

ITEM 9 – Information
February 21, 2024

Briefing on Selected 2024 Work Activities

Background: A briefing will be provided on several Unified Planning Work Program (UPWP) projects that are currently underway, including work on equity, climate change, safety, and more.



MEMORANDUM

TO: Transportation Planning Board
FROM: Lyn Erickson, Plan Development and Coordination Program Director
SUBJECT: Status Report on Select FY 2024 UPWP Projects
DATE: February 21, 2024

This memorandum provides an overview of activities and studies that are underway, focusing on several key themes: equity and access, safety, climate change, and data collection and analysis.

ANALYSIS OF TRANSPORTATION INEQUITIES IN DISADVANTAGED COMMUNITIES

Also known as TPB’s “Equity Deep Dive,” this analysis looks to identify traditionally disadvantaged communities and the mobility and accessibility challenges they may be experiencing today. This analysis stemmed from TPB’s request and staff’s desire to respond to the many questions and needs internal and external stakeholders would pose as it presented, to meet federal Environmental Justice analysis requirements, the long-range impact of the national capital region transportation plan on Equity Emphasis Areas. The purpose of this study will be to think beyond the long-range planning requirements and provide TPB members with equity findings and considerations for today as they identify future projects, programs, and policies as part of their transportation planning activities. The analysis includes an examination of traditionally disadvantaged communities in the region that includes Equity Emphasis Areas, Justice40 areas, and others, and an examination of any unmet mobility and accessibility needs those communities may be experiencing now. With consultant support, staff plan to present the findings of this analysis and its main product, an in-depth interactive web-based tool, by summer 2024.

2024 REGIONAL SAFETY STUDY

To build on the safety analysis completed in 2020-2021, TPB staff is undertaking a study of recent regional crash data (since 2017) to better understand the nature of the region’s safety outcomes. The study will examine: the prevalence and nature of regional fatal and serious injury crashes, as well as their most significant contributing factors; research related to contributing factors not captured on a crash report, such as economic and societal factors; best practices for addressing key safety concerns that have the greatest potential for reducing traffic fatalities and serious injuries; and information from jurisdictions regarding local-level safety challenges. A detailed report will be produced, and the effort will also include an update of the safety strategies recommended in the TPB’s Regional Roadway Safety Policy, [Resolution R3-2021](#), based on findings from the analysis.

TPB staff initiated study activities in January 2024. The study and final report are anticipated to be completed in one year’s time, with interim reports provided during the period of performance. Findings from the study will enhance the regional understanding of roadway performance and inform other potential TPB roadway safety actions and activities.

The study will complement other roadway safety activities planned for the year including a safety forum to hold policy-level discussions centered on the Safe System Approach and its application to the region, exploration of a region-wide “zero deaths” vision and goal to strengthen regional collaboration on safety, and continued engagement with the federal government on proposed regulations to address traffic fatalities and serious injuries.

IMPLEMENTATION CONSIDERATIONS FOR ON-ROAD TRANSPORTATION GREENHOUSE GAS REDUCTION (GHG) STRATEGIES

A study is underway to explore implementation considerations for on-road greenhouse gas (GHG) emissions reduction strategies. This study will build on work conducted under the TPB’s Climate Change Mitigation Study (CCMS) of 2021, which analyzed the GHG emissions reduction potential of transportation scenarios, and the TPB Resolution R18-2022 on the Adoption of On-Road Transportation Greenhouse Gas Reduction Goals and Strategies. The study will focus on the seven strategies that the TPB designated for “further exploration in coordination at the local and state levels” in R18-2022. The final report for the study is expected by summer 2024.

In June 2022, the TPB adopted GHG reduction goals and strategies specific to the on-road transportation sector. The goals and strategies were informed by the CCMS and a questionnaire that was sent to all TPB members in Spring 2022. The TPB adopted GHG reduction strategies that are commensurate with COG’s regional, economy-wide goals: 50% below 2005 levels by 2030 and 80% below 2005 levels by 2050. As noted in TPB Resolution R18-2022, the TPB adopted seven strategies to reduce GHG emissions from on-road transportation (see first list below) and identified seven other strategies that were deemed to need further exploration (see second list below).

On-road GHG Reduction Strategies Adopted as Priorities by the TPB:

- Improve walk/bike access to all TPB identified high-capacity transit stations (i.e., fixed-guideway transit stations).
- Increase walk/bike modes of travel - Complete the TPB’s National Capital Trail Network by 2030.
- Convert private and public sector light-, medium-, and heavy-duty vehicles, and public transit buses to clean fuels, by 2030.
- Deploy a region-wide robust electric vehicle charging network (or refueling stations for alternate fuels).
- Add additional housing units near TPB-identified high-capacity transit stations and in COG’s Regional Activity Centers.
- Reduce travel times on all public transportation bus services.
- Implement transportation system management & operations (TSMO) improvement measures at all eligible locations by 2030.

