

FY 2022



National Capital Region
Transportation Planning Board

Work Program Progress Report

December 2021

FY 2022

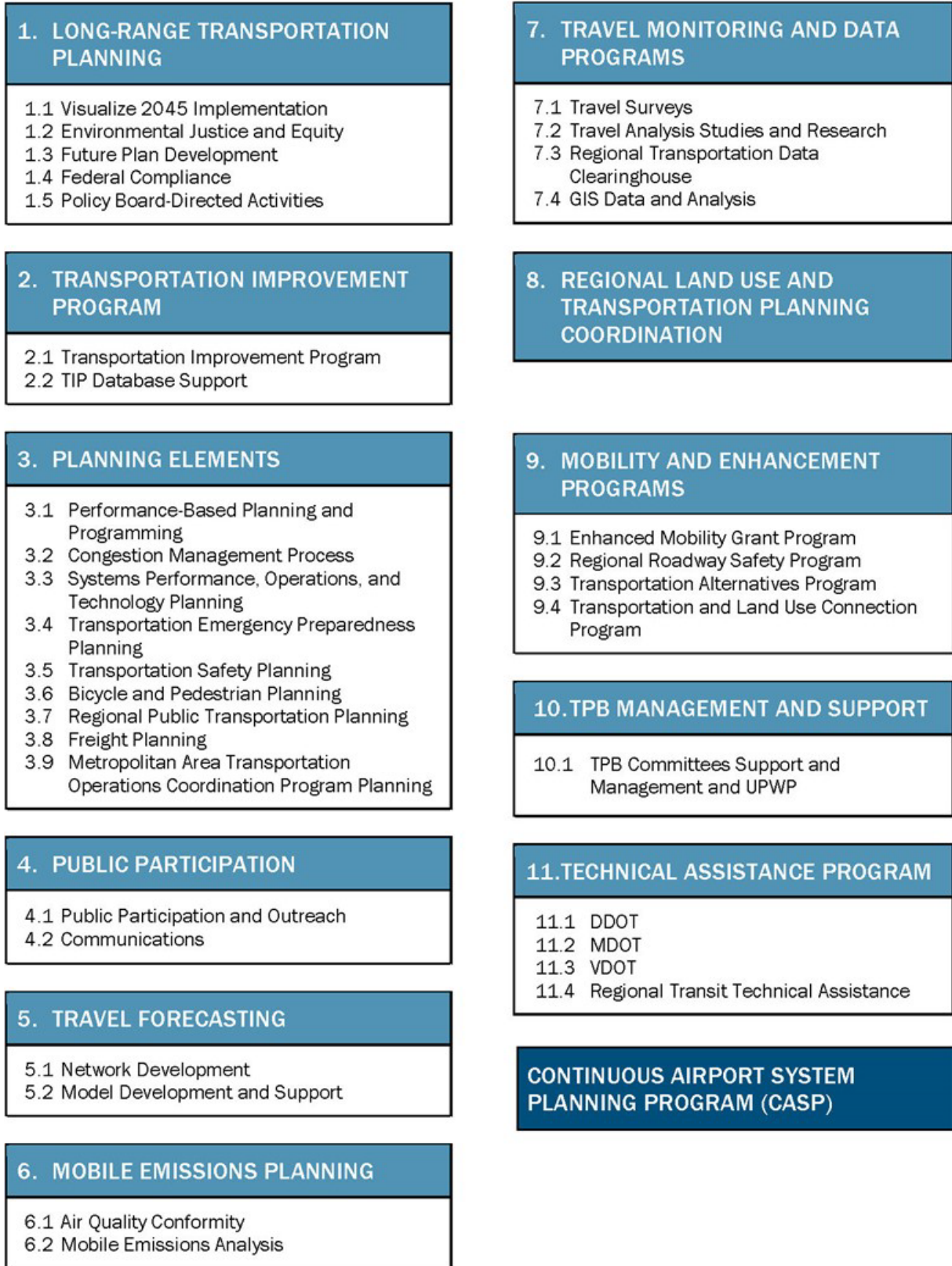
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The TPB approved its FY 2022 Unified Planning Work Program (UPWP) in March 2021. The TPB Work Program Progress Report provides a short summary of each activity for the month of December. In addition, this report concludes with status updates reflecting timelines for all ongoing program plans and projects. Please reference the 2022 UPWP for details concerning the approved budget, and work description for each task. The following graphic identifies all the activities in the UPWP.



Task 1	BUDGET	Billed this month	% Funds Expended	UPWP Page
LONG RANGE TRANSPORTATION PLANNING	\$1,095,434	\$91,953	45%	35

1. LONG-RANGE TRANSPORTATION PLANNING

1.1 – Visualize 2045 Implementation

Staff that manages the long-range transportation plan activities worked with the public participation team to develop a draft report on the socially distant public engagement activity ‘Aspiration to Implementation’ that ended at the end of August 2021. This activity both implements the most recent plan and supports development of the plan update. Staff also continued working with the public involvement and GIS team to produce a Story Map about the Voices of the Region outreach and what TPB learned from this outreach.

Staff coordinated the public participation team on an approach to leverage the animated videos that were produced in FY 2021 to support awareness and implementation of the Aspirational Initiatives. Staff began activities to update the infographics and animated video data for consistency with the data in the updated plan. Staff began activities to create an updated Aspirational Initiatives brochure.

Task 1.2 – Environmental Justice and Equity

Staff continues tracking the release of census data to update its Equity Emphasis Areas used to support the EJ analysis of the plan.

Staff conducted an interdepartmental meeting to discuss the outline and approach to produce an equity-focused paper or product to document equity considerations that can support regional transportation planning. Options are being considered that would produce a product that would support planning for a more equitable transportation system in the region.

Staff continued to participate in COG-led equity training activities.

Task 1.3 – Future Plan Development

In December 2021, the TPB staff conducted numerous small meetings and two working group LRTP coordination meetings, during which planning, and coordination take place for a range of LRTP activities and materials. Discussions include technical and financial inputs to Visualize 2045, and preparation for the comment period and its related materials, to the draft final LRTP content, communications, mapping, and public participation.

In December, staff continued to develop the LRTP. Activities included continuing to refine the Introduction and Chapters 1-8, producing charts, graphs, and other graphics for integration by the consultant design team. The staff held a series of meetings with the design firm to continue the layout the plan. Drafts of the Introduction and Chapters 1-7 and half of 8 were completed (the last half of 8 is pending performance data completion). Staff reviewed and revised numerous chapters working with SMEs and the consultants.

Staff initiated the development of a stand-alone Executive Summary for the plan, producing a page-by-page storyboard to manage spacing of content in the summary.

Staff completed numerous appendices to Visualize 2045 and made progress on the remaining appendices. Staff completed a second draft of the financial plan appendix for the Visualize 2045 document.

Staff updated the Visaulize2045.org website as needed to maintain a current site.

Staff coordinated to plan public comment and outreach activities for the LRTP for the spring of 2022.

Staff received data from the TPB Travel Model needed to produce a series of performance measures and began producing charts for the measures that convey the forecast the performance of the region's transportation system in 2045.

1.4 – Federal Compliance

There was no activity this month.

1.5 – Policy Board-Directed Activities

Staff completed the activities associated with TPB Resolution R10-2019 which directed staff to conduct activities related to the implementation of three of the aspirational initiatives. There are no board-directed activities under this task at this time.

The TPB has directed that “...the TPB itself and its staff commit that our work together will be anti-racist and will advance equity all its work activities...” In response to the TPB July 2020 resolution, TPB staff have conducted activities to discuss how to incorporate these concepts materially. The TPB staff conducted internal workshops to discuss examples of staff activities and have shared recent examples of best practices for considering equity and anti-racism in our work. TPB staff continue to weave equity, as a foundational principal, through TPB’s analyses, operations, procurement, programs, and priorities to ensure a more prosperous, accessible, livable, sustainable, and equitable future for all residents.

