

FY 2022



National Capital Region
Transportation Planning Board

Work Program Progress Report

January 2022

FY 2022

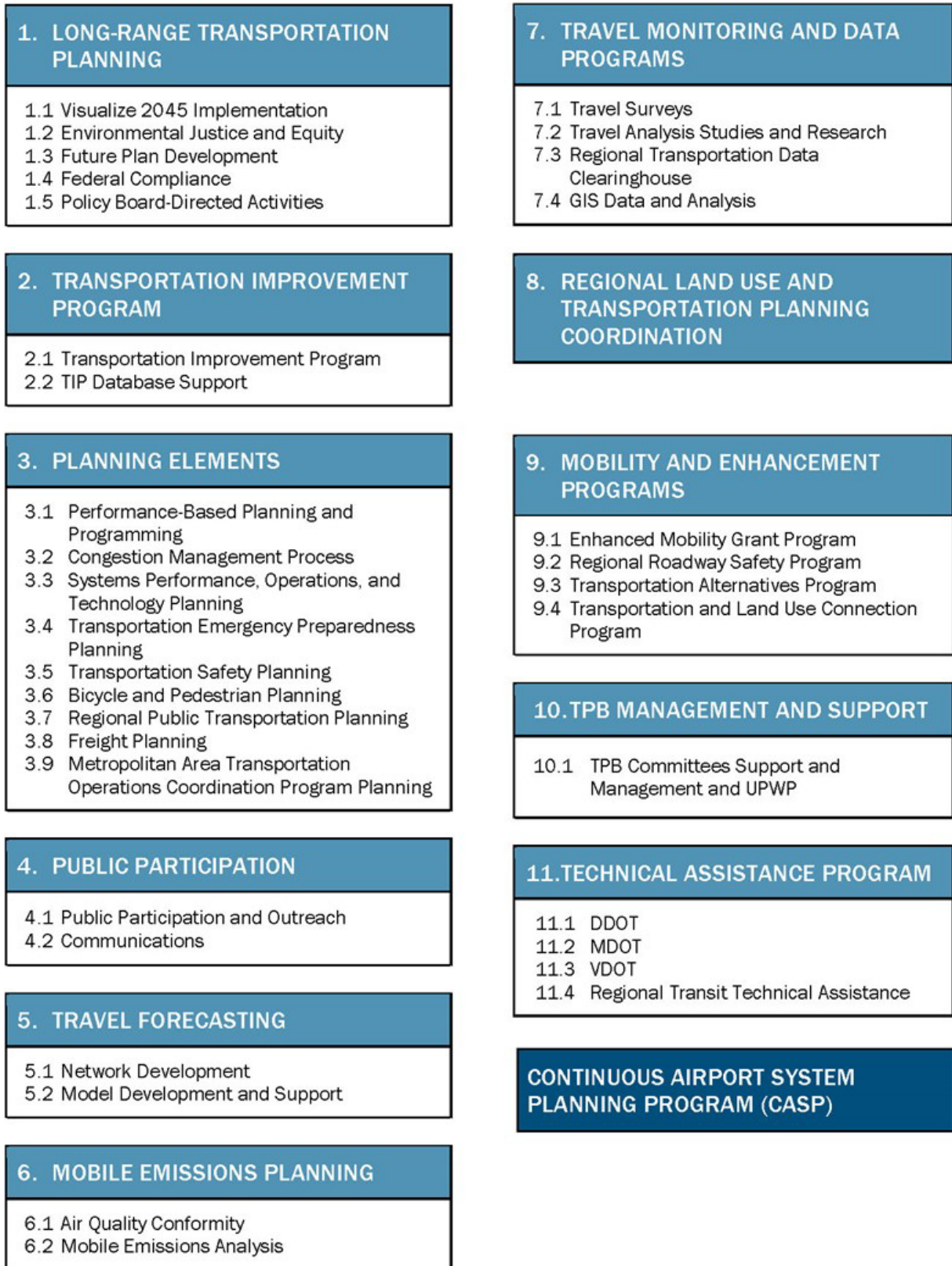
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The TPB approved its FY 2022 Unified Planning Work Program (UPWP) in March 2021. The TPB Work Program Progress Report provides a short summary of each activity for the month of January. In addition, this report concludes with status updates reflecting 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	\$94,687	54%	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 finalize plans for the public comment period on the Air Quality Conformity analysis determination, the TIP and the Plan, as well as virtual forums to present the draft plan. 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.

Staff coordinated closely with the new TPB Communications Manager to develop a strategic plan for the rollout of the update to Visualize 2045.

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.

Following the prior 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, the staff continued to scope out a unique planning product that would support incorporation equity into regional planning activities.

Staff participated in discussion related to upcoming COG-led equity training activities.

1.3 – Future Plan Development

In January 2022, 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.

As of this time much of the draft plan and appendices are nearing completion. Staff continued work on tasks related to documenting the technical and financial inputs to Visualize 2045, graphic design of the plan, development of the plan appendices, and preparation for the comment period and its related materials, to the draft final LRTP content, communications, mapping and public participation.

Staff received additional data from the TPB Travel Model needed to produce a series of performance measures that convey the forecast the performance of the region’s transportation system in 2045. Using model-data and other data, the TPB staff produced maps and charts in spreadsheets and then produced a preliminary presentation to present the information to TPB leadership. In February, the staff will be refining the presentation and content and messaging for delivery to the public, the TPB Technical Committee, and the board, as well as for inclusion in the plan.

Staff continued the development of a stand-alone Executive Summary for the plan.

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

In coordination with other TPB staff, the LRTP team initiated a contract to conduct a webinar series on resiliency planning for the TPB region.

