FY 2023

National Capital Region Transportation Planning Board

Work Program Progress Report
JUNE 2023
End of FY 2023 Accomplishments
FY 2023

The TPB approved its FY 2023 Unified Planning Work Program (UPWP) in March 2022. The TPB Work Program Progress Report summarizes each activity for June, plus provides an annual summary. 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.

1. LONG-RANGE TRANSPORTATION PLANNING

1.1 Visualize 2045 Implementation
1.2 Environmental Justice and Equity
1.3 Future Plan Development
1.4 Federal Compliance
1.5 Policy Board-Directed Activities

2. TRANSPORTATION IMPROVEMENT PROGRAM

2.1 Transportation Improvement Program
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
3.10 Resiliency Planning

4. PUBLIC PARTICIPATION

4.1 Public Participation and Outreach
4.2 Communications

5. TRAVEL FORECASTING

5.1 Network Development
5.2 Model Development and Support

6. MOBILE EMISSIONS PLANNING

6.1 Air Quality Conformity
6.2 Mobile Emissions Analysis

7. TRANSPORTATION RESEARCH AND DATA PROGRAMS

7.1 Transportation Research and Analysis
7.2 Data Management and Visualization Services

8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION

9. MOBILITY AND ENHANCEMENT PROGRAMS

9.1 Enhanced Mobility Grant Program
9.2 Regional Roadway Safety Program
9.3 Transportation Alternatives Program
9.4 Transportation and Land Use Connection Program

10. TPB MANAGEMENT AND SUPPORT

10.1 TPB Committees Support and Management and UPWP

11. TECHNICAL ASSISTANCE PROGRAM

11.1 DDOT
11.2 MDOT
11.3 VDOT
11.4 Regional Transit Technical Assistance

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM (CASP)

Task 1	BUDGET	Billed this month	% Funds Expended	UPWP Page
LONG RANGE TRANSPORTATION PLANNING	$1,032,781	$116,053	80%	35

1. LONG-RANGE TRANSPORTATION PLANNING

Task 1.1 – Visualize 2045 Implementation
Staff worked on the relationship between performance measures and goals. Staff also began evaluating the role of strategies or aspirational initiative to achieve goals and how progress is assessed towards strategy successfulness.

Task 1.2 – Environmental Justice and Equity
Staff is in the process of reviewing the TPB's equity emphasis areas and the Justice 40 areas comparing their geography and definition criteria.

Task 1.3 – Future Plan Development
Staff began researching how the activity center, high-capacity transit, and walkshed analysis concepts could be applied to identify multimodal centers and districts for the region. Staff continued to work on a list of common transportation solutions, reviewing information in the Project InfoTrack database for project elements. Staff began all internal staff meetings to coordinate plan development activities. Staff worked on communications and public engagement plans to guide plan development.

Staff continued work on an initial financial analysis for Visualize 2050.

1.4 – Federal Compliance
Staff began to work on the recommendations provided in the 2023 Federal Certification Review.

1.5 – Policy Board-Directed Activities
There has been no activity at this time.

FY 2023 Highlights/End-of-Year Recap

- A new plan manager was recruited and hired.
- The Visualize 2050 plan was kicked off, including a complete overhaul of the Technical Inputs Solicitation, a new Synthesized Policy Framework document (summarized all the previous policies), and a Scenario Summary, which summarized 10 years of scenario analysis into a compact public friendly document.
- Staff defined and kicked off the Zero Based Budgeting process, first by categorizing all plan projects into two groups: green list (projects that are underway) and orange list (projects that have not had any funding spent on them yet).
- Staff developed and TPB approved the plan update schedule.
- Staff completed the Environmental Justice Analysis on Visualize 2045.
- Staff developed a scope of work and schedule for the financial analysis of the Visualize 2050 long-range transportation plan, in consultation and coordination with the state DOTs and WMATA. Initial projections were collected from the state DOTs and WMATA.
- A briefing to local jurisdictions on the process and their financial inputs was delivered at the January Technical Committee meeting. Individually, member jurisdictions and agencies were consulted and coordinated with to develop and collect their inputs, with staff fielding questions and providing suggestions and critical review. Staff then worked on developing a comprehensive financial analysis.

- Staff participated in the quadrennial federal certification review, discussing transportation funding in the region and the demonstration of financial constraint for the Visualize 2045 (2022) long range plan, among other things.

	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRANSPORTATION IMPROVEMENT PROGRAM	$428,463	$70,173	95%	37

2. TRANSPORTATION IMPROVEMENT PROGRAM

2.1 – Transportation Improvement Program (TIP)

At its meeting on June 2, 2023, the TPB Steering Committee adopted two resolutions approving amendments to the FY 2023-2026 TIP. The first amendment, requested by DDOT, added $2.1 million for the Southern Ave. SE Improvements Project. The second amendment, requested by VDOT, added a net total of approximately $74 million for four roadway and bridge projects and three project and program grouped TIP categories: Preventative Maintenance and System Preservation, Preventative Maintenance for Bridges, and Maintenance: Traffic and Safety Operations. The four roadway projects amended by VDOT were included in the Air Quality Conformity Analysis of the 2022 Update of Visualize 2045 and the FY 2023-2026 TIP and the Southern Ave. SE Improvements project and VDOT's three grouped TIP projects/programs are exempt from the air quality conformity requirement.

TPB staff processed seven Administrative Modifications for DDOT, VDOT, and Montgomery County under TIP Action 23-20.

Staff began a review of VDOT's draft FY 24-27 STIP in preparation for amendment into the TPB's TIP.

FY 2023 Highlights/End-of-Year Recap

- The TPB Steering Committee approved 23 resolutions in FY 2023 approving amendments requested by 18 agencies to 210 project and program records in the FY 2023-2026 TIP.
- Staff approved administrative modifications to 91 project and program records.
- Staff worked with EcoInteractive and implementing agencies to develop the FY 2022 report of Transportation Projects with Federal Funding Obligations in the National Capital Region.
- Staff produced two tutorial videos demonstrating how to use the Project InfoTrak system to submit amendments and administrative modifications.

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 June under the baseline maintenance and support contract included the removal of existing records from the "project grouping" module to allow all agency users a blank slate when creating Overarching Project records for inputs into the Visualize 2050 and FY 2026-2029 TIP data sets.

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

- Move ZBB-Exempt Status Field
- Removal of extraneous data fields in the LRTP funding section to provide a simpler means for users to enter project cost information.
- The bulk creation of approximately 30 TIP records converted from LRTP records for preparation of an amendment to update the TIP to match VDOT's draft FY 2024-2027 STIP.
- Rearrangement of columns on the Amendment Summary Report in a more logical order, and providing for labeled separators between records submitted by different agencies in one report, and a cumulative total row summing the costs before and after, and the change amount.
- Update wording on My TIP List to be more consistent with TPB staff's use of the term "records" as opposed to "projects."

FY 2023 Highlights/End-of-Year Recap

- Consultant EcoInteractive successfully completed the third year of their contract.
- Work performed in FY 2022 under the basic contract included 120 hours of providing help desk service to staff and users from member agencies, as well as regular maintenance support and bug fixes.
- Work performed under the expanded contract for professional services included 80 additional hours dedicated to multiple customizations and improvements to the Project InfoTrak system requested by staff. All requested customizations were successfully implemented by the contractor
- EcoInteractive had planned to transition the TPB's Project InfoTrak system to a new and upgraded platform at the end of fiscal year 2023, but delays in the scheduling of the Technical Inputs Solicitation process due to uncertainty of funding and the status of some significant projects along with the decision by staff not to switch platforms while agencies are actively entering information means that this platform upgrade will be delayed until January 2024.

Task 3	BUDGET	Billed this month	% Funds Expended	UPWP Page
PLANNING ELEMENTS	$2,639,123	$320,681	79%	39

3. PLANNING ELEMENTS

3.1 Performance-Based Planning

Staff assisted with follow-ups from the federal certification review.

FY 2023 Highlights/End-of-Year Recap

- The TPB adopted the 2022-2025 targets developed for the Highway Asset and Highway Travel Reliability performance measures in October 2022. The TPB also approved the annual highway safety and transit safety targets in December 2022.
- Staff developed resolutions, reports, and presentations for the TPB for board approval of PBPP targets.

- Staff prepared a regional data visualization of bridge condition and pavement condition performance.
- Staff participated in the quadrennial federal certification review, discussing the performance-based planning process in the region and actual performance against adopted targets.
- Staff prepared briefings, updated the Technical Committee, attended state and federal training sessions, and coordinated with state DOT and other MPO stakeholders on the PBPP performance and targets.
- Staff authored a revised System Performance Report on PBPP (Appendix D of the 2022 version of the Visualize 2045 long range transportation plan) to include information on recent performance data and targets set during calendar year 2022. The revised report was completed in January 2023, ahead of and in preparation for the quadrennial federal certification review.
- Staff reviewed FHWA's Greenhouse Gas performance measure Notice of Proposed Rulemaking (GHG NPRM) and developed technical comments. Staff met with state DOTs and attended multiple webinars and other events discussing the NPRM.

3.2 Congestion Management Process

Staff began preparations for a future Vehicle Probe Data Users Group workshop on the Probe Data Analytics Suite Bottleneck Ranking Tool. Staff undertook background research toward potential big data activities in Congestion Management in FY 2024.

FY2023 Highlights/End-of-Year Recap:

- The 2022 Congestion Management Process (CMP) Technical Report was accepted as final by the TPB Technical Committee in July 2022, and published.
- As a follow-up to the 2022 CMP Technical Report, a supplementary analysis of regional bottleneck rankings for the years 2010 to 2021 was undertaken and presented to the TPB and a number of subcommittees.
- Regional congestion management website content was maintained, with regional congestion summaries published.
- Background research was undertaken toward future analysis opportunities of big data sets.
- Three (3) meetings of the Vehicle Probe Data Users Group were organized and conducted, serving as collaboration and information sharing opportunities for member agencies and staff regarding transportation systems usage data sources.

3.3 Systems Performance, Operations, and Technology Planning

Staff prepared for future meetings of the Systems Performance, Operations, and Technology Subcommittee.

FY2023 Highlights/End-of-Year Recap:

- Two (2) meetings of the Systems Performance, Operations, and Technology Subcommittee (SPOTS) were organized and conducted during FY2023, including preparation of agendas, meeting summaries, and informational materials, providing opportunities for coordination and information exchange.
- Staff monitored related trends on topics such as Traffic Incident Management, technology, Connected and Automated Vehicles, and emergency preparedness (in conjunction with Task 3.4).

- The Metropolitan Washington Regional Intelligent Transportation Systems Architecture (MWRITSA) was maintained on the TPB website.

3.4 Transportation Emergency Preparedness Planning

The regularly scheduled June 14 Transportation Emergency Preparedness Committee (R-ESF 1) virtual meeting was organized and conducted, discussing current regional transportation emergency preparedness issues.

FY2023 Highlights/End-of-Year Recap:

- Ten (10) meetings of the Regional Emergency Support Function 1 (R-ESF 1) Transportation Emergency Preparedness Committee were organized and conducted during FY2023, including preparation of agendas, meeting summaries, and tracking of action items. Supporting and informational materials were developed.
- The Committee discussed transportation agency activities regarding COVID-19 response and recovery.
- Follow-ups to the 2018 COG Traffic Incident Management Enhancement (TIME) Initiative were coordinated with the Transportation Emergency Preparedness Committee, with an emphasis on aspects of transportation/public safety incident coordination.
- Transportation emergency preparedness planning coordination with public safety committees and programs was maintained.

3.5 Transportation Safety Planning

The Transportation Safety Subcommittee met virtually on June 13. The agenda included a briefing by Fairfax County on its Seven Corners Phasing Study, Prince William County on various local safety projects, and TPB staff on the FY 2024 Regional Roadway Safety Program awarded projects.

TPB staff held a planning session on June 9 with the Transportation Safety Subcommittee Chair to identify topics and speakers for future Safety Subcommittee meetings.

FY 2023 Highlights / End-of-Year Recap

- The Transportation Safety Subcommittee meets six times a year. Vanessa Holt of the Fairfax County DOT was chair of the Subcommittee. Staff coordinated with Chair Holt to identify speakers, develop meeting materials, and facilitate each meeting.
- A special safety roundtable was held in November 2022 with the District, Maryland, and Virginia departments of transportation to provide the TPB with updates on recent safety activities undertaken by each state.
- Staff led the effort to establish this year's federally required PBPP regional highway safety targets. The TPB adopted these targets in November 2022.
- Advice and guidance were provided to the Regional Roadway Safety Program (Task 9.2), which was successfully accomplished.

3.6 Bicycle and Pedestrian Planning

Staff worked with the jurisdictions to get their input to the National Capital Trail Network, and organized those submissions by needed criteria for GIS staff.

FY2023 Highlights/End-of-Year Recap:

- Data from all the jurisdictions on the National Capital Trail Network, including change in implementation status, technical corrections to the routes, re-routing of some segments

based on the agency's assessment of feasibility, and requests for additional routes were gathered, organized, and provided to GIS staff.

- Six (6) meetings of the Bicycle and Pedestrian Subcommittee were organized and conducted, fostering information exchange on a range of best practices in bicycle and pedestrian planning among TPB member jurisdictions and subject matter experts.
- Bicycle and pedestrian planning technical advice was provided for the Street Smart regional pedestrian and bicyclist safety campaigns.
- Police and planners from around the region discussed pedestrian enforcement programs at a Best Practices in Pedestrian Enforcement virtual workshop held on October 27, 2022.
- A Shared Micromobility workshop/webinar was organized and conducted on April 24, 2023. Workshop attendees included representatives from jurisdictions with active programs, discussion management, operational, and user/public issues.