Task 2	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRANSPORTATION IMPROVEMENT PROGRAM	\$466,962	\$34,206	47%	37

2. TRANSPORTATION IMPROVEMENT PROGRAM

2.1 Transportation Improvement Program (TIP)

At December 3 meeting the TPB Steering Committee approved an amendment to the FY 2021-2024 TIP to include TIP Action 21-38, as requested by MDOT. The amendment for the MD 4 at Suitland Parkway Interchange Construction project shifted funding from FY 2021 to fiscal years 2022 through 2024 and added approximately \$3 million to the total cost of the project.

During the month of December, TPB staff began reviewing and editing language in the introductory sections for the Draft FY 2023-2026 TIP. Staff continued ongoing work with several member agencies to clean up data in the Project InfoTrak system.

2.2 TIP Database Support

Contractor Ecolnteractive, continued to provide their Software as a Solution platform, customized and branded as the TPB’s Project InfoTrak database application, as well as ongoing bug fixes and help desk support for staff and member agency users. Under an expanded contract for professional

services, EcoInteractive developed and refined further customizations of the software platform, including: prepending all TIP and Bike/Ped project IDs with a T or a BP to help differentiate them, renaming the values for lead agencies from acronyms to full names so they would be included in on-the-fly report headers properly, edits to the display of fund source names on the Amendment Summary Report, and initial review of data tables of responses to regional policy questions that were provided to TPB in Excel format by each local jurisdiction and DOT.

Task 3	BUDGET	Billed this month	% Funds Expended	UPWP Page
PLANNING ELEMENTS	\$2,768,270	\$210,615	38%	39

3. PLANNING ELEMENTS

3.1 Performance-Based Planning

Staff worked on PBPP content for the 2022 version of the Visualize 2045 long range transportation plan and the FY 2023-2026 TIP. Staff transmitted the annual Transit Safety targets adopted in November to the State DOTs, along with supporting documentation.

Staff attended the quarterly VDOT-OIPI-MPO Quarterly meeting.

TPB staff worked on updates to highway asset performance data for pavement and bridge condition.

3.2 Congestion Management Process

The December 16, 2021 meeting of the Vehicle Probe Data Users Group was organized and conducted, discussing a multimodal travel analysis for Prince William County: methods to analyze and predict Interstate travel time reliability; and a methodology for predicting MAP-21 Interstate travel time reliability measure targets in Virginia.

Staff continued Congestion Management Process (CMP) data compilation and analysis for upcoming Quarterly Reports.

Development of the biennial 2022 CMP Technical Report continued, with a goal to complete by the end of FY 2022.

3.3 Systems Performance, Operations, and Technology Planning

Staff briefed the TPB and the TPB Technical Committee on the draft Regional Connected and Automated Vehicle Principles, in preparation for TPB approval in January 2022.

3.4 Transportation Emergency Preparedness Planning

The December 8, 2021 virtual meeting of the Transportation Emergency Preparedness Committee (R-ESF 1) was organized and conducted, discussing current regional transportation emergency preparedness issues. Information was shared with the Committee regarding Metropolitan Area Transportation Operations Coalition (MATOC) and transportation agency response actions due to COVID-19.

3.5 Transportation Safety Planning

The regularly scheduled December 14, 2021, meeting of the Transportation Safety Subcommittee was organized and conducted. The agenda included a briefing on the impact of the pandemic on traffic safety, an update on BMC's latest safety efforts, a briefing on the Fall 2021 Street Smart campaign, an update on the Regional Roadway Safety Program, and a briefing on TPB staff recommendations for the 2018-2022 Regional Roadway Safety Targets.

Staff held a planning session on December 7, 2021, with the Transportation Safety Subcommittee Chair to identify topics and speakers for future Safety Subcommittee meetings.

Staff presented the draft Regional Highway Safety Targets to the TPB Technical Committee on December 3, 2021, and to the TPB on December 15, 2021.

3.6 Bicycle and Pedestrian Planning

Staff revised the draft Bicycle and Pedestrian Plan for the National Capital Region based on results of the buffer analysis.

Staff briefed the Maryland Pedestrian-Bicycle Emphasis Area Team (December 2), the Transportation Safety Subcommittee (December 9), and the BMC Safety Subcommittee (December 16) on the Fall 2021 Street Smart pedestrian and bicycle safety campaign.

3.7 Regional Public Transportation Planning

The Regional Public Transportation Subcommittee did not meet in December.

Staff worked on the Visualize 2045 long range transportation plan and completed a second draft of the appendix summarizing transit development plans across the region.

Staff attended the regular monthly NVTC MAC meeting and a WMATA Bus Priority work group meeting.

3.8 Freight Planning

Staff, in consultation with the Freight Subcommittee Chair, developed the agenda and secured speakers for the regularly scheduled January 6, 2022, meeting of the TPB Freight Subcommittee.

Staff held planning sessions on December 1 and December 17 with the TPB Freight Subcommittee Chair to identify topics and speakers for future Freight Subcommittee meetings.

Staff continued work to develop a scope for consultant assistance to update the Regional Freight Plan in FY 2022/2023.

3.9 Metropolitan Area Transportation Operations Coordination Program Planning

The Metropolitan Area Transportation Operations Coordination (MATOC) Program is an operational partnership of the region's major transportation agencies, funded outside the UPWP, but with certain planning support activities provided by TPB staff under this task.

The virtual meeting of the MATOC Severe Weather Coordination Working Group was organized and conducted on December 14, 2021, continuing this season's winter weather response coordination.

Task 4	BUDGET	Billed this month	% Funds Expended	UPWP Page
PUBLIC PARTICIPATION	\$994,711	\$56,136	33%	45

4. PUBLIC PARTICIPATION

4.1 Public Participation and Outreach

The Community Advisory Committee (CAC) met on Wednesday, December 9 for an online-only meeting. At the meeting the committee learned about the TPB Climate Change Mitigation Study of 2021 and the Regional Roadway Safety Program. The CAC also spent time discussing its accomplishments and activities in 2021. This information was used in the development of the committee’s annual report.

Staff completed analysis of Phase II outreach for Visualize 2045, which provided open opportunities for public input. Phase I was invitation-only, focusing on public opinion research through quantitative research (opinion survey) and qualitative research (focus groups). The main activity for Phase II was the distribution of more than 40 posters and signs around the region that will display QR codes, which solicited input on the TPB’s Aspirational Initiatives.

Staff began planning for the next session of the TPB’s Community Leadership Institute (CLI), a three-day training program that helps local activists understand the connections between regional planning and local action. The next session, which will be held in the spring of 2022, will be the 18th time that TPB staff have conducted the CLI since the program’s inception in 2006.

Staff began planning for public engagement activities related to the finalization of Visualize 2045. These activities will include a series of open houses and a public comment period.

Staff continued work on a GIS storymap to summarize all the outreach activities conducted for Visualize 2045 – the survey, focus groups, and open outreach through QR code posters.

An AFA meeting was not held in December. Staff began planning for 2022 and held a meeting to discuss potential topics and dates with Chair Aguirre on December 21.

4.2 Communications

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

- **A recap of the December TPB meeting**
December 21, 2021
- **TPB elects City of Manassas Vice Mayor Pamela Sebesky as 2022 Chair**
December 15, 2021
- **TPB awards technical assistance for roadway safety projects, calls for reciprocal agreement on automated traffic citations**
December 15, 2021
- **2021 Video: Unlocking the Region's Potential**
December 14, 2021
- **Take a deeper dive into newly adopted planning concepts**
December 6, 2021

Staff worked on an audit to comprehensively update pages on the COG website related to transportation. Staff also conducted monthly update activities for the website.

A new transportation communications manager was hired in December.

Task 5	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL FORECASTING	\$3,298,337	\$215, 779	35%	47

5.1 TRAVEL FORECASTING

5.1 Network Development

In support of developing the TPB’s next-generation, activity-based model – the Gen3 Model – staff continued development of a 2045 transit network. The year-2045 transit routes are based on the 2020 Amendment to Visualize 2045, which was also used for the 2018 base network, which was provided to the consultant earlier. This work involves coding a transit network with four time-of-day periods (AM peak, midday, PM peak, and nighttime), which contrasts with the current practice of coding transit networks that reflect only two time-of-day periods (peak and off-peak). Both the 2045 and 2018 networks will be used for Gen3 Model, Phase 1, sensitivity testing that is now expected to begin in January.