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	\$17,050	50%	37

2. TRANSPORTATION IMPROVEMENT PROGRAM

2.1 Transportation Improvement Program (TIP)

At its meeting on January 7, 2022 the TPB Steering Committee approved two resolutions to amend the FY 2021-2024 Transportation Improvement Program (TIP). The first amendment, requested by DDOT, added approximately \$12 million in FTA Bus and Bus Facilities Discretionary and Formula programs (Sect. 5339 and Sect. 5339(b)) and District funding for capital investments in the DC Circulator project listing. The second resolution to amend the TIP was requested by VDOT to add approximately \$12 million in NVTA and other local funds to the Northstar Boulevard Extension project, and about \$15 million in Federal Lands Transportation Program (FLTP), NVTA, and local funds to the Construction: Federal Lands Highway Project Grouping. The Northstar Boulevard Extension project is included in the Air Quality Conformity Analysis of the 2020 Amendment to Visualize 2045 and the FY 2021-2024 TIP, and the DC Circulator capital improvements and Federal Lands Highway Project grouping are both exempt from the air quality conformity requirement, Full funding for all projects was included in the financial analysis of the Visualize 2045 plan.

2.2 TIP Database Support

Contractor EcoInteractive, 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. Work done under regular maintenance hours included: fixing the CMP report so that it was able to run on TIP projects as well as LRTP projects. Under an expanded contract for professional services, EcoInteractive developed and refined further customizations of the software platform, including: enhancements to the project description reports, and enhancements to the Conformity reporting tool that allows for reports to be run with combined LRTP and TIP data sets.

Task 3	BUDGET	Billed this month	% Funds Expended	UPWP Page
PLANNING ELEMENTS	\$2,768,270	\$165,411	43%	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 Highway Safety targets adopted in January to the State DOTs, along with supporting documentation.

TPB staff were part of a panel discussion at a FHWA National Virtual Peer Exchange on Target-Setting Coordination.

TPB staff prepared briefing materials on the regional PBPP transit asset management targets, briefed the RPTS, and prepare to brief the Technical Committee in February, Staff worked on updates to highway asset performance data for pavement and bridge condition and highway system performance.

3.2 Congestion Management Process

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

The set of TPB Connected and Automated Vehicle (CAV) principles was approved by the TPB.

The January 6, 2022 virtual meeting of the Systems Performance, Operations, and Technology Subcommittee was organized and conducted, discussing recent CAV-related activities by the Maryland and Virginia Departments of Transportation, as well as the Commuter Connections Advanced Transportation and Congestion Mitigation Technologies Deployment (ATCMTD) project.

3.4 Transportation Emergency Preparedness Planning

The January 12, 2022 virtual meeting of the Transportation Emergency Preparedness Committee (R-ESF 1) was organized and conducted, discussing current regional transportation emergency preparedness issues.

3.5 Transportation Safety Planning

Staff developed agenda items and secured speakers for the regularly scheduled February 8, 2022 meeting of the Transportation Safety Subcommittee.

Staff held planning sessions on January 11 and January 25 with the Transportation Safety Subcommittee Chair to identify topics and speakers for future Safety Subcommittee meetings.

The TPB approved a set of regional highway safety targets at their meeting on January 19, 2022. Federal regulations require MPOs to set such safety targets annually.

3.6 Bicycle and Pedestrian Planning

The draft Bicycle and Pedestrian Plan for the National Capital Region was prepared and distributed to Technical Committee members ahead of the regularly scheduled TPB Technical Committee Meeting on February 4, 2022.

The January 18, 2022 meeting of the Bicycle and Pedestrian Subcommittee was organized and held. The agenda included 1) a review of the Bicycle and Pedestrian Plan for the National Capital Region with an emphasis on the revisions that have been made since the last presentation as well as the interactive project map and dashboard, 2) a briefing by MDOT on the bicycle and pedestrian provisions of the I-495 and I-270 managed lanes study, and 3) a briefing on the Regional Roadway Safety Program. A new Subcommittee Chair was selected and approved for 2022.

Staff briefed the Maryland Pedestrian-Bicycle Emphasis Area Team (January 27) on the Street Smart pedestrian and bicycle safety campaign.

3.7 Regional Public Transportation Planning

The Regional Public Transportation Subcommittee met in January. Agenda items included: representatives for the MetroNow Coalition provided an overview of their Bus Transformation Project 2021 progress report; Montgomery County presented on their visually impaired urban navigation study and pilot design project, and NVTC reported on their Commuter Choice Program FY21 report. TPB staff presented on the High-Capacity Transit (HCT) map update and on the PBPP transit asset management targets.

Staff worked on the Visualize 2045 long range transportation plan. Staff prepared letters of endorsement for federal grant applications by member jurisdictions.

Staff attended a Maryland Statewide Transit Plan stakeholder roundtable and a WMATA JCC meeting.

3.8 Freight Planning

The January 6, 2022 meeting of the TPB Freight Subcommittee was organized and conducted. The agenda included an update on the Maryland Statewide Freight Plan, a briefing on CSX Transportation projects and activities in and around the Region, and an update on the Maryland State Rail Plan.

Staff held planning sessions on January 12 and January 26 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

Meetings of the MATOC Steering Committee, Severe Weather Coordination Working Group, and Operations Subcommittee were organized and conducted, discussing communications, coordination, and Traffic Incident Management topics.

Task 4	BUDGET	Billed this month	% Funds Expended	UPWP Page
PUBLIC PARTICIPATION	\$994,711	\$55,357	39%	45

4. PUBLIC PARTICIPATION

4.1 Public Participation and Outreach

The Community Advisory Committee (CAC) to the TPB met on January 13 for an online-only meeting. At the meeting the committee met with the TPB Chair and the TPB Staff Director. The committee was also briefed on the UPWP and discussed plans for the year ahead.