3.7 Regional Public Transportation Planning

The Regional Public Transportation Subcommittee met in June. Agenda items include briefings on the Eastern Panhandle Transit Authority's Silver Line connection service, transit updates from Loudoun and Frederick Counties, and the City of Hyattsville's plans for cool green bus shelters. COG staff provided a briefing on the upcoming Enhanced Mobility Program Grant solicitation.

Staff gave a presentation on the results of a desk review of intercity bus and rail transit in the region at the June Technical Committee and TPB meetings. Staff prepared letters of endorsement for local jurisdictions applying for federal grants.

Staff attended the monthly WMATA JCC and NVTC MAC meetings. Staff worked with on-call planning consultants to complete a study of transit funding across the nation and continued working with consultants on a study of local bus transit and access to High Capacity Transit stations.

FY2023 Highlights/End-of-Year Recap

- The Regional Public Transportation Subcommittee (RPTS) met eight times in the year. Staff conducted meeting planning and facilitation. Staff also organized a RPTS field trip to VRE's Broad Run yard.
- Staff participated in the quadrennial federal certification review, discussing public transportation planning in the region and the roles and responsibilities of the various agencies.
- Staff participated in MATOC Transit Task Force meetings and conducted a sixth pandemic-era survey on transit ridership and service levels.
- On-call consultants delivered an updated Bus Transit Equity analysis of bus transit service and equity in the region and a white paper on transit funding across the nation, and started work on a study of bus service to High Capacity Transit stations. Staff prepared scopes of work, conducted contract administration, reviewed deliverables, and provided briefings on the results.
- Staff attended monthly WMATA JCC meetings and other WMATA meetings, including on the Better Bus effort and the Bus Network Redesign, and assisted in organizing briefings and a work session on these efforts for the TPB and the Technical Committee.
- Staff participated in transit planning meetings of the three states and other transit planning agencies and attended webinars and other professional events on transit planning and performance.
- Staff completed the 2021 State of Public Transportation report with consultant assistance, collecting data and preparing all information, and began work on the 2022 report.

- Staff prepared multiple TPB endorsement letters for federal grant applications by member jurisdictions and agencies.
- Staff participate in regional and NVTC working groups on transit zero-emission vehicles and decarbonization.
- Staff completed a desk review analysis of intercity bus and rail transit in the region.

3.8. Freight Planning

TPB staff held planning sessions on June 2 and 14 with the Freight Subcommittee Chair to identify topics and speakers for future Subcommittee meetings.

TPB staff reviewed and commented on the revised National Capital Region Freight Plan Update, which included a new analysis of freight impacts on equity emphasis areas and the transport of hazardous materials.

<u>FY 2023 Highlights / End-of-Year Recap</u>

- The Freight Subcommittee meets five times in the year. Laura MacNeil of the District Department of Transportation was chair of the Subcommittee. Staff coordinated with Chair MacNeil to identify speakers, develop meeting materials, and facilitate each of the meetings.
- TPB staff engaged the on-call consultant team and completed an update of the National Capital Region Freight Plan, which is expected to be approved by the TPB in September 2023.

3.9 Metropolitan Area Transportation Operations Coordination Program Planning

The regularly scheduled June 16 meeting of the MATOC Steering Committee was organized and conducted as in in-person/hybrid meeting at MATOC's offices in College Park, Maryland, discussing communications, coordination, and Traffic Incident Management topics, as well as impacts of COVID-19.

An in-person/hybrid meeting of the MATOC Operations Subcommittee was organized and conducted on June 22 at MATOC's offices, discussing regional roadway operations and traffic issues, including impacts of COVID-19.

An in-person/hybrid meeting of the MATOC Transit Task Force was organized and conducted on June 28 at the Washington Metropolitan Area Transit Authority Headquarters in Washington, D.C., discussion regional transit operations and coordination with roadway operations.

<u>FY2023 Highlights/End-of-Year Recap:</u>

- TPB staff support, and advice was provided for ten (10) virtual meetings and one (1) in-person/hybrid meeting of the MATOC Steering Committee during FY 2023, including preparation of agendas, meeting summaries, and tracking of action items, helping the MATOC Steering Committee in its effective oversight of MATOC activities.
- TPB staff support, and advice was provided via participation in 18 virtual meetings plus three (3) in-person/hybrid meetings of MATOC's subcommittees and working groups during FY 2023, including on operations, transit, information systems, and severe weather, covering both routine business and response to and recovery from transportation impacts of the COVID-19 pandemic.

3.10 Resiliency Planning

Staff continued to make progress on the Phase II Transportation Resiliency Study with the on call consultant. Major milestones in June 2023 for this project were finalizing the first phase of the risk-based vulnerability assessment, initiative the second phase of the vulnerability assessment and data collection and scheduling the second working group meeting. Staff met with representatives

from First Street Foundation, an organization that provides in-depth, climate adjusted, property specific risk assessments for various natural hazards, to begin researching the most accurate data for future studies and analysis.

TPB staff presented transportation resilience planning and implications for the freight industry to the freight subcommittee meeting on June 26. Staff also coordinated with Northern Virginia Regional Council (NVRC) staff and COG DEP staff for TPB Technical Committee and TPB Board meeting presentations on MIRR studies in DC and Northern Virginia. 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 Resilience Planner coordinated with other resiliency staff within COG to ensure continuity of work across the region and organization, including participating in the kickoff meeting for new DEP projects and studies. Staff also continued participation in the Prince William County Green Infrastructure project by reviewing potential contractor qualifications and discussing procurement options.

<u>FY2023 Highlights / End-of-Year Recap</u>

- In November 2022, TPB hired a transportation resilience planner to manage the work for this task and advance transportation resilience planning at a regional scale. TPB received commendation for this during the federal certification process.
- TPB established a new program, the Transportation Resilience Planning Program, to move towards the regional goal of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030. TPB staff presented to the Technical Committee several times and the TPB Board on the program and plans.
- Building on the strong foundation of resilience work already undertaken, together with member jurisdictions and agencies, TPB engaged the on-call consultant to begin development of the Phase II TPB Transportation Resilience Study. Work began in April 2023 with expected completion in June 2024.
- TPB staff convened a newly formed Regional Transportation Resilience Planning working group and held the first meeting in May 2023. This group will advise the Phase II study and will transition to a formal subcommittee when the study is complete.

Task 4	BUDGET	Billed this month	% Funds Expended	UPWP Page
PUBLIC PARTICIPATION	$913,276	$71,291	70%	45

4. PUBLIC PARTICIPATION

4.1 Public Participation and Outreach

The June meeting of the 2023 - 2024 TPB Community Advisory Committee (CAC) was held on Thursday, June 15. The committee received a presentation from the District Department of Transportation (DDOT) about their funding and project prioritization process and an overview of TPB's Intercity Travel work. The meeting was held virtually on WebEx.

The June meeting of the Access for All Advisory Committee (AFA) was held Monday, June 26. The committee discussed the District of Columbia's funding and project prioritization process, OmniRide's microtransit program (OmniRide Connect), the 2023 Enhanced Mobility solicitation, and the implementation of recommendations from the 2022 Participation Plan Evaluation. The meeting was held in a hybrid format with an in-person option at COG, and virtual option on WebEx.
Staff continues to implement recommendations from the 2020 Public Participation Evaluation.

Staff continue to compile and share public comments from the Visualize 2050 Initial Project List Feedback Form which includes project-specific feedback on the Visualize 2045 project list for the Visualize 2050 Technical Inputs Solicitation. Staff continue to report public comments to the TPB's Technical Committee, TPB, and state agencies on a bimonthly frequency.

Staff initiated a public comment period for a TIP amendment requested by VDOT that ended on July 15, 2023.

FY 2023 Highlights / End-of-Year Recap

- An evaluation of TPB's public involvement activities was conducted by Foursquare ITP, whose services were procured by TPB's on-call consultant. Work began in September 2022 and research was conducted in October 2022. Consultants reviewed documents outlining participation policies and goals, along with documents and data that reflect the planning, execution, and evaluation of participation efforts, including communications outreach. They conducted four focus groups with TPB's Community Advisory Committee, Access for All Advisory Committee, Technical Committee, and project implementation staff. They also evaluated participation activities based on a rubric of TPB's participation policies and goals. These evaluation approaches resulted in recommendations and completion of a final report based on the TPB's 2019 – 2022 participation activities, which staff has been actively implementing since December 2022. The report was shared with FTA and FHWA as part of the federal certification review.
- Staff supported the preparation of Public Participation activities summary for the 2023 Federal Certification Review, which provided staff with an additional opportunity to reflect on the past participation efforts and consider in preparation for the next UPWP.
- Staff continues to work on a supplementary public comment period for Visualize 2050 plan update. Members of the public are invited to provide feedback on the Visualize 2045 project list or suggest projects for inclusion in Visualize 2050. Staff have reported comments received bi-monthly at the TPB Technical Committee and Board meeting for local and state jurisdictions to consider as they re-examine and re-submit projects for Visualize 2050. From the form's launch in February 2023 until June 2023, a total of 592 comments were received about individual projects or suggestions for future projects.

4.2 Communications

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

- **May 2023 TPB meeting recap: Coordinated Plan, Regional Roadway Safety projects**
  June 13, 2023
- **New searchable databases highlight infrastructure funding opportunities**
  June 14, 2023
- **COG Board explores opportunities for regional infrastructure investments**
  June 28, 2023

Staff updated pages on the COG website related to transportation including: Human Service Transportation Coordination, Getting Involved & Public Comment, About the TPB, Access for All Advisory Committee, and Community Advisory Committee

Staff shared information about TPB activities via social media:

Health Advisory code purple (Retweet June 8), COG Board meeting includes transportation items (June 14), New Infrastructure Database (Retweet June 14), COG Regional Podcast/Transportation Resilience (June 16), Listen to June 21 TPB meeting (June 20), Intercity travel overview (June 23), New transit funding (Retweet June 26), Coming Soon: Enhanced Mobility (June 28), Region receives trail funding (June 29), COG Executive Director interview with Washington Post (June 30)

Staff completed the following in support of Task 1 Long-Range Transportation Planning:

- Developed a draft Communications Plan for the Visualize 2050 Plan Update
- Developed draft Website update recommendations for the Visualize 2050 Plan Update

FY 2023 Highlights / End-of-Year Recap

- Developed the TPB Welcome Guide: An Introduction for New National Capital Region Transportation Planning Board Members.
- Wrote and posted 12 TPB articles on various region-focused topics including the Infrastructure Investment and Jobs Act (IIJA), transportation resiliency, roadway safety, regional bus improvements, traffic gardens, enhanced mobility, and long-range planning. Updated website and social media content to promote the TPB's technical assistance and funding program application periods for the Transportation Land-Use Connections Program, Transit Within Reach Program, Regional Roadway Safety Program, state DOT Transportation Alternatives Set-Aside Programs, and COG's Enhanced Mobility Program.
- Distributed 11 TPB News mailings and two TPB special mailings, wrote 10 TPB board meeting recaps for the COG/TPB website, and posted or shared TPB, Commuter Connections, and COG social media announcements via TPB Twitter (124 tweets, retweets, or quote tweets) and Facebook (36 posts or shares).
- Supported initial kick-off of the Visualize 2050 transportation plan update by preparing content for the new TPB Policy Framework and Technical Inputs Solicitation and by establishing a web page with resources to support the Technical Inputs Solicitation and initial comment period.
- Conducted research and data collection on public outreach, social media, and website resources to support consultant update of the TPB Public Participation Evaluation (described in detail in Task 4.1).
- Managed preparation of Public Participation and Communications activities summary for the 2023 Federal Certification Review.

Task 5	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL FORECASTING	$2,682,641	$310,146	87%	47

5. TRAVEL FORECASTING

5.1 Network Development

After investigating persistent traffic volume overestimation on screenlines 2 and 4 in the 2018 highway network for the Gen3 Travel Model, staff decided that the high volumes are likely due to the fact that the number of lanes coded in the COG highway networks did not fully reflect the capacity reduction associated with time-of-day roadside parking, which is prevalent in the District of Columbia. To provide a more accurate reflection of the time-of-day roadway capacity, staff reviewed and updated the number of AM, PM, and off-peak lanes on long segments of the roads associated with screenlines 2 and 4 in the 2018 network for the Gen3 Model development work. Staff also provided documentation so that the same updates can be made to out-year Gen3 Model networks and to the Gen2 Model network database. Staff plans to review, update, and document the roadway capacity (number of AM, PM, and off-peak lanes) on the rest of the District's roads in the network database over the summer.

Staff fulfilled a data request from the Maryland-National Capital Park and Planning Commission (M-NCPPC) and responded to follow-up questions.

Staff continued development of a new base transit network, based on transit service in December 2022, for use in the upcoming air quality conformity (AQC) analysis of the 2025 update to the Long-Range Transportation Plan (LRTP). This work included review of downloaded and reformatted General Transit Feed Specification (GTFS) data. Staff also plan to develop a new base transit network in FY 2024 based on December 2023 service levels. In June, staff completed the addition of new routes and the removal of routes no longer in the system and began QA/QC of this work.

Staff continued to work on an automated procedure in COGTools that will perform Quality Assurance/Quality Control (QA/QC) 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 tested the second version of the module and provided feedback in June. This module's development is on hold until the base transit network is completed.

