development of new motor vehicle emissions budgets (MVEBs), if needed, to address requirements of 2008 and 2015 ozone NAAQS.
  - a. Staff has prepared new/updated Motor Vehicle Emissions Budgets (MVEBs) associated with developing a 2008 Ozone Maintenance Plan and shared these with COG DEP staff.
5. Climate Change Planning: Provide support for efforts to mitigate climate change due to the on-road transportation sector.
  - a. July 27, 2022: TPB staff briefed the Climate, Energy and Environment Policy Committee (CEEPC) on the TPB Climate Goals and Strategies adopted by the board in June 2022.
  - b. Staff continued to assess the potential impacts of the recently released Notice of Proposed Rulemaking (NPRM) for the Performance-Based Planning and Programming (PBPP) Greenhouse Gas performance measure and target setting. Staff has prepared a draft comment letter in September, which should be finalized in October.
  - c. In September 2022, staff worked with the three state DOTs to learn more about their plans related to the National Electric Vehicle Infrastructure (NEVI) Formula Program, established by the Bipartisan Infrastructure Law (BIL). State DOT representatives briefed the TPB Technical Committee in October on their NEVI plans.
  - d. TPB staff tested and reviewed the new Congestion Mitigation and Air Quality (CMAQ) Toolkit for estimating emissions benefits of highway and intermodal projects.
  - e. COG DEP staff and TPB staff held internal planning meetings for the Regional Electric Vehicle Deployment (REVD) Working Group.
6. Air-quality-related data requests: This fiscal year, staff have responded to 10 air-quality-related data requests.

## **Task 7. Travel Monitoring and Data Programs**

### **7.1 Transportation Research and Analysis**

- Presentations, Visualizations, and information reports
  - Ongoing
- Workplan, survey data files, and documentation for travel surveys
  - Ongoing
  - Workplan for State of the Practice of Household Travel Surveys complete
  - Interviews with subject matter experts at other agencies complete
  - Memo with lesson learned during interviews completed.
  - Memo reviewed with internal stakeholders.
  - Presentation for external stakeholders developed and delivered
- Technical support
  - Ongoing
- **Data Management and Visualization Services** Travel monitoring datasets to support PBPP and Gen3 modeling requirements
  - Ongoing
- Travel trends and dashboard and visualizations
  - Workplan under development
- Technical reports/memoranda
  - Ongoing
- Presentations
  - Ongoing

## **Task 8. Regional Land Use and Transportation Planning Coordination**

### **8.1 Regional Land Use and Transportation Planning Coordination**

- Updated Cooperative Forecasting land activity forecasts and documentation
  - Preliminary Round 10 Local Forecasts at the jurisdiction level complete
  - Preliminary Round 10 Reconciliation complete
  - Local TAZ level forecasts are under development
- Analysis of Activity Center and High-Capacity Transit Station area historic trends and forecasts
  - Under development
- Presentations, visualizations, and information reports
  - Ongoing
- Technical support
  - Ongoing
- Annual Baseline Employment Guidance
  - Work to commence later in fiscal year.

### **CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM**

- Conduct and process 2022 Regional Air Passenger Survey, Phase 1
  - Project underway
- Air Cargo Element Update
  - Work to commence later in fiscal year.