Staff provided a report to the TPB on Phase II outreach for Visualize 2045. This round of outreach 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 public engagement activities related to the finalization of Visualize 2045. These activities will include a series of virtual open houses and a public comment period, as well as the federally required forum on the Transportation Improvement Program (TIP).

Because of continuing concerns about COVID, staff decided to postpone the next session of the TPB’s Community Leadership Institute (CLI) to May or June. The CLI is a three-day training program that helps local activists understand the connections between regional planning and local action.

Staff continued work on a GIS story map 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 January. Staff confirmed 2022 meeting dates and proposed agenda items with Chair Aguirre and developed a timeline for update of the Coordinated Human Service Transportation Plan.

4.2 Communications

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

- **Podcast: Moving the needle on climate, housing, transit, & equity goals**

January 31, 2022

- **Following study, TPB considers strategies for reducing on-road emissions**

January 26, 2022

- **A recap of the January 2022 TPB meeting**

January 25, 2022

- **COG Board makes new planning framework its focus for 2022**

January 12, 2022

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 began work in January.

Task 5	BUDGET	Billed this month	% Funds Expended	UPWP Page
TRAVEL FORECASTING	\$3,298,337	\$210,582	41%	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 completed development of a 2045 transit network and provided it to the travel demand modeling staff. 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 involved 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). The 2018 network will be used for Gen3 Model, Phase 1, sensitivity testing that is currently underway. Staff transmitted the 2045 network files to RSG on January 26 for Gen3 Model, Phase 2, development. Due to a change in plans, the 2045 networks will not be used for Gen3 Model, Phase 1, sensitivity testing.

Staff completed the 2017 and 2020 highway and transit network files, which will be used 1) for developing inventories of on-road mobile emissions for State Implementation Plan (SIP) work associated with the 2015 Ozone National Ambient Air Quality Standards (NAAQS) and 2) for estimating greenhouse gas (GHG) emissions.

Staff responded to an inquiry from a consultant about the Dulles Toll Road collector-distributor roads.

Staff updated the network geodatabase and the Public Transport (PT) export function of COGTools to include additional attributes in the node and mode files that are required as part of the PT fare specifications. In the past, staff had added those attributes to the network files through a post-processing process. Staff is currently conducting travel model runs to test the updated network files.

Staff has been working on a major update of the COGTools user’s manual. In response to the comments and suggestions received from the latest internal review, staff continued to make updates to the user’s manual in January.

Staff is in the process of preparing tables and figures for the Gen2/Ver. 2.4 Model, highway, and transit networks 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. Staff ran, attended, and provided logistical support for the January 28 TFS meeting, which included the following topics:

- Modeling Public Transport in The Arlington Co. Tour-Based Travel Model
- Transitioning from a Trip-Based Travel Model to an Activity-Based Travel Model: Motivations and Experiences of The Oregon Department of Transportation
- COG/TPB Gen3 Travel Model: Status Report
- Transportation Research Board (TRB) 101st Annual Meeting

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

Using the Gen2/Ver. 2.4 Model and model inputs for the 2022 Update of Visualize 2045, staff conducted a scenario analysis that examined the impacts of hypothetical zero bus fare and zero

transit fare policies for the region. Staff documented this analysis in an internal memo, dated January 18.

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

Staff developed two visualizer tools that can be used to visualize region-level Gen2 Model summaries. The tools were tested and shared within the team.

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

On January 27, staff received from Bentley staff the Cube catalog files for the Arlington County Travel Model, which uses Public Transport (PT) multipathing for transit modeling. Staff are in the process of studying these catalog files and exploring the feasibility of migrating from PT single pathing to PT multipathing in the Gen2/Ver.2.4_PT Model and Gen3 Model.

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 January 6 and 20.
- Staff held an ad hoc meeting with RSG on January 20 to discuss the scope of Gen3 Model, Phase 2, development (Task Order 4).
- RSG experienced staffing changes in January 2022.
- Per request from RSG, staff created maps that visualize model validation performance, in terms of traffic volumes on screenlines (estimated-to-observed ratios) for the Gen2/Ver.2.4 and Gen3 Models including an overlay of jurisdictional boundaries. Staff shared the maps with RSG and BMG on January 4.
- Staff provided a second-round review of a draft RSG report that documents the results from the Phase 1 model estimation on January 13, which was then finalized on January 19.
- Staff provided a second-round review on January 5 of a draft memo developed by RSG, dated 12/15/21, on "Gen3 Phase 2 Scope of Work and Potential Tasks."
- Staff received the Gen3, Phase 1, Model on January 8 and tested it on the COG's travel modeling servers tms6 and tms8. Specifically,
 - Staff successfully ran the base model without memory chunk size training on tms8. A full Gen3 Model run took about 36 hours on tms8.
 - Staff compared the base model run results to those from RSG's base model run. Staff noticed differences between the COG and RSG runs and shared the model comparison summaries with RSG.