FY 2023 Highlights / End-of-Year Recap

- Staff developed documentation of past transit fares to help produce travel model inputs for past travel demand, such as would be needed when updating mobile emissions inventories to meet state implementation planning (SIP) requirements.
- Staff provided continual review and update of the network database, including in response to comments by state departments of transportation (DOTs) and consultants using various networks for sub-regional or corridor studies.
- Staff corrected a network error associated with 15000-series node range error which reduced the number of auto-access-to-bus trips in travel demand model runs. Staff produced updated networks (2021, 2023, 2025, 2030, 2040, and 2045) for distribution for data requests. These updates led to fixes in the network database and a major update of the Gen2/Ver. 2.4 Model transmittal package.
- Staff developed a base transit network reflecting service current to December 2022. This work included review of bus and rail fares and development of a 2022 transit fare matrix.

- Staff developed a test year-2023 network reflecting updated tolls on the Dulles Toll Road to run a sensitivity test to determine the impact of the toll increase on traffic.
- Staff responded to multiple information requests from the state DOTs and consultants.
- In preparation for an update to the region's LRTP, staff developed a memo listing the detailed assumptions used in transit network coding in the 2022 Update to Visualize 2045. This serves as a starting point for state and local transportation agencies to provide updated coding assumptions associated with inputs for the 2024/25 Update to the LRTP, known as Visualize 2050.
- Staff held three training session for the region's implementing agencies, which outlined how to input LRTP and Transportation Improvement Program (TIP) projects into the Project InfoTrak (PIT) database for the upcoming air quality conformity analysis of the Visualize 2050 plan update. The PIT data will be exported to create a conformity project inputs table which will be used to update the network database.
- 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's proposed 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 identify one boundary of the impacts of fare changes on travel.
- Staff developed a 2025 network for a sensitivity test examining the impacts of a "bare bones" scenario for a major transit provider. Staff coordinated with the provider to represent, in the networks used by the travel model, the reduced transit service around the region and condensed bus service in various corridors.
- COG staff coordinated with RSG staff, the consultant group developing the Gen3 Travel Demand Model, to modify the commuter rail fares in the Gen3 Model networks to reflect the discounted fares that are typically used by regular commuter rail patrons. At the beginning of the Gen3 Model development process, RSG planned to include a Transit Pass Ownership Model to reflect commuter rail discounts. During the Gen3 Model Phase 2 development, however, RSG and COG decided not to include this Transit Pass Ownership Model due to lack of local transit pass ownership information in both the Regional Travel Survey (RTS) and recent transit on-board surveys (TOBSs). As a result, the base-year commuter rail fares originally coded in the model network did not reflect discounts commonly used by regular commuter rail riders.
- Throughout FY 23, network staff continued to improve the Unified Geodatabase (UGDB) and the associated COGTools software that staff developed in FY 21 to support transportation networks in both Cube TRNBUILD and Cube Public Transport (PT) formats. Staff implemented a series of new features, enhancements of existing features and bugfixes in the unified geodatabase/tool. Examples included a new Station Management module, an updated drop-down menu for transit agencies, an enhancement to the network export functions to impose a 144-column limit in transit mode files, and an automated procedure in COGTools that performs Quality Assurance/Quality Control (QA/QC) checks on the network files to be exported from the network database.
- In FY 23, staff started to use version control software Git and GitHub to manage the COGTools source files. Staff created a GitHub repository for COGTools and uploaded the latest source files to the repository. Staff conducted internal training on May 9.

5.2 Model Development and Support

The Travel Forecasting Subcommittee (TFS) meets in odd-numbered months, so it did not meet in June. Nonetheless, staff prepared draft meeting highlights for the May 19 meeting and began developing the agenda for the July 21 meeting.

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 air quality conformity analysis of the 2025 update of the LRTP. Staff aim to prepare a transmittal package for the model by mid-July. In June, staff were reviewing the model user's guide and preparing other accompanying documents.

In preparation for the 2025 LRTP update, staff started to implement changes to model code/input files to accommodate the new horizon year of 2050 in the Ver. 2.4.6 Travel Model. In June, this work was on hold and will be resumed after the zone-level. Round 10 Cooperative Forecast 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 two check-in meetings with RSG and BMG, the consultants on the Gen3 Model development project, on June 8 and 22.
- 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,
  - o RSG/BMG staff continued to work on the calibration and validation of the Gen3, Phase 2, Model. Staff investigated the traffic volume overestimation on some regional screenlines and identified a potential cause. After consulting with RSG, staff started to make updates to some screenline links and their upstream/downstream links in the 2018 highway network to reflect roadside parking restrictions in DC.
  - o As part of the Phase 2 sensitivity testing, COG staff plan to conduct two additional tests related to Autonomous Vehicles (AVs) and equity, respectively.
    - The AV test was put on hold in June as RSG is still implementing the proposed AV multipliers in the Gen3 Model.
    - For the equity test, staff developed a prototype Python script that will be used to compute equity indicators such as 45-minute job accessibility for target and control populations. Staff also modified the script to include additional equity indicators such as accessibility by walk-access transit and drive-access transit. Staff are currently performing QA/QC checks on the outputs.
  - o RSG finished the first draft of the Gen3 Model User's Guide and sent it to COG for review on April 26; COG staff reviewed this document and provided feedback on June 14.
  - o Staff proposed and implemented a methodology to integrate the toll setting process in the Gen3 Model flow. The preliminary testing results looked reasonable to both COG and RSG staff. Staff plan to rerun all the tests after receiving the final Gen3 Model from RSG. This is currently on hold.
  - o COG staff continued to make enhancements and bugfixes to the Gen3 Model. For example, COG staff developed a Python based View-From-Space (VFS) summary

        script that summarizes both ABM (demand) and assignment (supply) results for one to multiple model runs.

- o RSG updated the Estimation Data Bundle (EDB) generation process on June 28; Staff tested it but still failed to run.
- o RSG/COG staff started the talk on extending the current contract, via a contract amendment and a new task order (Task Order #5) to cover some of the existing/additional model development tasks.

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.

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 continuing to conduct 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

Staff serviced three data requests in June: One was for the Gen2/Ver. 2.4 Travel Model with revised transit networks. The second request was for the Gen2/Ver.2.4 Select Link Analysis (SLA) program from a consultant. The third request was from the Maryland-National Capital Park and Planning Commission (M-NCPPC) Montgomery County for the COGTools software, network database and documentation, to develop and refine Montgomery County's use of COGTools. Staff also responded to questions from M-NCPPC staff related to the Gen2/Ver. 2.4.6 Model on June 13 and 14.

In June, staff continued the recruitment process for a Transportation Engineer 2 or 3 position to fill a recent departure in the Model Development Group.

Staff attended the TRB Innovations in Travel Analysis and Planning (ITAP) Conference from June 4 to June 6. Staff also held a debriefing session on the conference on June 16.

Staff attended the ActivitySim Monthly Partners-Only Check-In meeting on June 15. Staff attended ActivitySim Consortium meetings regularly on Tuesdays and Thursdays.

Staff attended a Bentley Webinar: Leveraging Teralytics Movement Data in Bentley Mobility Simulation Software, on June 27.

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

- Staff prepared to move older, less frequently used modeling data from primary storage to archival storage on the cloud to save the storage cost. Staff re-organized the files under the O:\data-request folder, prepared a list of folders to be transferred, and requested that COG IT perform the data transfer.
- Staff continued the modeling tests on the AWS servers. Per staff request, IT rebuilt tmws04 and staff conducted test runs on that server to make sure that it was working.

- IT upgraded the operating system (O/S) of on-premises servers tms6, tms7 and tms8 to Windows Server 2019. Staff conducted test runs on all three servers to make sure the new O/S works well with the travel demand model.

FY 2023 Highlights / End-of-Year Recap

- Staff supported the TPB's current production-use, Gen2/Version 2.4 Model in the following ways:
    - Following the TPB approval of the Gen2/Ver. 2.4 Travel Model on June 15, 2022, staff updated related modeling webpages on the COG website in July 2022.
    - Due to the fixes to the network database, especially those related to the 15000-series nodes, staff re-ran the Gen2/Ver. 2.4 Travel Model for all the Air Quality Conformity (AQC) analysis years and created a new model transmittal package for the Ver. 2.4 Travel Model, dated November 14, 2022.
    - In preparation for the upcoming 2025 LRTP Update, staff started to implement changes to model files/input files to accommodate the new horizon year of 2050 in the Ver. 2.4 Travel Model. Specifically, staff created batch files that will be needed to run the model for 2050, exported a 2050 True Shape file from the current Geodatabase, and modified the "Bus_Factor_File.dbf" file to include the years 2046-2050. Staff also updated the Python script to process and interpolate land use forecasts for 2050. Coordinating with COG's Planning Data and Research (PDR) Team, staff also developed a methodology to generate a 2050 airport passenger trip table based on the 2019 Air Passenger Survey data and Round 10 Cooperative Forecasts.
    - Staff reviewed the technical memo and trip tables associated with the 2019 Air Passenger Survey (APS), transmitted by the Planning Data and Research (PDR) Team on October 12, 2022, and provided feedback. Staff communicated RSG's comments regarding the 2019 APS instrument and possible survey questions for the upcoming 2023 APS to PDR staff. Staff processed the revised airport passenger auto driver trip tables by year in Cube format, which were included by RSG in the Gen3 Model. Staff also plan to use these trip tables in the Gen2 Model for the upcoming 2025 LRTP Update.
    - In support of model validation and mobile emissions modeling activities, staff compiled observed daily vehicles miles of travel (VMT) data for the year 2021, based on Highway Performance Monitoring System (HPMS) reports from state DOT websites and developed the jurisdiction-level, weekday VMT summaries by federal functional class (FFC). Staff documented this work in a memorandum dated November 21, 2022.
- Staff supported the development of the TPB's Gen2/Version 2.4 Model in the following ways:
    - In FY 2023, staff developed the Gen2/Ver. 2.4.6 Travel Model, which is to be released as TPB's next production-use travel model in July 2023. This model included six major updates relative to the Ver. 2.4 Model, including the migration of the transit walkshed process from ArcPy to GeoPandas and the migration of the mode choice process from AEMS to TRANSIMS ModeChoice. Staff conducted numerous tests on the new model and documented the findings in a technical memorandum. Staff conducted internal training on how to set up and run the Gen2/Ver. 2.4.6 Model. Staff also presented to the Travel Forecasting Subcommittee on the status of the model.
    - Staff started to prepare a transmittal package for the Gen2/Ver. 2.4.6 Model, which entailed running the model for all the AQC analysis years on both the cloud and on-premises servers, updating the model user's guide (including the model flowchart), and preparing all other accompanying documents.

- Staff continued, with consultant assistance, the development of the TPB's next-generation travel model, to be known as Generation 3 (Gen3) Model. Staff contributed to the Gen3 Model development project in the following ways:
  - Attended the regular check-in meetings and many ad-hoc meetings with the consultants. Also attended the regular ActivitySim Consortium meetings, ActivitySim monthly partners-only check-in meetings, and the Gen3 Model training held by RSG on May 3 and 4.
  - Reviewed and helped finalize numerous project documents, including meeting agendas, meeting minutes, task order proposals, presentation slides, technical memoranda, reports, and other deliverables.
  - In coordination within the team and with other teams/departments, provided feedback on various consultant requests both in writing and through MS Teams meetings.
  - Provided technical support for various model development activities. Notable examples included:
    - Investigated the sensitivity of the Phase 1 time-of-day choice model. The investigation led to updates to the Gen3 Model. Subsequently, staff conducted two additional sensitivity tests to verify the reasonableness of the time-of-day sensitivity of the updated Gen3 Model.
    - Performed model estimation for the Gen3, Phase 2 Model: In support of Phase 2 model development, staff estimated three component models, namely, the Auto Ownership Model, the Mandatory Tour Frequency Model and the Coordinated Daily Activity Pattern Model. Staff coauthored the final Phase 2 model estimation report with RSG staff and presented the results to the Travel Forecasting Subcommittee (TFS).
    - Investigated the hyperpath issue in the Multi-Routing Algorithm of the Cube Public Transport (PT) software and implemented a workaround to partially address it. The issue and the partial workaround solution were documented in two technical memoranda.
    - Proposed a methodology to integrate the toll setting process in the Gen3 Model flow, which would significantly reduce model runtime and computation costs on the cloud.
    - Conducted Gen3 Model, Phase 2, sensitivity testing: Staff proposed changes to the Phase 2 sensitivity testing plan. Staff also proposed two additional sensitivity tests and the methodologies. One is related to Autonomous Vehicles (AVs). In preparation for this test, staff participated in training by RSG on calibrating the AV ownership model and successfully tested the calibration process on a small-area example model. The other test is related to equity. Staff conducted a literature review, proposed equity indicators, and developed computer scripts to compute proposed equity indicators for target and control populations. In preparation for the future-year sensitivity tests, staff also prepared the model inputs for the horizon year of 2045, created a spreadsheet to document the data sources, and conducted multiple year-2045 model runs to verify these inputs.
    - Developed Gen3 Model flowcharts and cleaned up Gen3 Model files: Staff developed two sets of flowcharts for the Gen3, Phase 1, Model and Gen3, Phase 2, Model, respectively. The flowcharts for the Gen3, Phase 2, Model have been incorporated into the Gen3 Model User's Guide. Based on the model flowcharts, staff also identified and removed unused model input files or script files.
    - Implemented a series of enhancements and bugfixes related to Gen3 Model.