Staff completed coding and began quality assurance of the 2017 and 2020 highway and transit network files for the purpose of providing on-road mobile emissions inventories for State Implementation Plan (SIP) work associated with the 2015 Ozone National Ambient Air Quality Standards (NAAQS).

In support of the ongoing air quality conformity (AQC) analysis, staff instituted a series of enhancements to COG’s network editing tool (COGTools) to facilitate related network development activities. Staff developed a memorandum, dated 12/15/21, that documents all the recent enhancements to COGTools.

Staff fixed a COGTools error that was resulting, in some cases, in double station nodes in the 2045 transit networks. Staff also fixed an issue that resulted in staff not being able to edit any 2018 transit routes in the AQC network database.

Following an internal discussion in December, staff developed protocols to version the COGTools software. Staff created a log file to track the changes to COGTools starting on 12/15/2021.

Staff has been working on a major update of the COGTools User’s Manual. Staff completed an internal review and requested additional information on December 29, 2021.

Staff is in the process of preparing tables and figures for the Gen2/Ver. 2.4 Model Highway and Transit Network Report. Staff is also documenting the development of unified network database as part of this report.

5.2 Model Development and Support

The Travel Forecasting Subcommittee (TFS) meets in odd-numbered months. In December, staff worked on preparing meeting highlights from the November 19 TFS meeting. Following the yearly rotation of TFS chairs, in January, Lisa Shemer, MDOT SHA, will begin her term as chair.

Production-use, travel demand forecasting model: Generation 2/Ver. 2.3 and Ver. 2.4

Staff compiled observed daily vehicle-miles of travel (VMT) data for the year 2020 based on Highway Performance Monitoring System (HPMS) reports from state DOT websites and began developing a technical memorandum (expected to be completed in early January) that will document the process used to develop the jurisdictional weekday VMT summaries by federal functional class (FFC).

Using the Gen2/Ver. 2.4 Model and model inputs for the 2022 Update of Visualize 2045, staff conducted a scenario analysis that explored the impacts of two hypothetical scenarios: 1) bus fares

are zero; and 2) transit fares are zero. Transit elasticities were computed for both scenarios and were compared to the reference data. Staff is in the processing of documenting this analysis for internal reference.

Staff created a MWCOG GitHub repository to version control utility scripts/programs associated with the production-use Gen2 models.

Staff updated, tested, and documented the Select Link Analysis (SLA) program in sync with the Ver. 2.4 Model. Staff uploaded different versions of SLA programs to the MWCOG GitHub repository for Gen2 Model utilities.

Staff developed a Python script that processes the Cooperative Forecasts of land use data and prepares the land use input files to travel demand models. This Python script is expected to replace the existing, Cube-based land use data processing program for the next conformity cycle. Staff uploaded the original Python script, documented in a 9/15/21 memo, to the MWCOG GitHub repository in December and planned to upload a new version of the script that includes Quality Assurance/Quality Conformity checks and code optimization to the repository in January. Staff may continue to improve this script in the future.

Staff continued to explore visualizer tools that can be used to visualize region-level Gen2 Model summaries.

Developmental, travel demand forecasting model: Generation 2/Ver. 2.3 and Ver. 2.4

Staff continued to explore the feasibility of replacing the outdated AEMS software with TRANSIMS ModeChoice for the mode choice modeling of the TPB's Gen2 Travel Model. After testing the latest ModeChoice Version 7.5.7 software and sharing the findings with AECOM (the developer of TRANSIMS ModeChoice), staff continued to work with AECOM staff to troubleshoot issues with running the software on different platforms.

Developmental, travel demand forecasting model: Generation 2/Ver. 2.4 PT

No activity.

Developmental, travel demand forecasting model: Generation 3

Regarding the consultant-assisted project to develop the next-generation travel demand forecasting model, known as the Gen3 Model:

- Staff held two check-in meetings with RSG and BMG, the consultants on the Gen3 Model development project, on December 9 and 23.
- Staff finished reviewing the draft RSG report that documents the results from the Phase 1 model estimation and shared comments/questions with RSG on 12/7/21.
- Staff reviewed a draft memo developed by RSG, dated 12/15/21, on "Gen3 Phase 2 Scope of Work and Potential Tasks". Staff also met on 12/21/21 to discuss the Phase 2 scoping internally.
- Staff created ArcGIS maps that visualize the screen line volume validation results from the Gen2/Ver. 2.4 and the Gen3 Travel Models. Staff shared the final maps and observations with RSG and BMG on December 16, 2021. During this process, staff found errors in the RSG screenline volume validation summaries and reported them to RSG.
- Staff continued to investigate the random forest model that RSG used to impute the 2017-2018 COG/TPB Regional Travel Survey (RTS) part-time work status for the Gen3 Model development. RSG fixed an issue noted by COG staff in the Jupyter Notebook script file and updated the data development report accordingly. Staff tested the updated script and confirmed that it generated reasonable results. The random forest model used for RTS data imputation is now considered finalized.

Software support

Working with COG’s Information Technology (IT) Department, 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 (MEMW) 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 also continued to monitor the storage space on various modeling servers to ensure that older files were being backed up and removed and that sufficient storage space was available for upcoming activities, including the 2022 Update to Visualize 2045 air quality conformity analysis.

Other activities

Staff serviced four data requests: Three requests were from consultants, e.g., for a U.S. Department of Energy (US DOE) sponsored research project; for a study of WMATA’s Navy Yard Metrorail Station; and for an MWCOG TLC Program - Falls Church East End Transportation Study. One request was for an academic. The requested data included the Gen2/Version 2.4 Travel Model. loaded-links highway network files and vehicular TAZ-level origin-destination (O-D) trip interchange data for 2019 from the Gen2/Ver. 2.4 Travel Model, a shapefile representing zonal boundaries for the 3,722-TAZ area system, and vehicle trips and person trips by mode, for 2019 and 2045 from the Gen2/Ver. 2.3.78 Travel Model.

Staff attended the third of three COG racial equity training sessions.

Staff reached out to IT staff on 12/21/21, found out the cause to the slow-down issue on one of COG’s network drives (I Drive) after its migration to the cloud, and proposed a temporary solution.

Staff met with IT staff on 12/27/21 and discussed the computing needs of the Travel Forecasting and Emissions Analysis (TFEA) team regarding moving travel modeling work from on-premises modeling servers to servers in the cloud.

Staff requested a new Cube license and updated the Cube licenses on four modeling servers.

Staff created an automated routine in Python that visualizes the VMT validation by jurisdiction in a map.

Staff attended ActivitySim Consortium meetings regularly on Tuesdays and Thursdays.

Task 6	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILE EMISSIONS PLANNING	\$2,039,172	\$199,053	47%	51

6. MOBILE EMISSIONS PLANNING

6.1 Air Quality Conformity

Staff continued to regularly attend coordination meetings related to scheduling tasks for the 2022 quadrennial update of the region’s Long-Range Transportation Plan, Visualize 2045, including the air quality conformity analysis, system performance, and environmental justice analysis.

Upon finalizing the networks development process, travel demand modeling, and emissions analysis, staff continued to conduct review and reasonableness checks of the results against the findings from previous analyses. Staff also began to conduct performance analysis of the plan using the measures identified by the Plan Development and Coordination Team.

Staff continued to participate in planning activities for the next 2024 “Interim” Long-Range Transportation Plan update, including discussion of work tasks and schedule.

6.2 Mobile Emissions Analysis

Staff continued to conduct activities related to the TPB Climate Change Mitigation Study of 2021 (CCMS). TPB staff continued to hold bimonthly meetings with the project consultant (ICF) regarding Phase II of the study, which has assessed what it would take to reduce the on-road transportation-sector greenhouse gas emissions by 50% below 2005 levels by 2030 and by 80% below 2005 levels by 2050. Upon finalizing the technical analysis of the ten agreed-upon bottom-up scenarios and three top-down scenarios, in coordination with TPB staff, the project consultant completed a draft final report and provided a draft technical appendix for review. The draft final report was shared with the TPB. The project consultant provided briefings to the TPB Technical Committee (item #4), the Community Advisory Committee (item #3), and the TPB (item #3 at the TPB Climate Change Mitigation Study Work Session and item #11 at the TPB meeting).