- Staff conducted a test run on tms6 with memory chunk size training. The test run failed, and staff investigated the possible causes. RSG found that it was due to hardware requirements for memory chunk size training for the Gen3 Model.
 - Staff created a log file to track all the Gen3 model runs conducted on the COG servers.
 - Staff failed to run the ABM Visualizer to summarize Gen3 Model outputs. Staff investigated the issue and shared the findings with RSG.
 - Staff compiled and compared the runtime statistics for major supply model steps between Gen2/Ver.2.4 Model, Gen2/Ver.2.4_PT Model, and Gen3, Phase 1, Model.
- Using the base Gen3, Phase 1, Model, staff is in the process of conducting Phase 1 sensitivity tests following a plan laid out in August. According to this plan, RSG will conduct two 2018 tests (#8, #17), and COG will conduct one to three tests (#2, #5, and/or #16). Specifically,
 - Staff scanned the Gen3 Model input files and outlined questions and issues regarding the preparation of year-2045 model inputs for a horizon-year sensitivity test. Staff discussed the issues with RSG on January 20.
 - Per suggestion from RSG, Staff made an update to the sensitivity testing plan on January 20: All tests will be conducted for 2018 in Phase 1.
 - Staff prepared model inputs for Test #2 (“Close Arlington Memorial Bridge to auto use”) and Test #16 (“Significantly increase toll rates during peak periods on all variably priced tolling facilities”). Staff is in the process of preparing model inputs for Test #5 (“Double the frequency of all high-capacity transit [HCT] services”). However, staff may forego this test in February due to the tight deadline for Phase 1 sensitivity testing.
 - Staff conducted one model run for Test #2 and two model runs for Test #16.
 - Staff developed a stand-alone toll setting program for the Gen3 Model and used it to re-estimate the toll values on variably priced tolling facilities for the baseline scenario of Test #16. Staff also compared the estimated toll values between Gen2/Ver. 2.4 Model and Gen3 Model.
 - Staff created a View-from-Space summary program to summarize the supply-side statistics at the regional level for one or multiple Gen3 Model runs.
- Enhancements and bug fixes related to Gen3 Model:
 - Staff updated the consumer price index (CPI) file for the Gen3 Model (changing the base year from 2007 to 2018 and updating the deflation factors accordingly) and transmitted the file to RSG on January 26.
 - Staff requested and ran the Python scripts that RSG developed to generate VMT and transit summaries in Phase 1 model validation. Staff also uncovered a glitch and instituted a fix in the LineSum control file on January 31, which eliminated the discrepancies that RSG staff noted earlier between the Python and LineSum transit summaries for Gen3 Model. Staff shared the updated LineSum control file with RSG.

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.

Finally, staff met with IT staff to discuss moving more workstations and servers to the cloud, using a new interface called C3HUB.

Other activities

Staff met with IT staff on January 18 regarding moving travel modeling work from on-premises (“on-prem”) modeling servers to servers in the cloud. IT staff demonstrated the C3HUB interface and discussed the next steps with TFEA staff.

Staff attended a webinar “What’s “normal” anyway? Assessing the pandemic’s long-term effects on travel behaviors,” organized by RSG, on January 26.

Staff attended ActivitySim Consortium meetings regularly on Tuesdays and Thursdays.

In January, staff reviewed ActivitySim Phase 7A proposals from the three “bench” consultants and attended a series of ad-hoc partners-only meetings to discuss the scoring of proposals, fund allocation, and scopes of work for Phase 7A development of the ActivitySim modeling package, which is the base package for the Gen3 Model.

Staff developed a Python script that reads the highway screenline crossing volume validation report and visualizes the validation performance in an automated procedure.

Task 6	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILE EMISSIONS PLANNING	\$2,039,172	\$189,362	56%	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, Visualize2045, including the air quality conformity analysis, system performance, and environmental justice analysis.

Upon finalizing the network 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 continued to conduct performance analysis of the plan using the measures identified by the Plan Development and Coordination Team. Staff began development of the draft summary and full conformity reports.

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

Staff began coordination of review of the Project InfoTrak (PIT) database to ensure that the conformity records for the PIT projects match the final conformity project input table as approved by the Transportation Planning Board (TPB) in the summer of 2021.

Staff responded to an inquiry from the District Department of Transportation (DDOT) regarding their planned bike and pedestrian projects.

In accordance with the TPB consultation procedures, staff forwarded to the consultation agencies and public advisory committees the January meeting agenda and a summary memo regarding the monthly TPB meeting and air quality conformity consultation elements.**6.2 Mobile Emissions Analysis**

Staff continued to conduct activities related to the TPB Climate Change Mitigation Study of 2021 (CCMS). With the study winding down, TPB staff held its final bimonthly meetings with the project consultant (ICF) regarding Phase 2 of the study, which 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 finalized the full analysis report and a technical appendix, which were posted on the study website. The project consultant provided briefings to the Climate, Energy, Environment and Policy Committee (CEEPC, item #4). Finally, TPB staff briefed the TPB Technical Committee on the climate change elements in the long-range transportation plan (item #7), and TPB Chair Sebesky outlined the process for developing a majority consensus on the climate change goals and strategies to inform future updates of the long-range transportation plan (TPB, item #11).

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).

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. Specifically, staff have been working closely with DEP staff on update of regional greenhouse gas inventories. Staff also briefed the TPB Technical Committee (Other Business) and the TPB (Director Report) on the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (Final Rule) and its potential impacts on the region.

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 Gen2/Ver. 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	\$78,204	32%	53

7. TRAVEL MONITORING AND DATA PROGRAMS

7.1 Travel Surveys

Regional Travel Survey

Staff fielded RTS data requests from stakeholders. For example, staff reached out to the City of Frederick staff to discuss the potential availability of data to inform the City’s bicycle and pedestrian mode share goals.

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

Smartphone Panel Survey

No activity.

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 a webinar as an invited panelist to discuss the regional impacts of the COVID-19 pandemic on travel behavior. As part of the webinar, noted preliminary findings for literature review.

Other

Staff provided input on the TPB Climate Change Mitigation Survey.

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

Staff responded to an inquiry about the availability of codebooks from previous COG/TPB household travel surveys.

Staff participated in Committee meetings, sessions, and workshops at the 2022 Transportation Research Board (TRB) Annual Meeting from January 9 – 13.