- Throughout FY 23, staff assembled and provided modeling data in response to a variety of data requests from regional stakeholders.
- In FY 23, staff, working closely with COG's IT staff, completed the migration of COG's travel demand modeling and emissions modeling work from on-premises servers to the cloud (Amazon Web Services – AWS). Since then, staff started to conduct daily modeling work on the cloud servers. Staff conducted extensive testing on AWS platforms both before and after the migration. Staff conducted internal training on how to use the AWS servers for modeling work. Staff also worked with COG's IT staff and Bentley to investigate/resolve technical issues encountered on the cloud servers.
- TPB staff worked with COG 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.

Task 6	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILE EMISSIONS PLANNING	$2,265,565	$173,266	84%	51

6. MOBILE EMISSIONS PLANNING

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

Staff continued to attend coordination meetings related to scheduling tasks for 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).

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.

Staff attended TRB's Innovations in Travel Analysis and Planning Conference in Indianapolis, where air quality, climate change, equity, and advances in travel demand modeling topics were featured in several workshops.

FY 2023 Highlights / End-of-Year Recap

- Staff conducted tasks related to the 2022 Update to Visualize 2045 air quality conformity analysis, including development of documentation and additional analysis. The TPB approved the air quality conformity analysis (R16-2022) and adopted the 2022 Update to the Visualize 2045 LRTP and the FY 2023-2026 TIP (R15-2022) at its June 2022 meeting, and staff continued to conduct various activities related to the plan in FY 2023, Namely, staff conducted the environmental justice analysis to assess the plan impacts on overburdened and underserved populations using the updated definition of the Equity Emphasis Areas (EEAs) and documented the process in Appendix N of the plan document. Staff also produced additional technical reports and memoranda that documented the air quality conformity travel demand and emissions analysis processes in greater detail.
- Staff worked with Plan Development and Coordination staff to plan the activities related to the 2025 amendment to the region's updated LRTP, known as Visualize 2050. Staff produced air quality conformity timelines to align with development of schedules for State Implementation Plans (SIPs) and updated Motor Vehicle Emissions Budgets (MVEBs). In

addition, staff reviewed the policy portion of the Call for Projects document and assisted with the planning and implementing of a training session for the region's state and local agencies about how to input LRTP projects into the Project InfoTrak (PIT) database for the upcoming air quality conformity analysis of Visualize 2050.

- Throughout the fiscal year, staff worked closely with our neighboring regions e.g., (Calvert-St. Mary's Metropolitan Planning Organization [C-SMMPO]), federal partners, and the Association of Metropolitan Planning Organization (AMPO), among others, and coordinated activities related to various air quality and Performance-Based Planning and Programming (PBPP) tasks.

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 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.

Staff briefed the TPB Technical Committee on the Metropolitan Washington Air Quality Committee's (MWAQC) approval of the release for public comment of the update to the 2008 Ozone Maintenance SIP with new MVEBs (Other Business). The MVEBs were developed using EPA's latest emissions model, MOVES3. Staff sent the draft SIP document to the EPA for a preliminary review. In response to comments provided by the EPA and based on discussion at MWAQC Technical Advisory Committee (item #2), staff updated language in the body of the plan and in the appendix documenting on-road mobile emissions inventories. DEP staff provided the updated draft maintenance SIP document to the state air agencies for public comment in each state.

In support of the future mobile emissions modeling activities for air quality conformity and greenhouse gas (GHG) analyses, TPB staff briefed MWAQC-TAC on staff's need for updated 2023 vehicle registration data in calendar year 2024 (item #4).

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 coordinate planning activities with the state departments of transportation 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.

Staff 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. Staff also continued to hold internal discussions regarding ICF's response to the task order for the Regional Electric Vehicle Infrastructure Implementation Strategy study.

Staff fulfilled a data request and responded to follow-up inquiries made by a consultant working for the Washington Metropolitan Area Transit Authority (WMATA). Staff provided "distances travelled" and emissions from the EPA MOVES model outputs to enable the consultant to calculate emissions rates.

TPB and DEP staff drafted joint comment letters from TPB, CEEPC, and MWAQC for the EPA in support of two Notices of Proposed Rulemaking (NPRMs): 1) Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3, and 2) Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles. TPB staff briefed the TPB Technical Committee (Other Business) on the joint letters, and TPB approved the letter at the TPB Steering Committee meeting. The letters were subsequently submitted to the EPA docket.

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 greenhouse gases (GHGs). Staff also began to evaluate a draft version of the most recent developmental MOVES model, MOVES4, and will continue to monitor the model development activities related to the new tool.

In support of emissions modeling activities, TPB staff attended the Multi-Jurisdictional Organization (MJO) MOVES Work Group webinar.

<u>FY 2023 Highlight / End-of-Year Recap</u>

- Staff from COG's Department of Environmental Programs (DEP) and COG's Department of Transportation Planning (TPB staff) worked with state air agencies on 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 updated NOx and VOC inventories using MOVES3 and the latest planning assumptions and worked with DEP staff to update the documentation for the 2008 Ozone Maintenance SIP with new MVEBs. The Metropolitan Washington Air Quality Committee (MWAQC) approved the release of the update to the 2008 Ozone Maintenance SIP with new MVEBs for public comment. EPA's approval of new MVEBs is expected in FY 2024.
- TPB staff continued to work closely with Department of Environmental Programs (DEP) staff on plans related to development of the State Implementation Plans (SIPs) to address requirements of the 2015 Ozone National Ambient Air Quality Standards (NAAQS). Staff participated in discussions regarding the planning implications of the 2021 and 2022 ozone seasons and worked closely with senior management to understand and evaluate different planning options.
- Following findings and recommendations of recent climate planning activities undertaken in prior fiscal years (i.e., alternative fuels and vehicle electrification having the most significant potential to reduce GHG emissions), the COG Board of Directors established the Regional Electric Vehicle Deployment Working Group (REVD) to serve as a forum for members to collaborate and coordinate actions related to deploying electric vehicles and electric vehicle infrastructure. The group is staffed by both TPB and DEP staff, who coordinated activities to organize the work group meetings and begin work on the Regional Electric Vehicle Infrastructure Implementation Strategy (REVIIS) study, which is funded in part through the UPWP Technical Assistance Program.
- Staff continued to participate in climate change mitigation activities that could help the region reduce GHG emissions and reach the region's GHG reduction targets for the on-road transportation sector. Guidance documents for two new federal programs, the Carbon Reduction Program (CRP), established by the Bipartisan Infrastructure Law (BIL), and the Carbon Pollution Reduction Grants (CPRG) Program, established by the Inflation Reduction Act, were released during FY 2023. Staff became familiar with different elements of these implementation programs and with how they relate to the TPB activities. Specifically, the CRP provides funds for projects designed to reduce on-road transportation emissions and requires coordination between MPOs and state DOTs. TPB staff coordinated activities related to this program with state DOTs and provided briefings to relevant committees. The Climate Pollution Reduction Grants (CPRG) program will provide grants to states and local governments to develop and implement plans for reducing greenhouse gas emissions and other harmful air pollution. The CPRG is expected to establish a partnership between COG and the District of Columbia, with a priority climate action plan (PCAP) due in FY 2024.

- TPB staff continued to monitor legislative developments related to both GHGs and criteria pollutants, and work with the TPB and other relevant committees to submit comments. For example, most recently, staff drafted joint comment letters from TPB, CEEPC, and MWAQC for the EPA in support of two Notices of Proposed Rulemaking (NPRMs): 1) Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3, and 2) Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles. These rules are expected to move the region toward meeting both air quality and GHG emissions reduction targets. Following the TPB and committee briefings, the letters were submitted to the EPA docket.

Task 7	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL MONITORING AND DATA PROGRAMS	$2,199,575	$131,811	66%	53

7. TRAVEL MONITORING AND DATA PROGRAMS

7.1 Transportation Research and Analysis
- Staff participated in the ActivitySim Consortium meeting on June 1 to discuss the frequency of conducting future household travel surveys.
- Staff delivered a presentation on Household Travel Surveys State of Practice Recommendations to the TPB Technical Committee on June 2.
- Staff delivered a presentation on survey best practices to the Commuter Connections Employer Outreach Sales Training on Survey Design and Deployment on June 8.
- Staff provided HPMS data and expertise on the use of these data to Systems Performance Planning Program (SPPP) staff and attended meetings with SPPP staff and their on-call transportation planning consultant who needed to calculate roadway mileage by functional classification in the TPB planning region.
- Staff summarized the FY21/FY22 transit ridership data for inclusion in the RTDC.
- Staff discussed possible sources of parking lane data in the District of Columbia with Travel Forecasting and Emissions Analysis (TFEA) team staff who were updating the network.
- Staff provided observed non-local 2021 VMT for the District of Columbia to Travel Forecasting and Emissions Analysis team staff for work that they were doing for DOEE.
- Staff responded to two different data requests from universities, preparing and providing hourly traffic data and locational information from continuous counting sensors in northern Virginia and the District of Columbia. Subsequently answered follow-up questions from the requesters.

Data Requests

None

Meetings & Conferences

- Staff participated in biweekly meetings with the Gen3 Model Development Team.

FY2023 Highlights / End-of-Year Recap

- *Household Travel Surveys State of Practice Recommendations.* TPB staff conducted interviews with peer MPOs to learn about best practices in survey methodology and their recent survey

efforts to inform future COG/TPB survey planning efforts in a post-pandemic era. TPB staff also conducted interviews with FHWA to learn about the Next Generation Household Travel Survey (NextGen NHTS) Program and participated in their annual Technical Advisory Committee meeting in Atlanta. TPB staff also moderated and participated in the AMPO Data Working Group which focused on household travel survey methods. Based on these interviews and workshops, TPB staff developed a set of recommendations to implement in future household travel surveys. These recommendations were shared in a series of presentations to the TPB Technical Committee and TPB Travel Forecasting Subcommittee.

- *COVID-19 Literature Review.* TPB staff conducted a literature review of transportation surveys measuring the impacts to travel behavior from COVID-19 that inform regional planning. Following the literature scan and the memo focusing on survey design and sampling methods, TPB staff developed a memo with appendices summarizing the overall findings and trends in travel behavior across different phases of the pandemic. The key findings from the literature review were released through internal and external audiences in FY 2023, including the TPB Travel Forecasting Subcommittee, the TPB Vehicle Probe Data Users Group, and the 2022 AMPO Annual Conference. The memo will serve as a reference to help inform COG/TPB how the impact of COVID-19 on transportation is being studied by MPOs, federal/state governments, and academia.
- *RTS Follow-On Smartphone Panel Survey.* TPB staff evaluated the smartphone app-based survey methodology based on data from the 7-Day Regional Travel Survey (RTS) Follow-On Smartphone Panel Survey (SPS). The primary objectives of the SPS were to evaluate the effectiveness of the smartphone app-based survey methodology, to assess the quality of the data collected from a smartphone-app based survey, and to determine the feasibility of smartphone surveys for future survey efforts by TPB. The findings from the evaluation were documented in a memo. The findings from the SPS evaluation were shared in a series of presentations to both internal and external audiences, including the TPB Travel Forecasting Subcommittee, TPB Technical Committee, and the TPB Vehicle Probe Data Users Group. Staff

Staff collected, compiled, summarized, and prepared regional travel trends and travel monitoring data as data became available, including:

- A COVID-19 Traffic Volume Analysis using data from 2019 through 2022 from continuous count stations and the region's major airports. Snapshots created from these analyses are available on the COG website and these data have been referenced by multiple news outlets. In addition, staff presented the final analysis to the Travel Forecasting Subcommittee and included a supplemental analysis of 2022 day-of-week travel trends.
- Compiling and processing the 2019 and 2020 pavement and 2020 and 2021 bridge data and updating the earlier years' bridge and pavement data available for Performance Based Planning & Programming (PBPP) purposes and for inclusion in the RTDC. In addition, staff used the bridge and pavement data to produce and refine tables and charts for Performance Based Planning & Programming (PBPP) purposes.
- Researching the HPMS lane mile calculation methods used by each state for pavement condition reporting and updating the SAS programs and the regional HPMS feature classes to be consistent with the lane mile calculation method used in each state. Staff provided the updated databases and jurisdictional charts to TPB PBPP and Visualization staff.
- Staff offered expertise to other TPB staff on the regional National Bridge Inventory (NBI) and pavement databases and measures.
- Updating the regional HPMS geodatabase feature classes (including all jurisdictions in the TPB Modeled Region) for the years 2016 through 2020 to include consistent items and naming conventions. Each of these HPMS files has unique identifiers so that they can be

joined with pavement condition measurements developed for each year. These feature classes were prepared for use in the RTDC.