DEP and TPB staff continued to coordinate with state air agencies on plans related to development of the Attainment State Implementation Plan (SIP) and Maintenance Plan / Redesignation Request to address requirements of the 2015 ozone National Ambient Air Quality Standards (NAAQS). DEP staff continued to facilitate discussions with the Metropolitan Washington Air Quality Committee – Technical Advisory Committee (MWAQC-TAC). MWAQC-TAC (items #2 and #3) and MWAQC (item #5) were both briefed on the next steps related to the 2015 ozone NAAQS SIP planning. MWAQC-TAC was also briefed on impacts of air pollution transport from upwind areas to metropolitan Washington, and a potential comment letter was discussed (item #4). Finally, DEP staff briefed MWAQC-TAC on climate and electric vehicle planning in the region (item #5), while MWAQC was briefed on transportation electrification in metropolitan Washington (item #6).

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 response to a request by the Northern Virginia Transportation Authority (NVTA), TPB staff provided mobile emissions modeling data that could potentially support development of NVTA’s TransAction plan update.

TPB staff also continued to conduct MOVES model tests to further refine greenhouse gas emissions modeling estimates for future studies. Staff also continued to explore different ways to model criteria pollutant emissions to both maintain consistency with the recently released Version 2.4 Travel Demand Model and to introduce innovative new processes (e.g., machine learning).

Task 7	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL MONITORING AND DATA PROGRAMS	\$2,141,001	\$112,388	28%	53

7. TRAVEL MONITORING AND DATA PROGRAMS

7.1 Travel Surveys

Regional Travel Survey

Staff fielded RTS data requests from stakeholders.

Staff responded to an inquiry about commute patterns in Montgomery County, particularly on the American Legion Bridge.

Smartphone Panel Survey

Staff continued with post-survey data processing for the RTS Follow-On Smartphone Panel Survey (SPS).

Covid-19 Literature Review

Staff continued to conduct a literature review of transportation surveys measuring the impacts to travel behavior from COVID-19 that inform regional transportation planning.

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

7.2 Traffic Analysis Studies and Research

Transportation Impacts of the COVID-19 Pandemic

Staff continued to coordinate with other key organizational technical staff to prepare an examination of COVID related regional impacts from a multisectoral perspective, including the transportation sector to better understand and describe the impacts to the region's transportation system from a broad context. Staff updated presentation slides with the latest information.

COVID-19 Travel Monitoring Snapshots

Staff received and processed October and November data from continuous counting stations throughout the region. Staff analyzed these data for input into the COVID Travel Monitoring Snapshot that will be posted on the COG/TPB website.

RTS In-Depth Analysis Project

Staff prepared for its third presentation to the TPB Technical Committee on the project. The project used RTS data items to answer questions from regional stakeholders. Staff also prepared a description of the item for the meeting summary.

Transportation Data Dashboard

Staff continued explore options for a transportation data dashboard.

Equity and High-Capacity Transit Focus

Building on the work to support the COG Board at its annual retreat in July, staff continued to develop maps and visualizations of the region's Equity Emphasis Areas (EEAs) and High-Capacity Transit (HCT). These materials were instrumental in supporting COG Board and TPB resolutions that were considered and adopted in October to optimize HCT station areas to promote development of transit oriented communities and elevate the use of EEAs in the region to incorporate equity into the work of COG and TPB.

Other Activities

In support of the TPB Equity Whitepaper, reviewed and provided comments on draft outline and participated in internal staff briefing.

Participated in an internal discussion about potential programs, projects, and activities to support resiliency.

Participated in an internal brainstorming process to identify new project concepts and ideas for this fiscal year or the next fiscal year.

7.3 Regional Transportation Data Clearinghouse

Staff added the Draft Round 9.2 of the Cooperative Forecast geodatabase to the RTDC.

Staff aggregated all past rounds of the Cooperative Forecast tied to the 3722 TAZ system (8.0 to 9.1a) into a single Excel spreadsheet and added it to the RTDC so users can download a single file.

Staff received the 2020 HPMS data for the District, Maryland, and Virginia and began to process the data for input into the SAS programs that synthesize pavement data for the region. Staff reran the 2019 pavement programs to include 2019 IRI data for one NHS facility which was missing from the 2019 Hosted HPMS. The results of these programs will be used to update the jurisdictional charts and shared with the Systems Performance and Planning team for use in their PBPP work.

Staff worked with staff from VDOT and WVDOT to research some large year-to-year changes in jurisdiction-level daily vehicle miles traveled (VMT) reported by the state DOTs. Staff made final adjustments to the regional VMT table for 2020.

Staff responded to a data request from a consultant at AECOM regarding TPB's High Capacity Transit Station Area Walkshed map. Staff provided the link to the data in the RTDC.

Staff responded to a data request from WMATA about the regional transit ridership data in the RTDC. Staff coordinated with staff from the Travel Forecasting and Emissions Analysis team to provide a response.

Staff provided fellow team staff with a link to the current FY20 regional transit ridership data.

Staff participated in meetings and email exchanges with the Travel Forecasting and Emissions Analysis Program team and their contractor, RSG.

7.4 GIS Data, and Analysis

Staff completed draft ArcGIS Hub pages created for High Capacity Transit (HCT) station areas, Equity Emphasis Areas (EEA) as part of the ongoing work to highlight these two TPB products. Staff continued to coordinate with COG's Office of Communication to create a plan to ensure continuity with COG's promotion of utilizing HCT and EEA as key regional planning principles.

Staff completed additional edits and changed to the ArcGIS Hub pages created for High Capacity Transit (HCT) station areas, Equity Emphasis Areas (EEA) as part of the ongoing work to highlight these two TPB products. The site was linked in the *Connections* (December 2), *COG Bulletin* (December 14) and *TPB News* (December 21) electronic publications.

Staff completed the Visualize 2045 Environmental Consultation and Mitigation web mapping application created at the request of the Plan Development and Coordination team.

Staff met with fellow DTP staff to discuss transit projects in the Project InfoTrak (PIT) database.

Staff participated in a check-in meeting with Plan Development and Coordination staff on December 17 to review the timeline for creating spatial data and associated products based on the 'Voices of the Region' conducted as part of the Visualize 2045 outreach activities.

Staff continued to attend and participate in Visualize 2045 activities, hosted by the DTP Plan Development and Coordination Team.

Staff performed additional geospatial analysis on the bicycle and pedestrian projects in the Project InfoTrak (PIT) database. Staff provided an updated Excel spreadsheet of the analysis of the projects in the TPB Bicycle and Pedestrian Plan for the National Capital Region.

Staff created a data dashboard application for the TPB Bicycle and Pedestrian Plan for the National Capital Region, highlighting the types of projects and lead agency responsible for the projects. This draft application was shared with TPB’s bicycle and pedestrian planner for review and comment.

Staff assisted fellow DTP staff with GIS technical support and troubleshooting for working with tabular and spatial data in ArcGIS Desktop and provided several alternative workflows and other suggestions. Staff also worked with IT staff to identify potential hardware related issues affecting this issue.

Staff enabled basic Google Analytics reporting tools on the HCT-EEA ArcGIS Hub site.

Staff created ArcGIS Online organization account log in credentials for DEP staff responsible for reviewing and managing the NCR GDX Food Resources Layer in ArcGIS Online.

Staff continues to work with COG’s Information Technology (IT) staff to identify issues related to software and hardware upgrades for resources administered by the Planning Data and Research (PDR) team. Staff met with IT staff on December 2 and informally throughout the month.

Staff attended and presented at the November Bicycle and Pedestrian Subcommittee meeting held on November 16. Staff gave a status report on the project database and answered questions from committee members.

Staff participated in meetings to discuss the project to apportion 2020 Census blocks to transportation analysis zones (TAZs). Staff reviewed and provided feedback on alternative methodologies to complete the project.

Staff continued to attend and participate in Visualize 2045 activities, hosted by the DTP Plan Development and Coordination Team.