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 finalized the travel monitoring analysis for the period prior to the pandemic through November 2021 posted it on the COG/TPB website. Staff briefly discussed the snapshot at the January 28 Travel Forecasting Subcommittee meeting. In addition, staff provided data from the snapshot to fellow TPB staff for use in various presentations and analyses.

RTS In-Depth Analysis Project

Staff delivered its third presentation to the TPB Technical Committee on the project on January 7. 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

No activity.

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. Staff also prepared revisions to previously completed memoranda on EEAs and HCTs originally used to support the COG Board leadership retreat.

Other Activities

Staff identified potential opportunities as well as complimentary efforts for a Regional Active Transportation Count Program. Staff reached out to the National Park Service to learn more about their regional trail count program project. Staff is continuing to consider elements for this program.

Staff served on the selection panel for the Virginia Transportation Alternative Set-Aside Program. Staff reviewed and scores applications and then participated in a consensus meeting to develop funding recommendations to be delivered to the Transportation Planning Board.

Staff reviewed and provided feedback on abstracts submitted to the Transportation Land-Use Connections Program.

Staff accepted an invitation to represent COG/TPB on the Advisory Panel for the University of Virginia Biocomplexity Institute Social Impact Data Commons project.

Staff attended the TRB annual conference and prepared a post-TRB memo to share learnings with fellow TPB staff.

7.3 Regional Transportation Data Clearinghouse

Staff continued to process and verify the 2020 HPMS data for the District, Maryland, Virginia, and West Virginia for input into the SAS programs that synthesize pavement data for the region and to create a 2020 HPMS layer for the TPB Modeled Region.

Staff reviewed the active transportation data currently available in the RTDC and discussed options for updating these data with fellow TPB staff.

Staff responded to Loudoun County transportation staff to test the National Capital Trail Network web map application.

Staff tested the Equity Emphasis Areas web map application to verify it is responsive and available on the COG website.

Staff reviewed a memo to the State Technical Working Group on the PBPP schedule and activities for 2022.

Staff responded to a question from COG staff about the availability of bus route data.

Staff assisted Department of Environmental Programs (DEP) staff with a collaboration request from the District of Columbia through ArcGIS Online.

Staff participated in meetings and email exchanges with the Travel Forecasting and Emissions Analysis Program team and their contractor, RSG, for the Gen3 Model development.

7.4 GIS Data, and Analysis

Staff had a check-in meeting with Plan Development and Coordination staff on January 13 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 received draft data from fellow staff and are in the beginning stages of creating spatial dataset(s) from the survey data.

Staff continued to refine the 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.

Staff continued to work with fellow DTP staff to reconcile transit projects in the Project InfoTrak (PIT) database against the current dataset managed in GIS.

Staff attended and presented at the January Bicycle and Pedestrian Subcommittee meeting held on November 16. Staff gave a demonstration of the Bicycle and Pedestrian Plan data dashboard.

Staff planned and participated in the January 18 GIS Committee/GDX Working Group virtual meeting. Highlights of the meeting included: status reports on the NCR-GDX and NextGen 9-1-1, and a demonstration of Arlington County's snow operations applications.

Staff continued to work with COG's Information Technology (IT) staff to identify implement changes to TPB/COG's GIS hardware and software environment.

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 participated in a meeting to discuss the project to apportion 2020 Census blocks to transportation analysis zones (TAZs). Staff reviewed and provided feedback on the final product.

Staff prepared a formatted Excel spreadsheet of TPB's High Capacity Transit (HCT) stations at the request of the Planning Data and Research program director.

Staff responded to a question from the VDOT Bike/Pedestrian and Park & Ride Lot Coordinator regarding the projects in the Project InfoTrak (PIT) database.

Staff responded to a question from DTP staff regarding a cloud-based ArcGIS software environment.

Staff attended online training for the Virginia Department of Transportation's (VDOT) Pathways for Planning (P4P) online tolls for transportation planning on January 12.

Staff attended the Cooperative Forecasting and Data Subcommittee meeting on January 12.

Task 8	BUDGET	Billed this month	% Funds Expended	UPWP Page
REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION	\$1,190,179	\$69,280	47%	57

8. REGIONAL LAND USE AND TRANSPORTATION PLANNING COORDINATION

8.1 Socioeconomic Forecasting

Planning for Round 10

The Forecasting Subcommittee was briefed on 3 topics related to development of new Cooperative Forecasts: new changes to accessing demographic data on the Census Bureau's website; the City of Fairfax's methodology for preparing their Cooperative Forecasts; and the GMU/Fuller Institute presented on "The Washington Region's Economy in 2021 and Beyond". The Planning Directors received the same briefing from Ms. Chapman and focused on finalizing the 2021 monthly committee meetings and seeking opportunities to share the work.

DCPS staff also continued work on finalizing geo-coding of the DataAxle employment file with a goal of sharing individual jurisdictional databases in early February.

Staff began drafting a project description for consultant support to evaluate key questions to inform the next Cooperative Forecast.

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 worked with the Executive Office and Amazon staff to launch the new Housing Affordability Planning Program (HAPP) grants. 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. Abstracts are due February 9 and applications are due in March.

2020 Census Release and Analysis

DCPS staff continued work on the 2020 Census block to COG TAZ conversion, with a goal of distributing individual files to members in early February.

Visualize 2045 Performance Analysis

In support of the performance analysis for the 2022 update to Visualize 2045, staff completed developing estimates and forecasts of population and jobs within a half-mile of high-capacity transit in 2023 and 2045. Staff also identified Activity Centers with high-capacity transit. transmitted the results for the Planning Development and Coordination Team

Staff also recommended a list of transportation analysis zones associated with the high-capacity transit stations for the 2022 update to Visualize 2045 be added to the G Drive so other staff can access and utilize the same list. Staff will follow up to confirm it is available to other staff.