- Staff developed Python scripts to download the Arlington bicycle and pedestrian data by mode and inbound/outbound direction and used SAS to check the downloaded data quality. Staff then cleaned and formatted the daily and hourly data for use in the Regional Transportation Data Clearinghouse (RTDC).
- Analyzing data and drafting memos comparing the pre-pandemic, pandemic era, and post pandemic Arlington County trail usage. Staff presented these analyses to the Bicycle/Pedestrian Subcommittee, the Travel Forecasting Subcommittee, the Commuter Connections Subcommittee, and the TPB Technical Committee.
- Updating the AADT by counting station table with the 2020 and 2021 volumes from the District, Virginia, Maryland, and West Virginia. Staff updated previous years' RTDC hourly traffic files with the adjusted volume for two links to reflect their reversable lanes in the AM and PM.
- Staff obtained the 2021 base network from the TFEA team and began the process of assigning new or updated count stations to the links.
- Staff completed the FY20 transit ridership data development for inclusion in the RTDC. Staff shared the flowcharts showing how the data was summarized with fellow TPB staff and trained new staff on the process for FY2021.
- Updating the Vehicle Miles Traveled (VMT) files to include 2021 data. Staff revised the VMT trends workbook to include separate sheets showing: Year to year changes and cumulative growth in weekday VMT for the TPB Planning Region, the TPB Modeled Region and subregional groups, and to add population and VMT per for the TPB Planning Region and the TPB Modeled Region. Staff revised the Vehicle Miles Traveled (VMT) geodatabase tables available to the RTDC to better mirror the data available in the updated Vehicle Miles Traveled (VMT) trends workbook. Staff updated the documentation that accompanies the geodatabase tables and the workbook.
- Staff continued to work together to update and refine the standard datasets available in the RTDC.
- Staff continued to respond to transportation data inquiries and questions from COG/TPB staff, federal, state and local partners, universities, and consultants.
- Staff attended several FHWA, AASHTO, state, local, and vendor sponsored conferences and webinars as well as COG/TPB committee, subcommittee, and user's group meetings and workshops.
- Staff participated in Regional Trail Count Program quarterly meetings.

7.2 Data Management and Visualization Services

- Staff continued to review comments received from jurisdictional staff regarding updates to the National Capital Trail Network (NCTN) map and underlying database. Staff continued to provide TPB's bicycle and pedestrian planner with suggested edits and additional information about projects in the Project InfoTrak (PIT) database that impacts the NCTN. This work is ongoing.
- Staff worked with the Planning Data and Research Program director to provide resources to Virginia Department of Transportation (VDOT) staff in support of adjusting urban area and MPO boundaries based on data from the 2020 Census.
- Staff continued to work with the Planning Data and Research Program director by providing feedback to the tools/websites being developed for identifying resources available for grant opportunities under the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA).
- Staff completed development of an interactive website featuring searchable databases of grant opportunities available through the Infrastructure Investment and Jobs Act (IIJA) and

Inflation Reduction Act (IRA). This website was announced to the COG Board of Directors at its June meeting.

- Staff responded to a request from the Department Director for some spatial statistics related to the proximity of Metrorail stations to COG's Regional Activity Centers (RAC) and Equity Emphasis Areas (EEA).
- Staff responded to support incidents related to intermittent unavailability online resources through ArcGIS Online. Staff implemented protocols to minimize downtime and reconfigured data to provide optimized data reliability.
- Staff responded to an inquiry from fellow DTP staff regarding the availability of a regional dataset of the existing transportation system for the region.
  Staff responded to a question from fellow DTP staff regarding geocoding data in ArcGIS Online and ArcGIS Desktop software.
- Staff responded to a question from fellow staff regarding the alignment of the TPB boundary with Virginia Department of Transportation (VDOT) district boundaries.
- 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 continued to perform administrative updates for TPB/COG's ArcGIS Online organizational account, including managing users, adding account access, and organizing content.
- Staff began work to implement the prerequisites for upgrading TPB/COG's GIS servers. Staff upgraded the ArcGIS Server software environment and began the process of replacing hardware. This work is ongoing.

GIS Committee/GDX Working Group

- Staff began to plan the July GIS Committee/GDX Working Group virtual meeting.

Data Requests
- Staff responded top a data request from a graduate student at University of Maryland for hourly traffic volumes from January 2020 through December 2022.
- Staff responded to a request from COG's Housing Program Manager regarding the availability of a graphic version of a map of COG members.

Meetings & Conferences
- Staff attended and participated in a meeting to discuss Virginia's Urbanized Area boundary smoothing process on June 1.
- Staff attended a meeting to discuss the GIS approach for climate assessment with TPB staff and consultants on June 1.
- Staff attended a meeting on June 1 regarding the forthcoming HCT Intercity Bus Study.
- Staff attended a webinar from the US Department of Transportation (DOT) on June 5 on updates on the Justice40 initiative at DOT and the newly updated and released ETC Explorer.
- Staff held a meeting with Esri professional services staff regarding the upcoming ArcGIS Server/Enterprise jumpstart on June 14.
- Staff hosted a meeting with staff from COG's Department of Environmental Programs (DEP) on June 15 regarding upcoming changes to TPB/COG's GIS hardware and software environment.
- Staff attended a meeting regarding Fauquier County's Urban Area boundary on June 15.
- Staff attended an online seminar from StreetLight on pedestrian data on June 15.
- Staff attended and participated in a meeting with fellow TPB staff regarding the Visualize 2050 plan update on June 16.

- Staff attended the webinar "Leveraging Teralytics Movement Data in Bentley Mobility Simulation Software" on June 27th.
- Staff attended the Region Public Transportation Subcommittee meeting on June 27.
- Staff participated in meetings and email exchanges with the Travel Forecasting and Emissions Analysis Program team and their contractor, RSG.

FY2023 Highlights / End-of-Year Recap

- Staff continued to work on obtaining, processing, and updating to update the standard datasets available in the RTDC. Staff continued to work together to update and refine the standard datasets available in the Regional Transportation Data Clearinghouse (RTDC). Data updates include annual enplanement data, Airport Analysis Zones (AAZ). traffic, vehicle miles traveled (VMT), and cooperative forecasting data among others. Staff also included non–spatial datasets (document links) – State of the Commute Survey, COVID–19 Snapshots, and the Regional Economic Monitoring.
- Staff updated the RTDC VMT files to include 2020 data. During this process, staff identified issues with some of the input data and worked with the issuing agencies to obtain explanations and updates.
- Staff worked with FHWA staff to obtain HPMS data not available from the FHWA Hosting website.
- Staff worked with the Planning Data and Research Program director to provide resources to TPB/COG, Virginia Department of Transportation (VDOT), and Maryland Department of Transportation (MDOT) staff in support of adjusting urban area and MPO boundaries based on data from the 2020 Census. Staff created interactive map products to show the new 2020 Census Urban Areas (UA) in conjunction with TPB's current planning area boundaries and other relevant data.
- Staff refined the way traffic related datasets are shared to RTDC. Staff replaced available the Hourly Traffic Volumes and Classification Counts (formerly available as geodatabase tables) with ZIP files for each available year, containing CSV tables for each state. Staff also created new and updated current metadata to reflect these changes. As part of the reorganization, staff also created a new dataset of available Traffic Count locations.
- Staff developed an interactive data dashboard application to show the required Performance Based Planning and Programming (PBPP) data-- bridge condition of structures on the National Highway System (NHS) from the National Bridge Inventory (NBI) and pavement condition for NHS facilities in the TPB Planning area. Staff created several items of online content to develop the product in addition to the offerings previously added to the RTDC.
- Staff supported the Systems Performance team with geospatial and database support for updating the National Capital Trail Network (NCTN) data. Staff provided extensive review of the data and developed data standards for projects included in the Project InfoTrak (PIT) that are NCTN projects. Staff provided a detailed Excel workbook to Systems Performance staff for feedback and guidance. Staff developed draft networks and web maps and applications to show progress to the Bicycle and Pedestrian Subcommittee throughout the year.
- Staff updated the existing HCT- EEA Hub Page to reflect the 2022 approved changes to TPB's Equity Emphasis Areas (EEA). Staff obtained 2020 American Community Survey (ACS) data from the Census Bureau for the TPB Planning region to update several datasets used in applications featured on the Hub page. Staff added the 2022 update to Equity Emphasis Areas (EEA) to the). Staff created a new content item for the 2022 data and updated the 2018 metadata. Staff also created a file geodatabase download option for the 2022 data that provides improved attribute field names when downloading the data. Staff also reviewed the current EEA web mapping application and made updates to the functionality and data references.
- Staff developed the online resource "TPB's Resource Inventory Page (TRIP)." This page catalogs many of the mapping applications, data visualizations and other datasets produced by TPB, for TPB or that utilize TPB data and/or support our programs in some way. The page is organized

into data categories and includes links to geospatial datasets as well as tabular data, webpages and other products that utilize TPB's data.

- Staff reviewed and provided feedback to fellow TPB/COG staff regarding UPWP and other products that have a geospatial or visualization component. Staff provided input to the department wide MPO Certification Review document. 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 feedback and guidance to the Department of Environmental Programs (DEP) staff for their Electric Vehicle (EV) infrastructure implementation strategy project. Staff worked with the Planning Data and Research Program director on identifying specifications and possible data sources for developing a website for tracking grants opportunities under the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA).

- Staff continued to respond to inquiries and questions regarding data available in the RTDC form COG/TPB staff, state and local partners, and consultants. Staff also responded to data requests not related to RTDC content and consulted with fellow TPB staff as required.

- Staff created several updated static map products at the request of various fellow staff throughout TPB/COG. Products include products related to the 2022 update to the Equity Emphasis Areas (EEA), 2020 Urbanized Area boundary reference maps, and a map of Department of Defense installations with resilience planning underway or planned.

- Staff continued to support Commuter Connections staff with updating the underlying data that was used to create the 2023 Bike to Workday web map used on COG's Bike to Work Day (BTWD) website (https://www.biketoworkdaymetrodc.org.

- Staff attended the Association of Metropolitan Planning Organizations (AMPO) annual meeting in Minneapolis, MN October 24-28. Staff also attended the Towson University GIS Conference (TUgis), and regularly attended meetings of the Maryland State Geographic Information Committee (MSGIC) throughout the year. Staff also attended several FHWA, AASHTO, AMPO, Census Bureau, and vendor sponsored meetings and webinars as well as COG/TPB committee, subcommittee, and user's group meetings and workshops.

- Staff attended meetings of the Cooperative Forecasting and Data Subcommittee, the Chief Information Officers Committee (CIO) and theCAD2GIS Working Group, Regional Public Transportation Subcommittee (RPTS) and Vehicle Probe Data Users Group (VPDUG), Bicycle and Pedestrian Subcommittee and other COG/TPB committees throughout the year as required.

- Staff regularly participated in meetings and email exchanges with the Travel Forecasting and Emissions Analysis Program team and their contractor, RSG, to clarify traffic data needs for Gen3 Model development.

- Staff continued to provide staff support to the GIS Committee and NCRGDX Working Group and hosted six joint meetings. Staff continued the process of transitioning the Committee/Working Group staffing.

- Staff worked to encourage more active participation in GIS Committee/NCR GDX Working Group meetings through soliciting presentations on a broader range of topics. Topics at meetings in FY2023 included: USGS regional data collection projects and stormwater networks, DC FEMS Fireboat Team's use of the NCR/GDX, COG/TPB's Performance-Based Planning and Programming (PBPP) dashboard, Fairfax County erosion and 3D flood impact mapping, ArcGIS for security operations, Land Cover classification using an ESRI deep learning model, various roundtable discussions, and regular status reports on the NCR-GDX, NextGen 9-1-1, and the DC HSEMA Food and Water Resilience project.

- Staff participated in meetings of the Chief Information Officers Committee and meetings with COG's Food Security staff. Staff worked with staff from other COG program areas to better facilitate and coordinate engagement with the GIS Committee.

- Staff continued to help the Department of Environmental Programs (DEP) staff with supporting DEP's online resources in ArcGIS Online, providing access and technical assistance and

troubleshooting enterprise geodatabase access permissions. Staff also provided subject matter expertise and advisement on data related to the Prince George's EV dashboard project being developed with consultant support and provided data for that project.

- Staff continued to monitor and administer TPB/COG's geospatial hardware and software. Staff met with COG's Information Technology (IT) staff regularly to discuss the server and data resources administered by the Planning Data and Research (PDR) team. Staff also coordinated with IT staff to install ArcGIS software on staff workstations. Staff also developed a plan and timeline to upgrade and migrate TPB/COG's GIS hardware and software to a virtual environment. Staff worked with COG's Procurement staff to develop a purchase order to retain consultant services to support this work.

Task 8	BUDGET	Billed this month	% Funds Expended	UPWP Page
REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION	$1,115,429	$101.599	87%	57

8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION

8.1 Regional Land Use and Transportation Coordination

Round 10 Coordination

- DCPS completed and presented an update to the suggested baseline employment estimates for the Metropolitan Washington Council of Government's Cooperative Forecasting program at the June 2023 Forecasting Subcommittee meeting.
- DCPS staff worked with COG Executive Office to schedule action by the COG Board of Directors on the final Round 10 Cooperative Forecasts at the June 14 meeting, during which the Forecasts were approved unanimously.

Economic Monitoring

- DCPS staff completed the Commercial Construction Indicators 2022 report, presenting it to the Cooperative Forecasting Subcommittee at their June meeting. Among the significant finds: new construction increased 24 percent from 2021 to 2022. In 2022, 148 new commercial buildings were completed, adding 13.2 million square feet of rentable space to the region. the overall regional vacancy rate was 10.6 percent at the end of 2022, the highest rate in 11 years. Office vacancies have risen significantly since the pandemic and the office vacancy rate is now higher than any other year in the database, at 15.9 percent.
- DCPS staff prepared the June 2023 Regional Economic Monitoring System (REMS) report which noted.
  - o In May, over-the-year employment increased by 62,000 jobs or 1.9 percent in the Washington Metropolitan Statistical Area (MSA), while the national over-the-year employment increased by about 4.0 million jobs or 2.6 percent. Locally, the Leisure & Hospitality Sector gained 17,400 jobs and the Professional & Business Services Sector gained 3,800 jobs during the last year. (373,800 jobs were lost between March 2020 and April 2020) The Washington region has recovered 402,300 jobs between April 2020 and May 2023 – 100.9 percent recovery.
  - o The region's inflation decreased in May to 3.1 percent from a rate of 3.7 percent in March.