Staff attended the December meeting of the Maryland State Geographic Information Committee (MSGIC) on December 8.

Staff attended the MSGIC-sponsored training webinar “Making Sense of the American Community Survey” on December 2.

Staff attended the Q4 AMPO GIS & Data Visualization Working Group Webinar on December 2.

Staff attended the Cooperative Forecasting and Data Subcommittee meeting on December 14.

Task 8	BUDGET	Billed this month	% Funds Expended	UPWP Page
REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION	\$1,190,179	\$102,081	41%	57

8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION

8.1 Socioeconomic Forecasting

Proposed Draft Workplan for Round 10

DCPS staff presented a proposed draft Round 10 workplan to the Planning Directors Committee that calls for completing significant tasks during FY 2022 and significant work to complete draft Round 10 during FY 2023.

COVID-related impacts to the economy

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.

Housing Targets update

DCPS staff continued work with the Executive Office and Amazon staff to prepare for the launch of the Housing Affordability Planning Program (HAPP) grants in early 2022. 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. DTP staff shared solicitation material, timelines, and other resources to assist with the development of the program.

2020 Census Release and Analysis

DCPS staff continued work to develop a first approach at 2020 Census Blocks (and data) conversion/allocation into TPB TAZs. When completed, the data will be shared with members for use as Round 10 population and housing 2020 base. Staff completed the initial allocation of 2020 Census block statistics to COG/TPB TAZs, sharing those results with internal review group. At the group’s recommendation, DCPS staff began work on an alternative approach for the allocation with a goal of sharing a final file with the Subcommittee early in 2022.

Visualize 2045 Performance Analysis

In support of the performance analysis for the 2022 update to Visualize 2045, staff began developing estimates and forecasts of population and jobs within a half-mile of high-capacity transit in 2023 and 2045. Staff coordinated internally to obtain the latest high-capacity transit inputs and used them to perform a geospatial analysis to assign the latest station to TAZ. Staff also identified Activity Centers with high-capacity transit.

Staff updated a table with population estimates for the urbanized area of Fauquier County, this will be used to identify the level of matching funds.

Task 9	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILITY AND ENHANCEMENT PROGRAMS	\$988,671	\$18,932	14%	59

9. MOBILITY AND ENHANCEMENT PROGRAMS

9.1 Enhanced Mobility Grant Program

During the month of December staff began collecting information required to apply to FTA for approval of Enhanced Mobility round 5 projects.

9.2 Regional Roadway Safety Program

Staff compiled the scores from the Technical Selection Committee members of each FY 2021 Regional Roadway Safety Program (RRSP) project, selected the winning consulting firms, and began developing Task Orders for each one.

Staff presented the Selection Panel’s recommended projects for FY 2022

At the regularly scheduled TPB Technical Committee meeting on December 3, 2021, staff provided a briefing that described the Regional Roadway Safety Program Selection Panel's recommendations as to which FY 2022 applications will be recommended to TPB for funding.

At the regularly scheduled TPB meeting on December 15, 2021, staff briefed the board on the Regional Roadway Safety Program Selection Panel's recommendations and requested approval for the recommended projects for FY 2022, which was granted.

9.3 Transportation Alternatives Set-Aside Program

Staff received 24 applications for the FY 2023-24 round of Virginia TAP. Staff identified a selection panel and established a process for application review. Staff internally analyzed the applications for consistency with the TPB's regional priorities. The selection panel is scheduled to meet on January 24 and January 31. The TPB is scheduled to approve the projects in February.

9.4 Transportation/Land-Use Connections (TLC) Program

Work on all 11 TLC projects for FY 2022 was underway. See below:

- Discovery District Multi-Use Trail Transit Access Plan (College Park) - Continued documenting existing conditions in a CAD base map with aerial background. Continued to obtain and incorporate relevant planned/approved developments into base map.
- Congress Heights Pedestrian Access Study (District of Columbia) - The consultants continued work on the existing conditions report and submitted an outline of the report to DCOP to review.
- Assessment of Microtransit (District of Columbia) - The project team postponed check ins until 1/4/2022. Task two, assessment of existing conditions, was submitted to the DDOT/DFHV for review.
- Active Transportation Plan near the Huntington Metrorail Stations (Fairfax County) – Field work continued in December.
- East End Transportation Study (Falls Church) – The consultant made a request from city staff for relevant information and data for this project. City staff is hoping to have the data ready for the consultant by the end of December 2021.
- East Street Redesign (Frederick County) - Check-in meeting organized by the contractor on Dec 16th. The contractor updated on data needs and existing condition analysis status. The first stakeholder group meeting will be held in January.
- Greenbelt Road Corridor Plan (Greenbelt) – The consultant organized a technical kickoff meeting on December 9, and is continuing preparations for a Visioning meeting on February 10.
- Connecticut Avenue Corridor Planning (Kensington – Montgomery County) – Steering committee members and other stakeholders identified, contact list completed.
- Cool-Street Design Guidelines and Standards (Montgomery County) – Consultant scheduled update meeting for December 21. The December meeting consisted of the final report outline, the draft Cool Streets Toolkit (overall organization and preliminary elements) and the next steps.
- The Anacostia Gateway/PG Connector Trail Design Project – Field work continued in December.
- Innovation Park Shuttle Service Feasibility Study (Prince William County) - Progress conference calls were held with the consultant and county staff on December 2. Consultant submitted a draft Existing Conditions and Market Analysis on December 17 which summarizes existing conditions/planning context in the Innovation Park region and provides a market analysis showing current and future market conditions for public transit.

Staff opened the application period for the FY 2023 round of TLC on December 17. The deadline for abstracts was January 10.

An intern was hired to work on the TLC program.

Task 10	BUDGET	Billed this month	% Funds Expended	UPWP Page
TPB MANAGEMENT AND SUPPORT	\$963,379	\$51,332	32%	61

10. TPB MANAGEMENT AND SUPPORT

Transportation Planning Board Committee Support and Management

Staff support was provided for the following committees and subcommittees:

- State Technical Working Group (STWG)
- TPB Technical Committee
- TPB Steering Committee
- MWCOG Board Meeting
- Transportation Planning Board (TPB)
- MATOC Steering Committee
- TPB Community Advisory Committee (CAC)
- TPB Access for All (AFA)
- Regional Public Transportation Subcommittee (RPTS)
- Bicycle & Pedestrian Subcommittee
- COG Planning Directors
- TPB Freight Subcommittees
- CAOs Monthly

Support activities from the administrative staff included: meeting logistics with meeting rooms and amenities, duplication and distribution of meeting materials, email/phone call follow ups. Staff also worked on monitoring work program activities, providing administrative assistance to senior staff and monitoring and prepare financial reports. Administrative staff work on monthly financial administration and management activity includes review and finalization of monthly expense reports for all UPWP activities, development, and submission of monthly UPWP invoices and any follow up activity with the funding agencies.

The Staff Director provided overall program management oversight to all the Department’s activities. Work activities the Director was involved in during the month of December include:

- Discussions, review, and finalization of the agenda topics for the TPB’s Technical Committee, State Transportation Working Group (STWG) and Board meetings. This includes meeting with the Program Directors and project staffs to review the progress and briefing materials.
- Participation in the STWG, TPB Technical Committee, TPB Steering Committee, TPB’s Community Advisory Committee and the TPB Board meetings.
- Participation in the bi-weekly meetings of the State Safety Oversight/Metro Safety Commission (SSO/MSO) Policy Work Group meetings. This “tri-state” group is working to reconstitute the existing Metro Rail Safety Oversight Committee to comply with the requirement of the FAST Act.
- Metropolitan Washington Air Quality Committee

The Staff Director provided overall program management oversight to all the Department’s activities.