Other

TPB staff participated in an internal discussion of limitations and tradeoffs for the use American Community Survey and Decennial Census to develop the next round of Equity Emphasis Areas.

Task 9	BUDGET	Billed this month	% Funds Expended	UPWP Page
MOBILITY AND ENHANCEMENT PROGRAMS	\$988,671	\$19,344	16%	59

9. MOBILITY AND ENHANCEMENT PROGRAMS

9.1 Enhanced Mobility Grant Program

During the month of January staff issued award letters to successful applicants and continued collecting information required to apply to FTA for approval of Enhanced Mobility round 5 projects.

9.2 Regional Roadway Safety Program

The application period for the FY 2023 round of Regional Roadway Safety Program (RRSP) projects opened on January 18. The deadline to submit applications is March 18. Potential applicants may submit abstracts by February 11 to get preliminary feedback on project concepts.

Staff, in coordination with relevant jurisdictional officials, finalized scopes of work for each of the FY 2022 projects approved by the TPB in December 2021.

Task Orders for each of the five FY 2021 projects were executed and Purchase Orders were issued. Each of the five FY 2021 RRSP projects is now underway as described below:

- MD (Montgomery and Prince George's Counties – MD 650 Safety Study) – The consultant, representatives from Montgomery and Prince George's Counties, and COG staff convened for a project kick-off meeting on January 14, 2022 to finalize the work plan and determine data needs. A progress meeting was held on January 28, 2022.
- MD (Prince George's County - Roadway Safety Audits) - The consultant, representatives from Montgomery and Prince George's Counties, and COG staff convened for a project kick-off meeting on January 20, 2022 to review the Belcrest and Sherriff Road study segments and finalize the project work plan.
- MD (City of Laurel - Roadway Safety Audit) - The consultant, City of Laurel representatives, and COG staff convened for a project kick-off on January 19, 2022. During the meeting, the attendees reviewed the project goals and scope.
- VA (Arlington County - School Zone Speed Camera Guidelines) - The consultant, Arlington County representatives, and COG staff held a project kick-off meeting on January 18, 2022, to confirm project goals, review the scope of work, and discuss data needs.
- VA (Town of Herndon – Herndon Parkway Complete Streets) - The consultant, Town of Herndon representatives, and COG staff attended a project kick-off on January 20, 2022, to confirm the project scope and goals and to discuss data needs. Town of Herndon staff and the consultant held a follow-up meeting with VDOT staff to discuss whether a Signal Justification Report can be completed for the Herndon Parkway & Sunset Business Park intersection.

9.3 Transportation Alternatives Set-Aside Program

Staff and selection panel reviewed 24 applications for the FY 2023-24 round of Virginia TAP. Staff convened the selection panel on January 24 and January 31. Following four hours of discussion, the panel agreed upon eight projects to recommend for funding. Throughout this process, staff coordinated extensively with VDOT staff and with the CTB district member for Northern Virginia. 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 work on existing conditions and development of base map.
- Congress Heights Pedestrian Access Study (District of Columbia) - The consultants worked on a report for DCOP to review.
- Assessment of Microtransit (District of Columbia) - The assessment of existing conditions was reviewed and revised.
- Active Transportation Plan near the Huntington Metrorail Stations (Fairfax County) – Draft recommendations were submitted to the county for review.

- East End Transportation Study (Falls Church) – The consultant reviewed data provided by the city and developed draft recommendations.
- East Street Redesign (Frederick County) - The first stakeholder group meeting was held in January. Consultant worked on draft design.
- Greenbelt Road Corridor Plan (Greenbelt) – The consultant prepared for a Visioning meeting in February.
- Connecticut Avenue Corridor Planning (Kensington – Montgomery County) – Outreach was conducted, and interim documents prepared for review.
- Cool-Street Design Guidelines and Standards (Montgomery County) – Consultant worked on the report and toolkit.
- The Anacostia Gateway/PG Connector Trail Design Project – Consultant worked on preliminary design.
- Innovation Park Shuttle Service Feasibility Study (Prince William County) – Consultant staff prepared and submitted interim material for review.

The application period for the FY 2023 round of TLC was open between December 17 and February 22. The deadline for abstracts was January 10. Nineteen abstracts were submitted. Staff prepared comments on the abstracts, which were sent to the jurisdictions. An intern began work on the TLC program.

Task 10	BUDGET	Billed this month	% Funds Expended	UPWP Page
TPB MANAGEMENT AND SUPPORT	\$963,379	\$46,390	37%	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 **JAN FY 2022** 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 staff 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 JAN FY 2022:

Telephone / Web Ex / Microsoft Teams Communications:

- City-wide Roadway Safety Planning
- NCPC Open Session
- Refugee Resettlement
- HAPP Check-in
- TPB Climate Work Plan / Mayor Newton
- Major Metros Roundtable Discussion
- US DOT Briefing IGA Partners / Monthly Call
- CEEPC Legislative Internal Prep & Committee Call

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	\$56,692	8%	63
District of Columbia	\$274,756	\$724	5%	63
Maryland	\$483,305	\$43,399	13%	65
Virginia	\$436,679	\$11,712	10%	68
Regional Transit	\$382,238	\$856	2%	71

11. TECHNICAL ASSISTANCE

11.1 District of Columbia

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 submitted an update on the FY 2022 budget and plans to carry over funds to FY 2023.

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

Regional Safety Program

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

Transportation / Land Use Connections Program

As part of the Transportation/Land-Use Connections Program, the District of Columbia Technical Assistance Program is partially funding one technical assistance projects in the District of Columbia. 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.