- o During May, the region's unemployment rate increased to 2.6 percent, while the national rate increased to 3.4 percent. The 1,528 new housing units authorized during May 2023 represent a 48.8 percent decrease from May 2022, when 2,985 new units were started.
- DCPS staff continued work to develop a draft 'Regional Economic Profile' report for potential distribution at the Board Retreat. The profile report tracks more than two dozen indicators on employment and labor force, population and housing, and other economic and transportation indicators.

FY2023 Highlights / End-of-Year Recap

DCPS activities to support socioeconomic forecasting during FY2023 focused principally in 3 areas: work to develop the Round 10.0 Cooperative Forecasts; ongoing efforts to support the COG/TPB housing targets for production, location and affordability; and monitoring of the region's economy to support COG/TPB goals and track performance of the Cooperative Forecasts. A summary of specific accomplishments during is listed below.

Planning for Round 10

- DPCS staff finished geo-coding of the DataAxle employment file and continued to share individual jurisdictional databases with Subcommittee members.
- DCPS staff presented a summary of preliminary QCEW data for year 2021 (short-term employment trends); Prince William County staff briefed the Subcommittee on employment records (QCEW or Data Axle) geocoded to residential addresses (i.e. home health services, locksmiths, IT contractors, janitorial services); and Fairfax County staff presented a detailed description of their jurisdictional cohort component model assumptions (i.e., fertility, mortality, etc.)
- DCPS staff visited one-on-one to discuss support for developing Round 10 Forecasts with local planners in Prince William County, Manassas, Fairfax County, Falls Church, and Montgomery County.
- DCPS staff worked to develop presentations on the Round 10 Forecasting Model and the Round 10 process for, respectively, the Cooperative Forecasting Subcommittee and the TPB Technical Committee.
- DCPS staff developed and presented a detailed PowerPoint on the draft Round 10 Econometric Model at the September Cooperative Forecasting Subcommittee and Planning Directors Committee meetings.
- DCPS staff continued work analyzing CoStar data to develop the 2021 Multi-family Rental Construction Report.
- DCPS staff continued work to assess the draft Round 10 Econometric model in anticipation of preliminary jurisdictional Forecasts that are expected for the November 8, 2022 CFDS meeting.
- DCPS developed and presented a detailed assessment of the preliminary draft Round 10 forecasts at the regional level and presented the results to the Cooperative Forecasting Subcommittee and the Planning Directors Committees at their October meetings.
- DCPS developed and presented an updated assessment of the preliminary draft Round 10 forecasts at the regional level and presented the results to the Cooperative Forecasting Subcommittee at their November meetings.
- At its April meeting, the Planning Directors approved the revised draft jurisdictional Round 10.0 Forecasts and recommended their transmittal to the COG Board. Staff will brief the Board at their May meeting on the jurisdictional Round 10.0 Forecasts, with approval likely during June.

- DCPS staff presented the draft regional Round 10.0 Cooperative Forecasts to the COG Board on April 12, 2023.
- DCPS staff presented the draft jurisdictional Round 10.0 Cooperative Forecasts to the COG Board on May 10, 2023. In presenting the new Forecasts, staff noted that:
  - The District of Columbia contains the greatest number of jobs in 2020 (785,900) and anticipates the greatest increase in jobs between 2020 and 2050 (+235,700).
  - Fairfax County contains the greatest number of people in 2020 (1.2 million), while Prince George's County would see the greatest increase in population between 2020 and 2050 (+237,000).
  - Fairfax County contains the greatest number of households in 2020 (417,500), while Prince George's County would see the greatest increase in households between 2020 and 2050 (+129,000).
- DCPS completed and presented an update to the suggested baseline employment estimates for the Metropolitan Washington Council of Government's Cooperative Forecasting program at the June 2023 Forecasting Subcommittee meeting

Housing Targets

- Staff received 24 competitive applications for the Housing Affordability Planning Program (HAPP) grants funded by Amazon and is beginning work to assess them. Modeled after TLC and other DTP programs, HAPP will competitively award small grants of up to $75,000 each for efforts to maintain or increase affordable housing in HCTs and EEAs.
- COG hosted a joint meeting of the Planning Directors Technical Advisory Committee and the Housing Directors Advisory Committee to discuss progress on housing production since adoption of the 2019 COG Housing Targets.
- DCPS staff completed the Multifamily Rental Housing Construction Indicators Report for 2021, presenting it to the Cooperative Forecasting Subcommittee.
- To further COG and TPB goals for increasing housing near high-capacity transit stations (HCTs), DCPS Housing staff continued work with accounting to complete transmittal of the Housing Affordability Planning Program (HAPP) grant awards to recipients. Housing staff also began development of a process for monitoring performance for grant awardees.
- DCPS staff briefed the Prince George's County Council on the COG Housing Targets at their January 10 meeting and the Montgomery County Council Planning and Housing Committee at their January 30 meeting.
- DCPS Director briefed the COG Board on progress towards achieving the regional Housing Targets at their February 8 meeting.
- DCPS Housing 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
- In May 2023, DCPS and COG announced the second round of competitive funding for the Housing Affordability Planning Program (HAPP). HAPP, administered by COG and financed by the Amazon Housing Equity Fund, helps advance the region's shared housing targets to increase the amount, affordability, and accessibility of our housing supply and work toward creating more transit-oriented communities.

COVID Economic Impacts monitoring

- DCPS staff completed the report, Commercial Construction Indicators: 2021 Development Projects (June 2022) and briefed the Cooperative Forecasting Subcommittee on the findings.
- DCPS staff continued to update the PowerPoint presentation that documents the effects to date of COVID on the region's economy. Recent data showed that the region has recovered a

lower share than the national average of jobs that were initially lost at the onset of the Pandemic, and staff began to compile additional data on 'recovered' jobs in the COG region and peer MSAs. Data also continue to show that the Washington MSA has lower 'return to office rates' (as measured by security key card use) than the national average for the 10 largest MSAs. Staff noted a slight uptick in office occupancy began after Labor Day but quickly plateaued and has now declined slightly, remaining at approximately 47 percent "occupied" since the Fall.

- DCPS Director briefed COG Board members on COVID impacts to the employment, land use, and changes in office space utilization during the July 2022 COG Leadership Retreat in Cambridge, MD
- DCPS staff produced 12 issues of the monthly Regional Economic Monitoring System which tracks changes in the region's economy, including a brief overview and graphs that show inflation rates, job growth, unemployment rates, new housing starts, and at-place employment by industry group.
DCPS Director participated as a panelist at the February annual meeting of the Montgomery County Business Advisory Panel (BAP) to develop consensus outlook estimates for Montgomery County Tax and Revenue.

Task 9	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILITY AND ENHANCEMENT PROGRAMS	$1,082,497	$197,479	77%	59

9. MOBILITY AND ENHANCEMENT PROGRAMS

9.1 Enhanced Mobility Grant Program

During the month of June, TPB Staff prepared for the 2023 Enhanced Mobility grant solicitation to run from August 1st through September 30th, 2023. Activities included scheduling and organizing pre-application conferences, preparing and finalizing application materials and resources, presenting to the TPB and various COG & TPB subcommittees announcing the upcoming solicitation, and conducting the marketing and communications campaign to inform stakeholders and the public of the upcoming solicitation.

FY2023 Highlights / End-of-Year Recap:

- The planning element of the Human Services Transportation Coordination Program, including supporting the implementation of the Coordinated Plan by furthering the goals and strategies in the plan to provide an array of transportation services and options to older adults and people with disabilities.
- Finalizing the required update of the Coordinated Plan and receiving TPB approval in May 2023.
- The UPWP does not provide financial support to implement the projects and oversee the grants that have been awarded. These activities are funded by the FTA Section 5310 Program.

9.2 Regional Roadway Safety Program.

TPB staff developed preliminary scopes of work for each of the FY 2024 funded projects and met with jurisdictional staff for each project to finalize the statements of work.

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

- VA (City of Alexandria – Duke Street Safety Improvements) – The consultant delivered to City staff finalized concept design plans, cost estimates, and responses to comments. This project is considered complete.
- MD (Maryland National Capital Park and Planning Commission/M-NCPPC – Walker Mill Road Improvements) – The consultant delivered to M-NCPPC staff the draft final report. This project is considered complete.
- MD (Prince George's County – Pedestrian Road Safety Audits) – The consultant delivered to County staff for review a draft memorandum summarizing findings from the road safety audit and subsequently finalized the memorandum based on comments from County staff. This project is considered complete.
- MD (City of Rockville Beall Avenue Feasibility Study) – The consultant developed and delivered a final report and planning-level estimates to City staff. This project is considered complete.

FY2023 Highlights / End-of-Year Recap

- All four (5) FY 2023-funded RRSP projects completed as scheduled.
- Eight (8) FY 2024-funded RRSP project proposals were approved by the TPB, for completion in FY 2024.

9.3 Transportation Alternatives Set-Aside Program

The solicitation for TAP applications in Maryland was conducted between April 14 and May 15. At the end of May, MDOT staff sent TPB staff seven applications to consider for funding in our region. A selection panel met twice at the end of June to develop recommendations for funding. The panel's final recommendations called for funding six projects. The TPB was scheduled to approve projects for funding in July.

FY2023 Highlights / End-of-Year Recap

Under federal law, the TPB is responsible for selecting projects for the funding sub-allocated to the TPB from the federal Transportation Alternatives Set-Aside Program. These selection processes are conducted separately for each of the TPB's three state-level jurisdictions. In FY 2023, the TPB selected projects for Maryland and the District of Columbia. Virginia conducts its selection activities on a two-year cycle.

Activities in FY 2023, listed below, included coordination with the state DOTs, and evaluation, selection, and approval of projects for funding.

- June-July 2022 – TPB approved $5,169,450 for Maryland in FY 2023 funding.
- October-November 2021 – TPB approved $2,300,000 for D.C. in FY 2023-2024 funding (DDOT moved to a two-year cycle starting with this round.)
- June-July 2022 – TPB approved $3,285,589 for Maryland in FY 2024 funding.

9.4 Transportation/Land-Use Connections (TLC) Program

Staff continued the consultant recruitment process for the 10 TLC projects selected for FY 2024. Pre-qualified consultants filled out a questionnaire in June in which they indicated their levels of interest in the projects. Based on that input, staff identified consultants from whom proposals were solicited. The proposals were due in July. Final consultant selection is expected in August and the project

Work on all 10 TLC projects for FY 2023 was completed. Consultants submitted final products and COG paid final invoices.

FY 2023 Highlights / End-of-Year Recap

Staff accomplished activities described for this task in the UPWP. These included:

- Ten TLC projects for FY 2023 were conducted and completed. Activities included consultant selection, project oversight, and project administration. Task orders for the projects totaled $630,000.
- Ten TLC for FY 2024 were selected. Activities included solicitation of applications, evaluation of applications, and selection and approval of projects for funding. Task orders for the projects total $755,000.
- Staff developed a new database for the website to readily share information about the 177 TLC projects that have been funded to date. Staff shared information about the TLC Program, in a variety of other ways, including articles and website updates.
- Staff conducted a webinar in called "Promoting Vibrant Communities and Safer Roads: A webinar celebrating 15 years of planning assistance to local governments in metropolitan Washington." The webinar featured presentations from nine projects funded in 2022 through the TLC program, as well as the Regional Roadway Safety Program and the Transit Within Reach Program. A recording of the 75-minute webinar was posted on the website and the event was made available for AICP credits from the American Planning Association.

Task 10	BUDGET	Billed this month	% Funds Expended	UPWP Page
TPB MANAGEMENT AND SUPPORT	$989,546	$198,264	71%	61

10. TPB MANAGEMENT AND SUPPORT

Transportation Planning Board Committee Support and Management

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 meetings of other agencies whose programs and activities relate to and impact the TPB work program.
- 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.