On-road GHG Reduction Strategies to be Explored in Coordination at Local and State Levels

- Take action to shift growth in jobs and housing from locations currently forecast to locations near TPB-identified high-capacity transit stations and in COG’s Regional Activity Centers to improve the jobs-housing balance locally.
- Make all public bus transportation in the region fare-free by 2030.
- Make all public rail transportation in the region fare-free by 2030.

- Price workplace parking for employees – only in Activity Centers by 2030 and everywhere by 2050
- Convert a higher proportion of daily work trips to telework by 2030 and beyond.
- Charge a new fee per vehicle mile of travel (VMT) by motorized, private, passenger vehicles in addition to the prevailing transportation fees and fuel taxes.
- Charge a “cordon fee” (commuter tax) on motorized vehicle trip for all vehicles entering Activity Centers, by 2030.

The results of the CCMS, which analyzed scenarios containing these strategies, showed that even with all 14 strategies, the region does not have a clear path to achieve the TPB’s 2030 on-road GHG reduction goal and can achieve the 2050 goal only with significant decarbonization of the electric grid, which makes it more imperative to assess the implementation considerations for the strategies that were identified for further exploration. The project team will establish a list of implementation considerations that will be addressed for each strategy that could include relative effectiveness in reducing GHG emissions; cost; equity and impacts on disadvantaged, overburdened, and underserved communities; safety; economic impact; necessary enabling actions, including federal actions; and necessary legislative authority. The TPB Technical Committee will be asked to review the list of strategies for study, which may include additional strategies that were not considered in the CCMS, and the list of implementation considerations that will be assessed for each strategy.

REGIONAL ELECTRIC VEHICLE INFRASTRUCTURE IMPLEMENTATION (REVII) STRATEGY

The Regional Electric Vehicle Infrastructure Implementation (REVII) Strategy is being developed to support state and local governments as they prioritize locations for publicly accessible electric vehicle (EV) infrastructure deployment to support the adoption of light-duty EVs in the region. The strategy is being developed by the TPB’s on-call consultant, ICF, and funded through the UPWP Technical Assistance Program. The project kicked-off in July 2023 and is expected to be completed in late spring 2024.

This project is being undertaken for two reasons. First, both the TPB and the COG Board have passed resolutions supporting regional EV planning. When the TPB adopted greenhouse gas (GHG) emissions reduction goals specific to the on-road transportation sector (50% below 2005 levels by 2030 and 80% below 2005 levels by 2050, commensurate with COG’s regional, economy-wide GHG reduction goals) in June 2022, it also adopted GHG reduction strategies that included increasing the number of EVs in the region and deploying a network of EV charging infrastructure. The TPB’s Climate Change Mitigation Study of 2021 (CCMS) found that, of the strategies analyzed, the highest potential for reducing GHGs from the on-road transportation sector would be shifting to clean fuels, which includes EVs. Additionally, the COG Board adopted a resolution in September 2022 establishing a Regional Electric Vehicle Deployment (REVD) Working Group under COG’s Climate, Energy and Environment Policy Committee (CEEPC), to serve as a forum for members to collaborate and coordinate actions related to deploying EVs and EV infrastructure. Second, through the Bipartisan Infrastructure Law, the federal government has made \$7.5 billion in funding available for EV charging infrastructure, \$5 billion of that is formula funding that is allocated to states, through programs such as the National Electric Vehicle Infrastructure (NEVI) Formula Program and the Charging and Fueling Infrastructure (CFI) Discretionary Grant Program. The REVII Strategy can inform state and local governments in their EV infrastructure planning work as well as inform multi-jurisdiction proposals for funding, such as the one led by COG that several local jurisdictions submitted last year for the CFI Program.

The REVII Strategy will have two components: (1) light-duty EV projections that will be used to calculate the approximate number of EV charging stations needed to support future light-duty EV adoption in the region and (2) the charging station priority location map that will help identify locations to deploy the estimated number of needed charging stations. Jurisdictions should use the REVII Strategy in conjunction with local knowledge to determine the best path forward for deploying EV charging stations. The REVII Strategy is designed to be a planning tool and is not meant to be prescriptive.

Jurisdictions can use the map for any stage of their planning process. Jurisdictions can start their planning process by using the map to identify priority locations generally to help focus EV infrastructure planning efforts. For jurisdictions that have begun EV infrastructure planning, the map can be used to crosscheck against locations that have already been flagged as high interest areas for charging station deployments. The map can also be used in discussions with private sector partners to encourage EV infrastructure installation on private land and to select high-priority parcels for in-depth charging station siting assessments (e.g., checking electrical conduit/infrastructure that exists or needs installed).