11.2. Maryland

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 submitted an update on the FY 2022 budget and plans to carry over funds to FY 2023.

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.

Regional Safety Program

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

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.

Met with VDOT staff and provided an overview of the Technical Assistance Program.

Obtained consent to acquire unemployment insurance administrative records (ES-202) from the Virginia Department of Labor on behalf of local government. These records will be used to develop estimates and forecasts of employment.

Staff submitted an update on the FY 2022 budget and plans to carry over funds to FY 2023.

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

Travel Monitoring and Survey

Active Transportation Counts

Staff prepared the spring 2021 active transportation count data to be included in the report. This included summarizing and formatting the data, preparing charts, comparing with previous years' counts, and designing the report template. Staff submitted a draft report template to VDOT staff for review. Staff met with VDOT staff to discuss the options for the spring 2022 counting locations.

I-66 & I-395 Mode Share Study

Staff conducted data analysis for the VDOT I-66/I-395 mode share study, this included completing the traffic and active transportation data summaries.

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.

Transportation / Land-Use Connections Program

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

Regional Safety Program

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

11.4 Regional Transit

Program Development

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

Transit Within Reach

The jurisdictions, consultants, and staff liaisons participated in kick-off meetings for the projects.

For the Walter Johnson Shared-Use Path, staff collaborated with Montgomery County and the consultant to amend the scope and remove a section of the path influenced by a recent development application and increase the scope for the portion of the project that remains from 15 to 30 percent design.

High Capacity Transit Map

Staff gave a brief update at the January 25 meeting of the Regional Public Transportation Subcommittee to inform subcommittee members of the intended timeline for progress toward this effort for the remainder of the fiscal year.

CONTINUOUS AIRPORT SYSTEM PLANNING PROGRAM

Continuous Air System Planning Program Management

New staff member (transportation data analyst) continued with orientation by reviewing documents providing background and context for the Washington-Baltimore Air Passenger Survey (APS) and the CASP program.

Staff finalized a recruitment announcement for a planner for the CASP program and then worked with human resources to post it.

Staff delivered a briefing on the status of planning for the 2022 APS, upcoming activities, and the status of implementing survey improvement recommendations to the Aviation Technical Subcommittee on January 27. During the Subcommittee meeting, staff also reviewed the draft 5-year program of future grant-funded projects proposed to be undertaken as part of the CASP Program.

Air Passenger Survey

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

Staff held a meeting with the Department of Environmental Programs (DEP) staff to discuss updating air passenger data for greenhouse gas inventories.

Air Cargo Element Update

No Activity.

Ground Access Travel Time Study

No Activity.

Ground Access Forecast and Element Update

No Activity.

PROGRESS ON PLAN PRODUCTS

Task 3. Planning Elements

- 2022 Congestion Management Process Technical Report, draft to be developed by June 2022
- Develop Regional Highway Safety Targets
 - Draft targets presented in December 2021
 - Final targets adopted in January 2022
- Regional Bicycle and Pedestrian Plan Update
 - Plan to be updated and approved by June 2022

Task 4. Public Participation

Phase II Outreach for Visualize 2045

- Release of findings – Winter 2022

Voices of the Region Storymap for Visualize 2045

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

Community Leadership Institute (18th session)

- May or June 2022

Open Houses for Visualize 2045

- April 2022

Task 5. 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 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 are 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).

Task 6. Mobile 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/>.
 - Srikanth, Kanti. “TPB Climate Change Mitigation Study of 2021: Final Report Update.” Presented at the January meeting of the Technical Committee of the National Capital Region Transportation Planning Board, held at the Metropolitan Washington Council of Governments, January 7, 2022. <https://www.mwcog.org/events/2022/1/7/tpb-technical-committee/>.
 - 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/>.
- Grant, Michael, and Mark S. Moran. “TPB Climate Change Mitigation Study of 2021: Report Findings.” Presented at the January meeting of the COG Climate, Energy and Environment Policy Committee, held at the Metropolitan Washington Council of Governments, January 26, 2022. <https://www.mwcog.org/events/2022/1/26/climate-energy-and-environment-policy-committee/>.
- 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.
- ICF, Fehr & Peers, and Gallop Corporation. “TPB Climate Change Mitigation Study of 2021: Scenario Analysis Findings.” Final Report. National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, January 7, 2022. <https://www.mwcog.org/tpb-climate-change-mitigation-study-of-2021/>.
- ———. “TPB Climate Change Mitigation Study of 2021: Technical Appendix.” National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, January 7, 2022. <https://www.mwcog.org/tpb-climate-change-mitigation-study-of-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.
 - 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.
 - Morrow, Erin, and Dusan Vuksan. Memorandum to National Capital Region Transportation Planning Board. “Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards: Final Rule.” Memorandum, January 12, 2022.
- 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.