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
- MWCOG 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 of all the Department's activities. Work activities the Director participated in during the month of JUNE 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 a meeting with the Program Directors and project staff to review the progress and briefing material for 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 JUNE FY 2023 includes Telephone / Web Ex / Microsoft Teams Communications:
- Working with COG on CG Retreat's session on WMATA Funding Retreat Speaker Check-in
- COG's 2023 Board & Leadership Retreat – Economic and Workforce Dev. Session Planning
- Review and sign off on Federal Grant Tracking Website
- COG Board & Leadership Retreat 2023
- CAO Meeting
- State Air Agencies Coordination Meeting
- June COG Board Prep
- Cost Principles for Nonprofits & State and Local Governments – Training
- COG Board
- MWCOG – REMI Meeting
- REMI TranSight Economic Modeling Meeting
- Fauquier County and VDOT Urban Area Boundary Discussion
- COG Planning Directors
- COG Wide Staff Meeting
- TPB Board Meeting
- Transit Reps @ MPO
- USAID – Vietnam Delegation
- MWAQC – EJ Project Discussion with Staff
- TPB Access For All Meeting
- DOT Surface Transportation Needs
- NoVA MPO FY 2024 UPWP Funding – VDOT

FY2023 Highlights / End-of-Year Recap and other additional activities by the TPB Staff Director	
May FY 2023	
Chief Administrative Officers Committee (monthly)	Title VI Next Steps
EPA Mid Atlantic Summit – Presentation on EEAs – Internal review	Meet Maryland Transportation Secretary w/ TPB Chair at MDOT Headquarters
2020 Census Data Based MPO Boundary Updates – Discuss with MDOT and BRTB	Board de-brief / D. Koenig - FTA
COG Board Meeting	VDOT CRP Funding
April FY 2023	
TPB Background /Orientation – City of Takoma Park	EPA Mid-Atlantic Planning Summit – Discuss COG presentation @ EEAs
CAO's Monthly Meeting	COG Retreat Plannings on Economic Development & Metro– C. Mercer
SYIP & Joint Legislative Meeting - VDOT	Maritime Administration (MARAD) Outreach Phone call
Members of the Public & CAC Teams Meeting	Bike-to-Work Day - COG's Staff Event Planning
COG Budget & Finance Committee	Region Forward Coalition Meeting
March FY 2023	
HAPP Check-in – P. DesJardin	WMATA/MSC Meeting
Federal Certification Meeting Prep – L. Erickson	TPB Visualize 2050 Schedule – K. Umstattd
Maryland Transit Caucus Review – E. Randall	Regional Electric Vehicle Deployment Working Group – R. Christopher
CRS Discussion – MDOT / S. Kiernan	Title VI Training – S. Pandak
MD General Assembly Transit Caucus Briefing	Major Metros Roundtable – E. Zimmermann
Federal Certification Review – March 8 & 9	MDOT Transportation Secretary @ Head Office – P. Wiedefeld
EXTRL Meeting – C. Mercer & R. Clarke	Procurement Basics – R. Konrad
Technical Assistance TEAMS Meeting w/ WMATA	COG Board Executive Meeting
Call w/R. Collins	TPB Visualize 2050 Listening Session
TPB/WMATA Follow-up	Virginia Visualize 2050 Proposed Projects
Call w/E. Glass – Montgomery County	Maryland Visualize 2050 Proposed Projects
SYIP & Legislated Joint Meeting (District 8)	
FEB FY 2023	
CAO's Monthly Meeting	TPB Board Meeting
DDOT FTA 5303 Funding for TPB Reconciliation	COG CFO – COG FY 24 Budget Review
MD General Assembly – Discuss request from Transit Caucus	Fighting Hate for Good Antisemitism - Webinar
MWAQC Executive Committee Meeting	Certification Review Meeting - FTA
COG & WMSC Lunch – EDs	DC Council Performance Oversight Hearing

NVTC – ED Discussions 2-Better Bus	Major Metro Roundtable - NARC
JAN FY 2023	
DTP Planning Directors Briefing	COG Regional Planning Overview – COG ED
DMV's Hydrogen HUB Application – COG-ED	COG Office Operations /Covid Policies – COG ED
TPB Overview & Introduction – Councilmember M. Balcombe	COG Planning Director Committee Meeting
COG 2023 Board Executive Committee Luncheon	NARC -- Major Metros Meeting
COG - Board of Directors Meeting	DDOT & TPB Coordination Meeting at CRP
COG Financial Briefing – COG ED and CFO	TPB – CAC Chair On-Boarding
Metrorail Safety Commission – ED	
Discussions with MD General Assembly Board Member (Bus Trip)	Participate in COG ED Search Committee
Discussions with COG Incoming Chair	Participate in COG Audit Committee
TPB 2023 Officers Nominated Committee	Participate in COG Board Legislative Committee
Discussions with BRTB at MD Bus Tour	
NOV FY 2023	
CAO's Monthly Meeting	Update Meeting – K. Mattice
System Performance, Operation Subcommittee	Briefing – TPB Chair
Carbon Reduction Program Discussion - MDOT	2024 Plan Update – VDOT & WMATA
MWAQC Executive Committee	UPWP Brainstorm – DTP Directors
COG Board of Directors Meeting	MD Legislative Tour for Delegates – with TPB Member Delegate Korman
Safety Work Session Agenda	COG Board Meeting Outlook – Incoming Chair
OCT FY 2023	
SIP and Plan Update from COG's CEAP	Interview – Washington Post Transit Services & Ridership
Virginia's Carbon Reduction Program	COG Planning Directors Meeting
COG & Connected DMV Hydrogen Briefing	Interview – Washington Post: Dulles Airport & American Legion Bridge 60th Anniversary
TPB / DDOT Check-in	TPB / BRTB Check-in
COG COA's Monthly Meeting	
SEPT FY 2023	
CAO's Monthly Meeting	October COLG Board Climate Discussion
Montgomery County Climate Impact Assessment Bill	EJ Analysis Phase II Results Draft Review
TPB - WMATA Coordination	Climate, Energy & Environment Policy Committee
COG Planning Directors	Resiliency Planning Next Steps (UPWP)

MVEB Planning Meeting	Metropolitan Washington Air Quality Committee
COG Housing Directors' Advisory Committee Meeting Hour	Better Bus Network Redesign TPB Inputs Meeting with WMATA
AUGUST FY 2023	
WMATA Financial Plan for LRTP / Internal Discussions	FY24 Member Dues / COG-CFO
Interim Plan Update – Fed. Req. / FHWA	Planning Team Leadership / Executive Director Recruitment
Post – Pandemic Pivot Debrief / Internal Discussions	Montgomery County Equity Focus Areas – Internal Discussion
TPB & 2024 Plan Update Conformity / Internal Discussions	SIP Planning Activities / Internal Discussions
EJ and the DOE Hydrogen Hub Bid	Travel Behavior Surveys during Pandemic / Staff Brown bag
Samuel Sneed & Staff / Anne Arundel County	Interview / Virginia Mercury
PBPP Greenhouse Gas Emissions Measure NPRM / Internal Discussions	IIJA's Carbon Reduction Program – MPO Consultation / BRTB
CPG - IRE – Regional Economic Development Project Update	WMATA / D.C. Council Chair P. Mendelson
TPB UPWP Funding - FTA / DDOT	
JULY FY 2023	
WMATA/TPB Discussion	COG Annual Leadership Retreat Preparation
MWCOG & NVTC Call	Joint Panning Directors / Housing Directors Meeting
LRTP Update Brainstorm x 2	Inside NOVA Interview @ CCMS
CEEPC Planning	Update COG ED @ COG's GHG Inventory Method
FY23 Resiliency Planning NARC's Major Metros Roundtable Meeting x 2	COG Metro Legislative Group Discussions

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	$1,249,736	$192,899	59%	63
District of Columbia	$279,633	$20,804	25%	63
Maryland	$442,970	$94,489	69%	65
Virginia	$334,844	$77,269	67%	68
Regional Transit	$192,288	$335	70%	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.

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.

FY 2023 Highlights / End-of-Year Recap

Staff supported administering the TLC and Roadway Safety Program projects funded through District of Columbia Technical Assistance Program.

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.

2. Project Planning, Feasibility, and Special Studies

No activity.

3. Transportation / Land Use Connections Program

As part of the Transportation Land-Use Connections Program, four technical assistance projects in Maryland were fully or partially funded under this PE number. The projects were completed on time and within budget by the end of the fiscal year. See TLC item above (9.3) for further details about the TLC 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.

FY 2023 Highlights / End-of-Year Recap

Staff supported administering the TLC and Roadway Safety Program projects funded through Maryland Technical Assistance Program.

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.

2. Travel Monitoring and Survey

Active Transportation Counts

The traffic counting consultant summarized and delivered the data from the active transportation counts that they performed in the Tysons area of Fairfax County in May 2023.

Staff drafted the report on the fall 2022 active transportation counts performed at various locations in northern Virginia and delivered it to VDOT staff for review and comment. After receiving comments from VDOT, staff finalized the report and delivered it to VDOT staff with the individual excel data files.

Staff began preparation for the FY24 I-66/I-395 Mode Share Study, including: reviewing the count list and creating the list and maps, contacting all the transit operators to confirm data availability for the counting time, and sharing the finalized counting list, maps and draft task order with VDOT and NVTC to review.

3. Travel Demand Modeling

4. Transportation / Land-Use Connections Program

As part of the Transportation Land-Use Connections Program, two technical assistance projects in Virginia were fully or partially funded under this PE number. The projects were completed on time and within budget by the end of the fiscal year. See TLC item above (9.3) for further details about the TLC Program.

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.

FY2023 Highlights / End-of-Year Recap

- Staff supported administering the TLC and Roadway Safety Program projects funded through Maryland Technical Assistance Program.
- Staff developed project scopes and budgets and reviewed cost proposals for the fall 2022 and spring 2023 Active Transportation Counts.
- Staff managed and completed the following tasks/projects:

- o Staff reviewed the counts, analyzed the data, and drafted the report detailing active transportation counts and analysis done at locations along the Fairfax County Parkway Trail in the spring of 2022. Staff provided the draft report to VDOT staff for review and comment, and subsequently finalized the report and data files.
- o After the traffic counting consultant conducted active transportation counts at locations in northern Virginia in the fall of 2022, staff reviewed the counts, analyzed the data, drafted the report, delivered it to VDOT staff for review and comment, and finalized the report and data files.
- o Staff added the FY 2023 counting locations and data to the redesigned active transportation geodatabase layer that staff produced in FY 2022.
- o The traffic counting consultant conducted active transportation counts in the Tysons area in May 2023. The data will be reviewed and analyzed, and the report will be completed in FY 2024.
- o Staff reviewed VDOT active transportation Eco Counter materials for the Transform 66 project and visited two sites to observe the installation process.
- o Staff began preparation for the FY24 I-66/I-395 Mode Share Study.

11.D Regional Transit

1. Program Development, Data Requests, and Miscellaneous

2. Transit Within Reach

The application period for FY 2024-2025 opened on May 26, 2023, and will close on August 4, 2023. Potential applicants had the option to submit an abstract by June 23. Staff provided comments in July in response to that abstract.

FY2023 Highlights / End-of-Year Recap

In the inaugural round of the Transit Within Reach (TWR) program, three projects were funded and completed over two fiscal years – FY 2022 and FY 2023. The program funds design and preliminary engineering projects to help improve bike and walk connections to existing high-capacity transit stations or stations that will be open to riders by 2030.

Activities in FY 2023 focused on project completion, which happened in the fall and winter. In the spring of FY 2023, staff assessed the effectiveness of the program and launched the solicitation for the next round of projects, which will also straddle two fiscal years – FY 2024 and FY 2025.

3. High-Capacity Transit Map

No. Activity.

4. Other Tasks to be Defined

FY2023 Highlights / End-f-Year Recap

- Staff supported administering the Transit Within Reach Program funded through Regional Transit Technical Assistance Program.
- Staff consulted with the Regional Public Transportation Committee to help refine criteria for defining Bus Rapid Transit.

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM

Program Management

Staff updated the enplanement spreadsheet maintained for the CASP program with the latest reports provided by MWAA and MDOT/MAA.

Staff continued to recruit a new planner for the CASP program, conducting interviews of three candidates.

Air Passenger Survey (APS)
COG/TPB staff made updates to the sample draw process for the 2023 APS to distribute the sampled flights more evenly across field staff shifts.

COG/TPB staff reviewed the raw data from the 2023 APS pretest responses and conducted a review of the data file and variables for data quality and consistency.

Air Cargo Element Update
No activity.

Ground Access Travel Time Study
COG/TPB staff continued working on the Ground Access Travel Time (GATT) study and prepared summaries of tabulations and figures.

FY2023 Highlights / End-of-Year Recap

- **Aviation Technical Subcommittee meetings.** Staff work with the Chair of the Subcommittee to develop an agenda, recruit speakers, and summarize meetings.

- **FAA Grant Coordination.** Staff met with the FAA Grant Officer to conduct a CASP program management review, including the status of open grants and deliverables. Staff prepared the AIP grant application. Staff finalized the Airport Capital Improvement Plan (ACIP) for FY 2023-2027 and submitted it to the Federal Aviation Administration (FAA)

- **Regional Air Passenger Survey.** TPB staff developed recommendations for methodological changes in the 2023 APS based on the APS Response Rate and Quality Study. TPB developed the sampling approach and sample draw procedures which were documented in a technical memo. In February 2023, the kick-off meeting with the contractor for the 2023 APS was held and TPB staff worked closely with the contractor staff to develop the web-based survey instrument, printed materials, pretest operations plan, and incentive plan. TPB staff also coordinated with airport staff at the Metropolitan Washington Airports Authority (MWAA) and Maryland Aviation Administration (MAA) on pretest operation preparations. In April 2023, the pretest was conducted at Dulles Airport over four days on April 18, 19, 28, and 30 and TPB staff conducted site visits and observed field staff conducting interviews with air passengers. Based on the APS pretest findings, a pretest recommendations memo was developed and TPB staff began to make updates to the survey methodology and design in preparation for the full-scale survey in October 2023 at all three regional airports (BWI, DCA, IAD).

- *Ground Access Forecast Update (GAFU).* TPB staff completed the Ground Access Forecast Update (GAFU) update for the year 2022. TPB staff compared the data output from existing programs and streamlined GAFU programs to confirm the validation of the new programs. TPB staff developed the GAFU technical memo which was shared with the Travel Forecasting and Emissions Analysis (TFEA) staff.