Other additional activities for the TPB Staff Director for the month of December FY 2022:

- Telephone / Web Ex / Microsoft Teams Communications:
- MetroNow Comments
- Briefing on TPB Leadership Opportunity
- CAO’s Monthly Meeting
- COG Audit Committee
- US-OST IJA (Virtual) Briefings
- Amazon/MWCOG HAPP Grant
- COG DEI Professional Development for Advancing Racial Equity
- Discussions @ Priorities; incoming TPB Chair (twice, in City of Manassas)
- COG Annual Meeting
- Connected DMV – Stakeholder Survey Call
- TPB Officers Nominating Committee Call
- TPB Climate Change Mitigation Study Team meeting
- OLDCC MIRR Regional Collaboration Forum IJA Presentation
- TPB MDOT Climate Change Discussion

UPWP

The UPWP activities include:

Staff prepares monthly UPWP progress reports for each of the state agencies administering planning funding and prepares all necessary federal grant applications submissions. Staff reviews all monthly UPWP invoices going to each of the state agencies administering planning funding.

- 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	\$1,576,979	\$9,642	4%	63
District of Columbia	\$274,756	\$1,434	4%	63
Maryland	\$483,305	\$848	4%	65
Virginia	\$436,679	\$7,032	7%	68
Regional Transit	\$382,238	\$326	1%	71

11. TECHNICAL ASSISTANCE

11.1 District of Columbia

Proposed Draft Workplan for Round 10

DCPS staff presented a proposed draft Round 10 workplan to the Planning Directors Committee that calls for completing significant tasks during FY 2022 and significant work to complete draft Round 10 during FY 2023.

COVID-related impacts to the economy

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.

Housing Targets update

DCPS staff continued work with the Executive Office and Amazon staff to prepare for the launch of the Housing Affordability Planning Program (HAPP) grants in early 2022. 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. DTP staff shared solicitation material, timelines, and other resources to assist with the development of the program.

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Visualize 2045 Performance Analysis

In support of the performance analysis for the 2022 update to Visualize 2045, staff began developing estimates and forecasts of population and jobs within a half-mile of high-capacity transit in 2023 and 2045. Staff coordinated internally to obtain the latest high-capacity transit inputs and used them to perform a geospatial analysis to assign the latest station to TAZ. Staff also identified Activity Centers with high-capacity transit.

Staff updated a table with population estimates for the urbanized area of Fauquier County, this will be used to identify the level of matching funds.

11.2. Maryland

Program Development, Data Requests, and Miscellaneous Services

Staff met with a traffic consultant to MD SHA to explore opportunities for DDOT, VDOT, and MD SHA to share common data for use in HPMS traffic data preparation.

Provided a status update and overview of the Technical Assistance Program during the State Technical Working Group meeting.

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

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 through the Maryland Technical Assistance Program. See TLC item above for further details about the TLC Program.

Climate Change Study

A climate change study is primarily being funded by the UPWP Core program with supplemental funding from the District of Columbia, Maryland, and Virginia Technical Assistance Accounts. See references in the progress report above, for further details about this study

11.3. Virginia

Program Development, Data Requests, and Miscellaneous Services

Provided a status update and overview of the Technical Assistance Program during the State Technical Working Group meeting.

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

Travel Monitoring and Survey

Non-Motorized/Active Transportation Counts

Staff completed the review of the count files and video links from the fall 2021 field data collection and contacted the contractor with comments.

I-66 & I-395 Mode Share Study

Staff followed-up with the on-call traffic monitoring consultant to determine the progress on the VDOT I-66/I-395 mode share study. The contractors provided the data for the VDOT I-66/I-395 mode share study and staff reviewed the data quality and provided feedback to the contractors. Staff determined the status of all transit routes proposed for the mode-share study and requested transit ridership data from transit operators for the routes.

Transportation / Land Use Connections Program

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

Climate Change Study

A climate change study is primarily being funded by the UPWP Core program with supplemental funding from the District of Columbia, Maryland, and Virginia Technical Assistance Accounts. See references in the progress report above, for further details about this study.

11.4 Regional Transit

Program Development

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

Provided a status update and overview of the Technical Assistance Program during the State Technical Working Group meeting.

Transit Within Reach

Staff completed the procurement process to identify consultants to perform the Transit Within Reach program and worked with Contracts and Procurement to issue task orders and purchase orders.

Staff identified liaisons to support each project and develop a presentation to be delivered during the kick-off meetings. Staff provided a greenlight to the jurisdiction and consultants to proceed with the projects.

High Capacity Transit Map

No activity.

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM

Continuous Air System Planning Program Management

Staff onboarded a new staff member (transportation data analyst) working under the Continuous Airport System Planning (CASP) program.

Staff began to develop a recruitment announcement for a planner for the CASP program.

Air Passenger Survey

Staff reviewed the documents providing background and context for the Washington-Baltimore Regional Air Passenger Survey (APS) and the CASP program.

Staff reviewed the flow chart documenting the data editing, factoring, and production of factored 2019 APS tables

Air Cargo Element Update

No Activity.

Ground Access Travel Time Study

No Activity.

Ground Access Forecast and Element Update

Staff prepared and submitted a memo containing the ground access forecasts and ground access element update using data from the 2017 Washington-Baltimore Regional Air Passenger Survey to the Aviation Technical Subcommittee at its November meeting. No comments were submitted by Subcommittee members and the draft was considered "final" in December 2021.

PROGRESS ON PLAN PRODUCTS

Task 7. Travel Monitoring and Data Programs

Travel Surveys

- Geographic-focused Surveys Workplan
 - Work to begin in late Winter/Spring 2022
- 7-Day Panel-Evaluation of Effectiveness of Smartphone Data Collection Methodology (June 2022)
 - Data analysis underway.
- COVID-19 Pandemic Travel Behavior Survey Literature Review (June 2022)
 - Data collection underway

Travel Analysis Studies and Research

- Transportation Data Dashboard (June 2022)
 - Under development
- COVID-19 Pandemic Regional Travel Behavior (periodic updates)
 - Periodic updates and presentations delivered and to be delivered throughout performance period.
- COVID-19 Travel Monitoring Snapshots (periodic updates)
 - Snapshots published in July (May 2021 data), September (July 2021 Data), and October (August and September Data)
 - Future snapshots anticipated and under development

Task 8. Regional Land Use and Transportation Planning Coordination

Socioeconomic Forecasting

- Baseline Employment Guidance (June 2022)
Work to begin in Spring 2022
- Travel Model Employment Definition Adjustment Factors (June 2022)
 - Factors to be reviewed after next Baseline Employment Guidance update
- Activity Centers and High-Capacity Transit Station Area Forecasts (June 2022)
 - Under development.
- Code Census Block Groups to TAZ (June 2022)
 - Under development
- Census 2020 reports and presentations (ongoing)
 - Initial draft and presentation complete to highlight demographic trends shown in the 2020 Census PL94-171 legislative redistricting data
- Cooperative Forecasting Round 10 workplan (December 2021)
 - Complete
- Multifamily Housing Report (June 2022)
 - Complete
- Commercial Construction Indicators Report (June 2022)
 - Work to begin later in fiscal year

Coordinated Human Services Transportation Plan

- The current Coordinated Plan was adopted by the TPB in December of 2018
- The next Enhanced Mobility Solicitation will occur in the summer of 2023.
- The next update of the Coordinated Plan will occur in 2022

Phase II Outreach for Visualize 2045

- Release of findings – Winter 2022

Voices of the Region Storymap for Visualize 2045

- Product development – September 2021 - February 2022
- Product release – Winter 2022

Community Leadership Institute (18th session)

- Spring 2022

Open Houses for Visualize 2045

- April 2022

Travel Forecasting

A series of highway and transit networks reflecting the latest LRTP and TIP for input to the regional travel demand model.