FY 2023 TRANSPORTATION PLANNING BOARD  
FINANCIAL STATUS OF TECHNICAL ASSISTANCE  
March 2023  
SUPPLEMENT 1

	TOTAL		FTA/STA/LOCAL		PL FUNDS/LOCAL	
	AUTHORIZED	TOTAL	AUTHORIZED	FTA	AUTHORIZED	FHWA
	BUDGET	EXPEDITURES	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES
<b>A. DC Technical Assistant</b>						
Program Development, Data Requests, & Misc	14,999.99	7,374.35	1,681.64	826.73	13,318.35	6,547.62
Regional Roadway Safety Program	30,000.00	12,940.64	3,363.28	1,450.77	26,636.72	11,489.87
Transportation/Land Use Connections Program	30,000.00	0.00	3,363.28	0.00	26,636.72	0.00
TBD	254,633.46	0.00	28,546.80	0.00	226,086.66	0.00
<b>Subtotal</b>	<b>329,633.45</b>	<b>20,314.99</b>	<b>36,955.00</b>	<b>2,277.50</b>	<b>292,678.45</b>	<b>18,037.49</b>
<b>B. MD Technical Assistant</b>						
Feasibility/Special Studies	24,999.99	0.00	4,347.42	0.00	20,652.57	0.00
Program Development & Misc	14,999.99	7,196.63	2,608.45	1,251.47	12,391.54	5,945.16
Planning Studies	35,000.00	227.47	6,086.39	39.56	28,913.61	187.91
TBD	157,970.51	0.00	27,470.57	0.00	130,499.94	0.00
Transportation Performance Measures	260,000.00	108,099.22	45,213.17	18,798.11	214,786.83	89,301.11
<b>Subtotal</b>	<b>492,970.49</b>	<b>115,523.32</b>	<b>85,726.00</b>	<b>20,089.14</b>	<b>407,244.49</b>	<b>95,434.18</b>
<b>C. VA Technical Assistant</b>						
Program Development & Misc	14,999.99	7,517.06	2,713.12	1,359.64	12,286.87	6,157.42
MARC - VRE Runthrough - VA	35,000.00	0.00	6,330.61	0.00	28,669.39	0.00
TBD	69,846.38	0.00	12,633.43	0.00	57,212.95	0.00
Transportation/Land Use Connection Program	80,000.00	14,840.07	14,469.97	2,684.19	65,530.03	12,155.88
Travel Demand Modeling	84,999.95	0.00	15,374.33	0.00	69,625.62	0.00
Travel Monitoring	100,000.49	57,726.27	18,087.55	10,441.21	81,912.94	47,285.06
<b>Subtotal</b>	<b>384,846.81</b>	<b>80,083.40</b>	<b>69,609.00</b>	<b>14,485.05</b>	<b>315,237.81</b>	<b>65,598.35</b>
<b>D. WMATA</b>						
Program Development & Misc	14,999.99	10,446.11	14,999.99	10,446.11	0.00	0.00
Regional HCT Graphic/Map	90,000.00	0.00	90,000.00	0.00	0.00	0.00
TBD	52,288.26	0.00	52,288.26	0.00	0.00	0.00
Transit Within Reach Soli	250,000.00	122,000.00	250,000.00	122,000.00	0.00	0.00
<b>Subtotal</b>	<b>407,288.25</b>	<b>132,446.11</b>	<b>407,288.25</b>	<b>132,446.11</b>	<b>0.00</b>	<b>0.00</b>
<b>Grand Total</b>	<b>1,614,739.00</b>	<b>348,367.82</b>	<b>599,578.25</b>	<b>169,297.80</b>	<b>1,015,160.75</b>	<b>179,070.02</b>