Task 7. Travel Monitoring and Data Programs ravel 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), October (August and September data), and January (October and November 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

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
January 2022

	DC, MD and VA		BILLED	
	FTA, FHWA and LOCAL	FUNDS	THIS	% FUNDS
	BUDGET TOTAL	EXPENDED	MONTH	EXPENDED
1. Long-Range Transportation Planning				
Long - Range Transportation Planning	1,095,435.13	587,216.67	94,687.62	54%
Subtotal	1,095,435.13	587,216.67	94,687.62	54%
2. Transportation Improvement Program				
Transportation Improvement Program	266,963.20	130,565.19	17,050.57	49%
TIP Database Support	200,000.00	104,817	0	52%
Subtotal	466,963.20	235,382.19	17,050.57	50%
3. Planning Elements				
Congestion Management Process	434,253.21	211,106.77	28,255.53	49%
Systems Performance, Ops & Tech Planning	632,941.76	234,046.14	32,083.16	37%
Transportation Emergency Preparedness Planning	128,257.20	52,444.34	9,677.82	41%
Transportation Safety Planning	311,703.59	134,035.8	17,360.49	43%
Bicycle & Pedestrian Planning	168,032.40	92,936.22	15,969.28	55%
Regional Public Transportation Planning	391,160.06	127,245.45	15,152.64	33%
Freight Planning	318,664.86	123,126.25	16,104.04	39%
Metropolitan Area Transportation Operation Coord Program Planning	170,787.19	84,947.64	13,416.76	50%
Performance-Based Planning & Programming	212,468.43	143,765.01	17,392.1	68%
Subtotal	2,768,268.70	1,203,653.62	165,411.82	43%
4. Public Participation				
Public Participation	994,710.64	384,597.13	55,357.88	39%
Subtotal	994,710.64	384,597.13	55,357.88	39%
5. Travel Forecasting				
Software Support	226,785.46	93,652.44	32,603.9	41%
Network Development	1,012,945.63	511,994.71	63,251.84	51%
Model Development	2,058,605.72	747,431.45	114,726.92	36%
Subtotal	3,298,336.81	1,353,078.6	210,582.66	41%
6. Mobile Emissions Planning				
Air Quality Conformity	922,930.14	519,172.29	71,727.19	56%
Mobile Emissions Analysis	1,116,241.77	628,468.69	117,634.91	56%
Subtotal	2,039,171.91	1,147,640.98	189,362.1	56%
7. Travel Monitoring and Data Programs				
Regional Travel Survey	326,936.32	142,032.07	19,388.14	43%
Traffic Analysis & Research	841,214.05	108,288.2	17,564.78	13%
Regional Transportation Data Clearinghouse	324,078.11	119,205.3	15,199.98	37%
GIS Analysis	648,770.77	318,695.93	26,052.08	49%
Subtotal	2,140,999.25	688,221.5	78,204.98	32%
8. Planning Scenarios and Socioeconomic Forecasting				
Socioeconomic Forecasting	1,190,180.11	553,838.4	69,280.06	47%
Subtotal	1,190,180.11	553,838.4	69,280.06	47%
9. Mobility and Enhancement Programs				
Transportation and Land Use Connections Program	412,200.72	63,386.15	7,808.66	15%
Enhanced Mobility Grant Program	98,545.26	55,154.58	6,778.1	56%
Transportation Alternatives Set-Aside Programs	38,158.07	15,477.22	1,536.32	41%
Other Tasks to be defined 9.5	439,766.10	22,765.16	3,221.1	5%
Subtotal	988,670.15	156,783.11	19,344.18	16%
10. TPB Support and Management				
TPB Support and Management	963,378.33	353,428.93	46,390.6	37%
Subtotal	963,378.33	353,428.93	46,390.6	37%
Core Program	15,946,114.23	6,663,841.13	945,672.47	42%
A. District of Columbia Technical Assistance				
Program Development & Misc.	274,755.81	12,493.14	724.48	5%
B. Maryland Technical Assistance				
Program Development & Misc.	483,303.48	62,405.23	43,399.35	13%
C. Virginia Technical Assistance				
Program Development & Misc.	436,679.71	41,886.03	11,712.24	10%
D. Public Transit Technical Assistance				
Program Development & Misc.	382,237.46	6,351.02	856.22	2%
Technical Assistance	1,576,976.46	123,135.42	56,692.29	8%
TPB Grand Total	17,523,090.69	6,786,976.55	1,002,364.76	39%

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

	TOTAL		FTA/STA/LOCAL		PL FUNDS/LOCAL	
	AUTHORIZED	TOTAL	AUTHORIZED	FTA	AUTHORIZED	FHWA
	BUDGET	EXPEDITURES	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES
A. DC Technical Assistant						
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	5,032.84	78.25	35.80	10,921.43	4,997.04
Regional Safety PGM-DC	30,000.00	0.00	213.41	0.00	29,786.59	0.00
TBD	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	12,493.14	1,954.54	88.87	272,801.27	12,404.27
B. MD Technical Assistant						
Climate Chg Mit Study -MD	14,921.00	14,920.60	106.14	106.14	14,814.86	14,814.46
Feasibility/Special Studies	24,998.00	0.00	177.83	0.00	24,820.17	0.00
Pgm Development & Misc	15,000.22	4,875.63	106.71	34.68	14,893.51	4,840.95
Regional Safety PGM-MD	35,000.00	0.00	248.98	0.00	34,751.02	0.00
TBD	133,384.26	42,609.00	948.86	303.11	132,435.40	42,305.89
TLC-MD	260,000.00	0.00	1,849.57	0.00	258,150.43	0.00
Subtotal	483,303.48	62,405.23	3,438.09	443.93	479,865.39	61,961.30
C. VA Technical Assistant						
Big Data Study-VA	14,921.00	14,920.60	106.14	106.14	14,814.86	14,814.46
Pgm Development & Misc	10,000.15	3,451.47	71.14	24.55	9,929.01	3,426.92
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
TLC-VA	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	23,513.96	1,458.31	167.27	203,541.18	23,346.69
Subtotal	436,679.71	41,886.03	3,106.42	297.97	433,573.29	41,588.06
D. WMATA						
Program Development & Misc	5,000.07	6,351.02	5,000.07	6,351.02	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	6,351.02	382,237.46	6,351.02	0.00	0.00
Grand Total	1,576,976.46	123,135.42	390,736.51	7,181.79	1,186,239.95	115,953.63