- 2022 Update to Visualize 2045: Transportation networks have been developed for 2021, 2023, 2025, 2030, 2040, and 2045.
- SIP work associated with the 2015 Ozone NAAQS: Work is underway on the 2017 and 2020 networks for SIP work.
- Gen3 Travel Model: Transportation networks with four time-of-day periods have been developed for 2018 base year. Work is underway on the 2045 network.
- Maintenance, support for and development of currently adopted travel models, including inputs, application files, and documentation.
 - Travel Forecasting Subcommittee: Staff has conducted meetings in July, September, and November.
 - Staff is working to migrate from an older mode choice application program to a newer program.
 - Staff responded to support requests regarding running the regional travel demand model. In December, staff serviced four data requests (total of 18 for FY 22).
- Continued development, with consultant assistance, of the TPB's next-generation travel demand forecasting model, which will be an activity-based model (ABM), known as the Gen3 Model, which will occur over a three-and-a-half-year period, from FY 2020 to FY 2024.
 - Gen3, Phase 1 Model: A developmental model and associated technical documentation. This developmental travel model, which is designed for testing by TPB staff, is currently expected in late Feb. 2022 (FY 22).
 - Staff continues to manage consultant (RSG) developing the Gen3 Model.
 - Staff reviewed and provided feedback on consultant deliverables.
 - Gen3, Phase 1 Model has been estimated. Calibration and validation is complete. Documentation is in progress.
 - Gen3, Phase 2 Model: Expected to be a production-use travel model that could be used for regional planning work. Model is expected in summer 2023 (i.e., late FY 23 or early FY 24).

Mobil Emissions Planning

- Air quality conformity analysis of the LRTP (2022 Update to Visualize 2045): Conduct runs of the travel model and mobile emissions model and prepare technical documentation.
 - Travel demand modeling: Completed for 2021, 2023, 2025, 2030, 2040, and 2045.
 - Mobile emissions modeling: MOVES2014b model runs conducted for 2021, 2023, 2025, 2030, 2040, and 2045.
- TPB Climate Change Mitigation Study of 2021 (CCMS). This study spans two fiscal years: FY 21 and FY 22.
 - COG/TPB staff presentations, FY 22
 - Morrow, Erin. "TPB Climate Change Mitigation Study of 2021 - Overview and Update." presented at the October meeting of the National Capital Region Transportation Planning Board's Community Advisory Committee, held at the Metropolitan Washington Council of Governments, October 14, 2021.

- <https://www.mwcog.org/events/2021/10/14/community-advisory-committee/>.
 - Morrow, Erin. “TPB Climate Change Mitigation Study of 2021 - Overview and Update.” presented at the November meeting of the National Capital Region Transportation Planning Board’s Access for All Advisory Committee, held at the Metropolitan Washington Council of Governments, November 12, 2021. <https://www.mwcog.org/events/2021/11/12/access-for-all-advisory-committee-afa/>.
 - Consultant presentations, FY 22
 - Grant, Michael. “TPB Climate Change Mitigation Study of 2021 - Scenario Development.” presented at the September meeting of the Technical Committee of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, September 10, 2021. <https://www.mwcog.org/events/2021/09/10/tpb-technical-committee-tpb/>.
 - Grant, Michael. “TPB Climate Change Mitigation Study of 2021 - Scenario Development.” presented at the September meeting of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, September 22, 2021. <https://www.mwcog.org/events/2021/09/22/transportation-planning-board-tpb/>.
 - Grant, Michael, Kanti Srikanth, and Mark S. Moran. “TPB Climate Change Mitigation Study of 2021 - Report Findings.” presented at the December meeting of the Technical Committee of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, December 3, 2021. <https://www.mwcog.org/events/2021/12/3/tpb-technical-committee/>.
 - ——. “TPB Climate Change Mitigation Study of 2021: Report Findings.” presented at the December meeting of the National Capital Region Transportation Planning Board’s Community Advisory Committee, held at the Metropolitan Washington Council of Governments, December 9, 2021. <https://www.mwcog.org/events/2021/12/1/community-advisory-committee/>.
 - ——. “TPB Climate Change Mitigation Study of 2021: Report Findings.” presented at the December Work Session of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, December 13, 2021. <https://www.mwcog.org/events/2021/12/13/tpb-climate-change-mitigation-study-work-session1/>.
 - Grant, Michael, and Mark S. Moran. “TPB Climate Change Mitigation Study of 2021: Report Findings.” presented at the December meeting of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, December 15, 2021. <https://www.mwcog.org/events/2021/12/15/transportation-planning-board/>.
 - COG/TPB staff documents, FY 22
 - Moran, Mark S. Memorandum to National Capital Region Transportation Planning Board. “TPB Climate Change Mitigation Study of 2021: Release of Literature Review with Executive Summary (Item #5, Steering Committee and Director Report).” Memorandum, July 15, 2021. <https://www.mwcog.org/events/2021/7/21/transportation-planning-board/>.

- COG website: “TPB Climate Change Mitigation Study of 2021.” Metropolitan Washington Council of Governments, July 15, 2021. <https://www.mwcog.org/documents/2021/07/15/tpb-climate-change-mitigation-study-of-2021-climate-change-greenhouse-gas-scenario-planning/>.
- TPB staff. Memorandum to TPB Community Advisory Committee. “TPB Community Advisory Committee Questions and TPB Staff Responses Regarding the October 14, 2021 TPB Staff Presentation on the TPB Climate Change Mitigation Study.” Memorandum, November 9, 2021.
- Consultant documents, FY 22
 - ICF. TPB Climate Change Mitigation Study of 2021: A Review of Climate Action Plans and Literature on Transportation Greenhouse Gas Emissions Reduction Strategies and Their Effectiveness. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, July 8, 2021. <https://www.mwcog.org/events/2021/7/9/tpb-technical-committee/>.
 - ICF. TPB Climate Change Mitigation Study of 2021: Task 4 Technical Memo: Scenarios and Associated Greenhouse Gas Reduction Actions. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, August 25, 2021. <https://www.mwcog.org/events/2021/09/10/tpb-technical-committee-tpb/>.
 - ICF. TPB Climate Change Mitigation Study of 2021: Task 5 Technical Documentation: Selection of Modeling Tools and Analysis Approach. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, November 5, 2021.
 - ICF, Fehr & Peers, and Gallop Corporation. TPB Climate Change Mitigation Study of 2021: Scenario Analysis Findings. **Draft Report**. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, December 9, 2021.
 - ———. TPB Climate Change Mitigation Study of 2021: Technical Appendix. **Draft Report**. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, December 17, 2021.
- Technical activities, including preparation of mobile inventories and development of mobile budgets, and documentation related to the State Implementation Plans (SIPs) to meet the 2015 ozone NAAQS requirements.
- DEP and TPB staff continued to coordinate with state air agencies on plans related to development of Reasonable Further Progress (RFP) and Attainment State Implementation Plans (SIPs) to address requirements of the 2015 Ozone National Ambient Air Quality Standards (NAAQS).
- TPB staff worked with DEP staff, member jurisdictions, and state air agencies to facilitate various aspects of air quality and climate change planning activities.
 - Developed joint letter: Day, Robert, Metropolitan Washington Air Quality Committee (MWAQC), Deni Taveras, Climate, Energy and Environment Policy Committee (CEEPC), Charles Allen, National Capital Region Transportation Planning Board (TPB). Letter to Michael S. Regan and Administrator, U.S. Environmental Protection Agency. “Support for the Proposed Rule to Revise Existing National Greenhouse Gas Emissions Standards for Passenger Cars and Light Trucks through Model Year 2026; Docket ID No. EPA-HQ-OAR-2021-0208.” Letter, September 22, 2021. <https://www.mwcog.org/events/2021/9/22/climate-energy-and-environment-policy-committee/>.
 - Developed joint letter: Day, Robert, Metropolitan Washington Air Quality Committee (MWAQC), Deni Taveras, Climate, Energy and Environment Policy Committee

(CEEPC), Charles Allen, National Capital Region Transportation Planning Board (TPB). Letter to Steven Cliff and National Highway Traffic Safety Administration. "Support for the Proposed Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks; Docket ID No. NHTSA-2021-0053." Letter, October 18, 2021.