FY 2023 TRANSPORTATION PLANNING BOARD  
COG/TPB BUDGET EXPENDITURE SUMMARY  
March 2023

	DC, MD and VA  FTA, FHWA and LOCAL  BUDGET TOTAL	FUNDS  EXPENDED	BILLED  THIS MONTH	% FUNDS  EXPENDED
<b>1. Long-Range Transportation Planning</b>				
Long - Range Transportation Planning	1,122,781.45	579,223.57	83,823.57	52%
<b>Subtotal</b>	<b>1,122,781.45</b>	<b>579,223.57</b>	<b>83,823.57</b>	<b>52%</b>
<b>2. Transportation Improvement Program</b>				
Transportation Improvement Program	228,463.67	149,420.77	21,824.84	65%
TIP Database Support	200,000.00	138,799.68	17,349.96	69%
<b>Subtotal</b>	<b>428,463.67</b>	<b>288,220.45</b>	<b>39,174.8</b>	<b>67%</b>
<b>3. Planning Elements</b>				
Congestion Management Process	464,830.51	216,261.55	34,421.35	47%
Systems Performance, Ops & Tech Planning	491,115.22	273,259.47	33,399	56%
Transportation Emergency Preparedness Planning	142,103.03	92,333.41	13,415.03	65%
Transportation Safety Planning	328,165.29	101,015.89	12,009.08	31%
Bicycle & Pedestrian Planning	183,504.17	93,914.1	11,471.37	51%
Regional Public Transportation Planning	420,752.48	183,059.46	26,899.54	44%
Freight Planning	319,649.73	179,259.05	26,337.39	56%
Metropolitan Area Transportation Operation Coord Program Planning	168,057.12	127,563.89	15,616.72	76%
Performance-Based Planning & Programming	233,757.32	125,886.87	13,030.86	54%
Resilience Planning	312,185.11	73,135.04	18,437.6	23%
<b>Subtotal</b>	<b>3,064,119.98</b>	<b>1,465,688.73</b>	<b>205,037.94</b>	<b>48%</b>
<b>4. Public Participation</b>				
Public Participation	913,276.45	476,288.42	73,432.09	52%
<b>Subtotal</b>	<b>913,276.45</b>	<b>476,288.42</b>	<b>73,432.09</b>	<b>52%</b>
<b>5. Travel Forecasting</b>				
Network Development	1,047,672.55	660,432.94	101,197.59	63%
Model Development	2,316,968.86	1,083,200.41	154,108.61	47%
<b>Subtotal</b>	<b>3,364,641.41</b>	<b>1,743,633.35</b>	<b>255,306.2</b>	<b>52%</b>
<b>6. Mobile Emissions Planning</b>				
Air Quality Conformity	965,194.31	660,122.16	96,888.89	68%
Mobile Emissions Analysis	1,300,371.68	799,971.71	109,179.99	62%
<b>Subtotal</b>	<b>2,265,565.99</b>	<b>1,460,093.87</b>	<b>206,068.88</b>	<b>64%</b>
<b>7. Travel Monitoring and Data Programs</b>				
Research & Analysis	1,828,538.26	682,136.29	88,158.09	37%
Data Visualization & Management	781,035.17	473,872.84	45,362.93	61%
<b>Subtotal</b>	<b>2,609,573.43</b>	<b>1,156,009.13</b>	<b>133,521.02</b>	<b>44%</b>
<b>8. Planning Scenarios and Socioeconomic Forecasting</b>				
Socioeconomic Forecasting	1,165,429.24	734,557.93	100,432.14	63%
<b>Subtotal</b>	<b>1,165,429.24</b>	<b>734,557.93</b>	<b>100,432.14</b>	<b>63%</b>
<b>9. Mobility and Enhancement Programs</b>				
Transportation and Land Use Connections Program	578,940.58	176,056.31	20,405.49	30%
Enhanced Mobility Grant Program	92,739.74	32,908.61	7,687.32	35%
Transportation Alternatives Set-Aside Programs	35,916.83	16,137.97	2,764.16	45%
Other Tasks to be defined 9.5	374,899.11	201,279.4	85,280.68	54%
<b>Subtotal</b>	<b>1,082,496.26</b>	<b>426,382.29</b>	<b>116,137.65</b>	<b>39%</b>
<b>10. TPB Support and Management</b>				
TPB Support and Management	989,546.94	427,408.22	49,745.72	43%
<b>Subtotal</b>	<b>989,546.94</b>	<b>427,408.22</b>	<b>49,745.72</b>	<b>43%</b>
<b>Core Program</b>	<b>17,005,894.82</b>	<b>8,757,505.96</b>	<b>1,262,680.01</b>	<b>51%</b>
<b>A. District of Columbia Technical Assistance</b>				
Program Development & Misc.	329,633.45	20,314.99	1,074.51	6%
<b>B. Maryland Technical Assistance</b>				
Program Development & Misc.	492,970.49	115,523.32	1,074.5	23%
<b>C. Virginia Technical Assistance</b>				
Program Development & Misc.	384,846.81	80,083.4	5,602.8	21%
<b>D. Public Transit Technical Assistance</b>				
Program Development & Misc.	407,288.25	132,446.11	11,959.5	33%
<b>Technical Assistance</b>	<b>1,614,739.00</b>	<b>348,367.82</b>	<b>19,711.31</b>	<b>22%</b>
<b>TPB Grand Total</b>	<b>18,620,633.82</b>	<b>9,105,873.78</b>	<b>1,282,391.32</b>	<b>49%</b>