- *Ground Access Travel Time (GATT).* TPB staff held a GATT progress meeting and started developing the road network of the GATT related routes. TPB staff also conducted a demo analysis of five routes to each of the three airports and prepared summaries of tabulations and figures.
- **Historical Enplanement Data.** TPB staff updated historical enplanement spreadsheets.
- **New Transportation Planner.** COG/TPB staff conducted a recruitment effort for a new transportation planner. The staff has completed interviewing candidates and is in the process of making a recommendation for a candidate.

PROGRESS ON PLAN PRODUCTS

Task 1: Long-Range Transportation Planning

- Initiate the next long-range plan update
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- The Equity Emphasis Areas were updated and the Environmental Justice analysis on Visualize 2045 was completed.

Task 2: Transportation Improvement Program

The iTIP Database (Project InfoTrak) was successfully used to meet the needs of staff and members. In addition, the database continues to be modified to assist with analysis and the new plan, Visualize 2050

Task 3: Planning Elements

- All federally required Performance-Based Planning and Programming targets and associated analysis for the year were developed and approved by the TPB.
- The 2022 Congestion Management Process Technical Report was completed in late FY 2022 and was accepted as final by the TPB Technical Committee in July 2022.
- The Metropolitan Washington Regional Intelligent Transportation Systems Architecture (MWRITSA) was maintained.
- Information on potential updates to the National Capital Trail Network was gathered from TPB jurisdictions, toward an upcoming periodic update to the NCTN.
- An updated Bus Transit Equity analysis of bus transit service and equity in the region and a white paper on transit funding across the nation were completed.
- The 2021 State of Public Transportation Report was published.
- A Best Practices in Pedestrian Enforcement Workshop as well as a Shared Micromobility Workshop were organized and conducted.
- A draft updated on the National Capital Region Freight Plan was developed, toward finalization in early FY 2024.

Task 4. Public Participation

- Public comment solicited, documented, and shared monthly.
- Materials and activities for public participation related to Visualize 2045 were shared from the previous year's activities.

- Staff continues to compile and report public comments received on the Initial Visualize 2050 Feedback Form and through email, phone, and by mail at the TPB Technical Committee meetings and TPB Board meetings.
- CAC and AFA Committee reports were prepared for each meeting.
- An Evaluation of Public Participation activities was conducted.
- Information was disseminated through the website, social media, and printed documents.
- Communication support for all Tasks was provided.

Task 5. Travel Forecasting

1. Staffing the TPB Travel Forecasting Subcommittee (TFS). In FY 23, the TFS met six times, on the following dates: 7/22/22, 9/23/22, 11/18/22, 1/27/23, 3/24/23, and 5/19/23.
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).
   c. Began development of a new base transit network, based on transit network service in December 2022.
   d. Updated the 2018 highway network used for the Gen3 Model work so that road segments in DC, particularly those intersecting screenlines 2 and 4, would have more accurate link capacities, reflecting the fact that many arterial roads in DC have on-street parking that reduces the effective link capacity.
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. The new software will be part of the Gen2/Ver. 2.4.6 Travel Model and replaces the outdated AEMS software.
      iii. Staff developed a transit walkshed generation process in Python based on GeoPandas. The new software will be part of the Gen2/Ver. 2.4.6 Travel Model and replace the earlier ArcGIS process.
      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. A model transmittal package is being prepared and should be ready by mid-July.

    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 35 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.

    d. Staff attended the TRB Innovations in Travel Analysis and Planning (ITAP) Conference from June 4 to June 6. Staff also held a debriefing session on the conference on June 16.

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.

c. Staff attended TRB's Innovations in Travel Analysis and Planning (ITAP) Conference from June 4 to June 6, where air quality, climate change, equity, and advances in travel demand modeling topics were featured in several workshops

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 in March 2023.

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.

f. In May, TPB and DEP staff drafted joint comment letters from TPB, CEEPC, and MWAQC, for the EPA in support of two Notices of Proposed Rulemaking (NPRMs): 1) Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3, and 2) Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles. The comment letters should be approved by the TPB in June and will then be submitted to the docket.

g. Staff continued to participate in climate change mitigation activities that could help the region reduce GHG emissions and reach the region's GHG reduction targets for the on-road transportation sector. Guidance documents for two new federal programs, the Carbon Reduction Program (CRP), established by the Bipartisan Infrastructure Law (BIL), and the Carbon Pollution Reduction Grants (CPRG) Program,

established by the Inflation Reduction Act, were released during FY 2023. Staff became familiar with different elements of these implementation programs and with how they relate to the TPB activities. Specifically, the CRP provides funds for projects designed to reduce on-road transportation emissions and requires coordination between MPOs and state DOTs. TPB staff coordinated activities related to this program with state DOTs and provided briefings to relevant committees. The Climate Pollution Reduction Grants (CPRG) program will provide grants to states and local governments to develop and implement plans for reducing greenhouse gas emissions and other harmful air pollution. The CPRG is expected to establish a partnership between COG and the District of Columbia, with a priority climate action plan (PCAP) due in FY 2024.

6. Air-quality-related data requests: This fiscal year, staff have responded to 13 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
  - Interviews with FHWA and state DOTs about NHTS NextGen completed
  - Presentation with recommendations for future survey delivered to Technical Committee.
- Technical support
  - Ongoing

7.1 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.
  - Draft regional Round 10.0 Cooperative Forecasts presented to the COG Board
- Analysis of Activity Center and High-Capacity Transit Station area historic trends and forecasts

- o Under development
- Presentations, visualizations, and information reports
  - o Ongoing
- Technical support
  - o Ongoing
- Annual Baseline Employment Guidance
  - o Complete.

Task 9. Mobility and Enhancement Programs

- The FTA Section 5310 solicitation is underway.
- TAP Coordination and project selection for DC, MD occurred.
- TLC Technical Assistance including final reports, was provided by consultant teams to localities
- Staff updated the website.
- Regional Peer Exchange Network Activities were conducted in April 2023.
- Regional Roadway Safety Program Assistance, including final reports, were provided by consultant teams.

Task 10. TPB Support and Management
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- Materials for the meetings of the TPB, Steering Committee, Technical Committee, and State Technical Working Group were prepared and posted, and printed when requested.
- Responses to information requests from elected officials, federal agencies, and media were conducted.
- Participation in external meetings related to the TPB work program occurred.
- The FY 2024 UPWP was prepared and approved by USDOT in June 2023.

	DC, MD and VA FTA, FHWA and LOCAL BUDGET TOTAL	FUNDS EXPENDED	BILLED THIS MONTH	% FUNDS EXPENDED
1. Long-Range Transportation Planning				
Long - Range Transportation Planning	1,032,781.45	826,661.66	116,053.48	80%
Subtotal	**1,032,781.45**	**826,661.66**	**116,053.48**	**80%**
2. Transportation Improvement Program				
Transportation Improvement Program	228,463.67	197,035.19	18,123.45	86%
TIP Database Support	200,000.00	208,199.52	52,049.88	104%
Subtotal	**428,463.67**	**405,234.71**	**70,173.33**	**95%**
3. Planning Elements				
Congestion Management Process	379,830.51	319,374.74	53,547.47	84%
Systems Performance, Ops & Tech Planning	348,494.22	320,698.16	10,267.46	92%
Transportation Emergency Preparedness Planning	142,103.03	126,853.25	16,420.76	89%
Transportation Safety Planning	328,165.29	134,937.35	14,345.63	41%
Bicycle & Pedestrian Planning	183,504.17	136,025.52	18,604.27	74%
Regional Public Transportation Planning	295,752.48	284,849.3	61,487.78	96%
Freight Planning	347,269.30	260,999.04	40,086.58	75%
Metropolitan Area Transportation Operation Coord Program Planning	168,057.12	155,578.53	3,891.76	93%
Performance-Based Planning & Programming	233,762.32	177,448.84	38,449.22	76%
Resilience Planning	212,185.17	158,064.79	63,580.95	74%
Subtotal	**2,639,123.61**	**2,074,829.52**	**320,681.88**	**79%**
4. Public Participation				
Public Participation	913,276.45	640,550.43	71,291.11	70%
Subtotal	**913,276.45**	**640,550.43**	**71,291.11**	**70%**
5. Travel Forecasting				
Network Development 4t	1,047,672.55	907,480.82	115,041.01	87%
Network Development 4t	1,634,968.86	1,426,158.04	195,105.34	87%
Subtotal	**2,682,641.41**	**2,333,638.86**	**310,146.35**	**87%**
6. Mobile Emissions Planning				
Air Quality Conformity	965,194.31	857,461.37	77,170.19	89%
Air Quality Conformity	1,300,371.68	1,041,474.2	96,095.87	80%
Subtotal	**2,265,565.99**	**1,898,935.57**	**173,266.06**	**84%**
7. Travel Monitoring and Data Programs				
Research and Analysis	1,418,540.44	879,784.99	83,898.95	62%
Research and Analysis	781,035.17	572,315.54	47,912.83	73%
Subtotal	**2,199,575.61**	**1,452,100.53**	**131,811.78**	**66%**
8. Planning Scenarios and Socioeconomic Forecasting				
Socioeconomic Forecasting	1,115,429.51	974,158.1	101,599.49	87%
Subtotal	**1,115,429.51**	**974,158.1**	**101,599.49**	**87%**
9. Mobility and Enhancement Programs				
Transportation and Land Use Connections Program	578,940.58	403,982.91	54,979.96	70%
Enhanced Mobility Grant Program	92,739.74	51,542.18	9,604.21	56%
Transportation Alternatives Set-Aside Programs	35,916.83	21,496.55	2,488.41	60%
Other Tasks to be defined 9.5	374,899.11	356,278.15	130,407.04	95%
Subtotal	**1,082,496.26**	**833,299.79**	**197,479.62**	**77%**
10. TPB Support and Management				
TPB Support and Management	989,547.37	703,426.95	198,264.95	71%
Subtotal	**989,547.37**	**703,426.95**	**198,264.95**	**71%**
Core Program	**15,348,901.33**	**12,142,836.12**	**1,690,768.05**	**79%**
A. District of Columbia Technical Assistance				
Program Development & Misc.	279,633.49	69,989.54	20,804.86	25%
B. Maryland Technical Assistance				
MD Technical Assistant	442,970.52	304,815.74	94,489.5	69%
C. Virginia Technical Assistance				
Program Development & Misc.	334,844.64	224,860.38	77,269.06	67%
D. Public Transit Technical Assistance				
Program Development & Misc.	192,288.25	134,662.27	335.78	70%
Technical Assistance	**1,249,736.90**	**734,327.93**	**192,899.2**	**59%**
TPB Grand Total	**16,598,638.23**	**12,877,164.05**	**1,883,667.25**	**78%**

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

	TOTAL AUTHORIZED BUDGET	TOTAL EXPEDITURES	FTA/STA/LOCAL AUTORIZED BUDGET	FTA EXPENDITURES	PL FUNDS/LOCAL AUTORIZED BUDGET	FHWA EXPENDITURES
A. DC Technical Assistant						
Program Development, Data Requests, & Misc	14,999.99	9,993.46	1,325.02	882.77	13,674.97	9,110.69
Regional Roadway Safety Program	30,000.00	30,000.00	2,650.04	2,650.04	27,349.96	27,349.96
Transportation/Land Use Connections Program	30,000.00	29,996.08	2,650.04	2,649.70	27,349.96	27,346.38
TBD	204,633.50	0.00	18,076.26	0.00	186,557.24	0.00
Subtotal	**279,633.49**	**69,989.54**	**24,701.37**	**6,182.51**	**254,932.12**	**63,807.03**
B. MD Technical Assistant						
Feasibility/Speacial Studies	24,999.99	0.00	2,208.37	0.00	22,791.62	0.00
Program Development & Misc	14,999.99	9,815.74	1,325.02	867.07	13,674.97	8,948.67
Planning Studies	35,000.00	35,000.00	3,091.72	3,091.72	31,908.28	31,908.28
TBD	107,970.54	0.00	9,537.55	0.00	98,432.99	0.00
Transportation Performance Measures	260,000.00	260,000.00	22,967.04	22,967.04	237,032.96	237,032.96
Subtotal	**442,970.52**	**304,815.74**	**39,129.71**	**26,925.83**	**403,840.81**	**277,889.91**
C. VA Technical Assistant						
Program Development & Misc	14,999.99	10,136.17	1,325.02	895.38	13,674.97	9,240.79
MARC - VRE Runthrough - VA	35,000.00	35,000.00	3,091.72	3,091.72	31,908.28	31,908.28
TBD	19,844.21	0.00	1,752.93	0.00	18,091.28	0.00
Transportation/Land Use Connection Program	80,000.00	80,000.00	7,066.78	7,066.78	72,933.22	72,933.22
Travel Demand Modeling	84,999.95	0.00	7,508.45	0.00	77,491.50	0.00
Travel Monitoring	100,000.49	99,724.21	8,833.52	8,809.12	91,166.97	90,915.09
Subtotal	**334,844.64**	**224,860.38**	**29,578.43**	**19,862.99**	**305,266.21**	**204,997.39**
D. WMATA						
Program Development & Misc	14,999.99	12,662.27	14,999.99	12,662.27	0.00	0.00
TBD	52,288.26	0.00	52,288.26	0.00	0.00	0.00
Transit Within Reach Soli	125,000.00	122,000.00	125,000.00	122,000.00	0.00	0.00
Subtotal	**192,288.25**	**134,662.27**	**192,288.25**	**134,662.27**	**0.00**	**0.00**
Grand Total	**1,249,736.90**	**734,327.93**	**285,697.75**	**187,633.61**	**964,039.15**	**546,694.32**