- Upon finalizing the 2020 vehicle registration/vehicle identification number (VIN) decoding process based on the datasets provided to COG/TPB by the three state air agencies, TPB staff summarized and presented key findings to the TPB Technical Committee and MWAQC-TAC. TPB staff also transmitted the decoded dataset to the three state air agencies.
- TPB staff also continued to conduct MOVES model tests to further refine greenhouse gas emissions modeling estimates for future studies.
- Transportation and Climate Initiative (TCI)
 - Developed memorandum: Morrow, Erin. "Transportation and Climate Initiative (TCI): Model Rule, Summary of Public Input, and Additional Draft Documents Released." July 15, 2021.
<https://www.mwcog.org/file.aspx?&A=pWJUzO2psFXTCLsxM58TL3oPkHiOMrhDBiH56IR7HfA%3d>

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM

- Ground Access Travel Time Update (June 2022)
 - Work to commence later this year
- Ground Access Forecast Update (June 2022)
 - Work to commence later this year

FY 2022 TRANSPORTATION PLANNING BOARD
COG/TPB BUDGET EXPENDITURE SUMMARY
December 2021

	DC, MD and VA		BILLED		% FUNDS EXPENDED
	FTA, FHWA and LOCAL		FUNDS	THIS	
	BUDGET TOTAL	EXPENDED	MONTH		
1. Long-Range Transportation Planning					
Long - Range Transportation Planning	1,095,435.13	492,529.05	91,953.85		45%
Subtotal	1,095,435.13	492,529.05	91,953.85		45%
2. Transportation Improvement Program					
Transportation Improvement Program	266,963.20	113,514.62	20,904.39		43%
TIP Database Support	200,000.00	104,817	13,302		52%
Subtotal	466,963.20	218,331.62	34,206.39		47%
3. Planning Elements					
Congestion Management Process	434,253.21	182,851.24	38,990.1		42%
Systems Performance, Ops & Tech Planning	632,941.76	201,962.98	43,090.31		32%
Transportation Emergency Preparedness Planning	128,257.20	42,766.52	13,461.43		33%
Transportation Safety Planning	311,703.59	116,675.31	21,204.62		37%
Bicycle & Pedestrian Planning	168,032.40	76,966.94	12,770.05		46%
Regional Public Transportation Planning	391,160.06	112,092.81	21,675.44		29%
Freight Planning	318,664.86	107,022.21	20,389.55		34%
Metropolitan Area Transportation Operation Coord Program Planning	170,787.19	71,530.88	16,280.8		42%
Performance-Based Planning & Programming	212,468.43	126,372.91	22,752.76		59%
Subtotal	2,768,268.70	1,038,241.8	210,615.06		38%
4. Public Participation					
Public Participation	994,710.64	329,239.25	56,136.52		33%
Subtotal	994,710.64	329,239.25	56,136.52		33%
5. Travel Forecasting					
Software Support	226,785.46	61,048.54	10,411.73		27%
Network Development 4t	1,012,945.63	448,742.87	77,094.25		44%
Models Development	2,058,605.72	632,704.53	128,273.31		31%
Subtotal	3,298,336.81	1,142,495.94	215,779.29		35%
6. Mobile Emissions Planning					
Air Quality Conformity	922,930.14	447,445.1	85,007.19		48%
Mobile Emissions Analysis	1,116,241.77	510,833.78	114,046.25		46%
Subtotal	2,039,171.91	958,278.88	199,053.44		47%
7. Travel Monitoring and Data Programs					
Regional Travel Survey	326,936.32	122,643.93	21,558.02		38%
Traffic Analysis & Research	841,214.05	90,723.42	33,691.53		11%
Regional Transportation Data Clearinghouse	324,078.11	104,005.32	19,784.96		32%
GIS Analysis	648,770.77	292,643.85	37,353.83		45%
Subtotal	2,140,999.25	610,016.52	112,388.34		28%
8. Planning Scenarios and Socioeconomic Forecasting					
Socioeconomic Forecasting	1,190,180.11	484,558.34	102,081.85		41%
Subtotal	1,190,180.11	484,558.34	102,081.85		41%
9. Mobility and Enhancement Programs					
Transportation and Land Use Connections Program	412,200.72	55,577.49	5,301.55		13%
Enhanced Mobility Grant Program	98,545.26	48,376.48	7,647.48		49%
Transportation Alternatives Set-Aside Programs	38,158.07	13,940.9	1,853.57		37%
Reg Roadway Safety PgmAM	439,766.10	19,544.06	4,129.83		4%
Subtotal	988,670.15	137,438.93	18,932.43		14%
10. TPB Support and Management					
TPB Support and Management	963,378.33	307,038.33	51,332.08		32%
Subtotal	963,378.33	307,038.33	51,332.08		32%
Core Program	15,946,114.23	5,718,168.66	1,092,479.25		36%
A. District of Columbia Technical Assistance					
Program Development & Misc.	274,755.81	11,768.66	1,434.49		4%
B. Maryland Technical Assistance					
Program Development & Misc.	483,303.48	19,005.88	848.81		4%
C. Virginia Technical Assistance					
Program Development & Misc.	436,679.71	30,173.79	7,032.23		7%
D. Public Transit Technical Assistance					
Program Development & Misc.	382,237.46	5,494.8	326.46		1%
Technical Assistance	1,576,976.46	66,443.13	9,641.99		4%
TPB Grand Total	17,523,090.69	5,784,611.79	1,102,121.24		33%

FY 2022 TRANSPORTATION PLANNING BOARD
 FINANCIAL STATUS OF TECHNICAL ASSISTANCE
 December 2021
 SUPPLEMENT 1

	TOTAL		FTA/STA/LOCAL		PL FUNDS/LOCAL	
	AUTHORIZED	TOTAL	AUTHORIZED	FTA	AUTHORIZED	FHWA
	BUDGET	EXPEDITURES	BUDGET	EXPEDITURES	BUDGET	EXPEDITURES
A. District of Columbia Technical Assistance						
Climate Chg Mit Study -DC	7,460.00	7,460.30	53.07	53.07	7,406.93	7,407.23
Pgm Development & Misc	10,999.68	4,308.36	78.25	30.65	10,921.43	4,277.71
Regional Safety PGM-DC	30,000.00	0.00	213.41	0.00	29,786.59	0.00
Big Data Study-DC	196,296.13	0.00	1,396.40	0.00	194,899.73	0.00
TLC-DC	30,000.00	0.00	213.41	0.00	29,786.59	0.00
Subtotal	274,755.81	11,768.66	1,954.54	83.72	272,801.27	11,684.94
B. Maryland Technical Assistance						
Feasibility/Special Studies	14,921.00	14,920.60	106.14	106.14	14,814.86	14,814.46
MARC - VRE Runthrough - MD	24,998.00	0.00	177.83	0.00	24,820.17	0.00
Program Development & Misc	15,000.22	4,085.28	106.71	29.06	14,893.51	4,056.22
Regional Safety PGM-MD	35,000.00	0.00	248.98	0.00	34,751.02	0.00
Training, Misc and Tech Support	133,384.26	0.00	948.86	0.00	132,435.40	0.00
TLC-MD	260,000.00	0.00	1,849.57	0.00	258,150.43	0.00
Subtotal	483,303.48	19,005.88	3,438.09	135.20	479,865.39	18,870.68
C. Virginia Technical Assistance						
Climate Chg Mit Study-VA	14,921.00	14,920.60	106.14	106.14	14,814.86	14,814.46
Pgm Development & Misc	10,000.15	2,661.12	71.14	18.93	9,929.01	2,642.19
Regional Safety PGM-VA	35,000.00	0.00	248.98	0.00	34,751.02	0.00
TBD	6,359.64	0.00	45.24	0.00	6,314.40	0.00
Transportation/Land Use Connection Program	80,320.00	0.00	571.37	0.00	79,748.63	0.00
Travel Demand Modeling	85,079.43	0.00	605.23	0.00	84,474.20	0.00
Travel Monitoring	204,999.49	12,592.07	1,458.31	89.58	203,541.18	12,502.49
Subtotal	436,679.71	30,173.79	3,106.42	214.65	433,573.29	29,959.14
D. WMATA						
Pgm Development & Misc	5,000.07	5,494.80	5,000.07	5,494.80	0.00	0.00
Regional HCT Graphic/Map	56,630.00	0.00	56,630.00	0.00	0.00	0.00
TBD	70,607.39	0.00	70,607.39	0.00	0.00	0.00
Transit Within Reach Soli	250,000.00	0.00	250,000.00	0.00	0.00	0.00
Subtotal	382,237.46	5,494.80	382,237.46	5,494.80	0.00	0.00
Grand Total	1,576,976.46	66,443.13	390,736.51	5,928.37	1,186,239.95	60,514.76