The TPB Technical Committee and COG's Regional Electric Vehicle Deployment (REVD) Working Group both received a presentation on the draft results in January and were given the opportunity to provide feedback. The REVII Strategy is expected to be completed in late Spring and will be delivered as a final report and final GIS mapping tool.

TRANSPORTATION RESILIENCE STUDY – PHASE II

The new transportation resilience planning program is well underway, starting with the Phase II Transportation Resilience Study. Together with member jurisdictions and agencies, the TPB is developing a regional Transportation Resilience Improvement Plan (TRIP) as part of the second phase of its transportation resiliency study. This type of comprehensive plan for state or regional transportation resilience, the TRIP, is a major element of the Infrastructure Investment and Jobs Act (IIJA) Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation program (PROTECT). Developing a TRIP can lower the non-federal construction match for projects funding by the PROTECT program from 20% to 13% and integrating that TRIP into the LRTP can reduce the match to 10%. The TRIP is on track to be completed and finalized in June 2024, and the following milestones met towards the completion of this plan are as follows:

- **Regional Transportation Resilience Planning Working Group, initially convened May 2023**
Consisting of transportation resilience planners and stakeholders from member localities and agencies, the working group primarily provides input and feedback on key milestones during the development of the TRIP through a series of quarterly meetings.
- **Regional Transportation Resilience Forum, held October 2023**
This project convened a Resiliency Forum – which included a broader swath of regional participants, seeking to include at least one representative from all member jurisdictions. The goal for the Forum was to build knowledge of climate risks among the jurisdictions and collaborate with them to develop resilience solutions. Held on October 3, 2023, the forum was very successful, drawing over 60 participants from around the region.
- **Risk-Based Vulnerability Assessment, completed January, 2024**
One required element of a TRIP is a vulnerability assessment. The consultant completed a vulnerability assessment of risks posed by natural hazards on generalized transportation assets (phase 1) and regional-specific assets (phase 2) – which was guided by the working

group. The final draft of the vulnerability assessment is currently with the working group for final approval and will be posted on the TPB website once the document is final.

- **Regional Transportation Resilience Mapping Tool, completed December, 2023 | [Mapping Tool Link](#)**

Part of this project was to produce an interactive mapping tool in conjunction with the vulnerability assessment, to live on the TPB ArcGIS website. The tool layers transportation asset, climate, and equity spatial data to depict highly vulnerable assets so agencies can evaluate their individual assets and services to understand how vulnerable they may be in the face of certain natural hazards.

- **TRIP Project Request Guidance Document and Project Submission Form, document completed November, 2023, project collection ongoing with submission deadline February 14, 2024 | [Guidance Document Link](#) | [Submission Form Link](#)**

TPB is soliciting transportation resilience projects to include in the TRIP. Per the PROTECT Program Guidance from the Federal Highway Administration, priority resilience projects included in the TRIP will receive extra evaluation points and will be eligible for a 7% reduction in the non-federal share of project costs for the PROTECT Discretionary Grant Program. If projects are incorporated into the TPB National Capital Region Transportation Plan, they will be eligible for an additional 3% reduction and may receive the maximum 10% reduction in non-Federal share of project costs. Submitted projects will be evaluated for inclusion in the TRIP according to the resilience criteria established in the TRIP Project Request Guidance document, as linked above.

- **Final TRIP document on track to be delivered end of June, 2024**

COORDINATED TRANSIT ON-BOARD DATA COLLECTION

Staff conducted initial activities to conduct a multi-year process to facilitate coordination among the region's public transportation providers to collect transit on-board passenger trip information to ensure that the data collected will provide information needed by these transit agencies and by COG/TPB staff, who use the data to estimate, calibrate, and validate regional travel demand forecasting models. Staff briefed the Regional Public Transportation Committee, the Travel Forecasting Subcommittee, and the TPB Technical Committee on the proposed approach for coordinating transit on board data collection that can be used to support regional travel demand forecasting and travel trends analyses.

REGIONAL TRAVEL SURVEY

TPB's largest data collection effort is the Regional Travel Survey (RTS). This significant undertaking is TPB's biggest data collection effort and historically it has occurred only once every 10 years. The RTS provides critically needed information on the characteristics of travel and characteristics of those persons who are making trips; and this information is necessary to support regional travel demand forecasting activities. After evaluating the state of the practice and benchmarking against other large MPOs, staff recommended that TPB conduct the RTS more frequently so these important data can be more timely and current. During FY 2024, staff has begun to set the stage for implementing this new RTS format by beginning developing a work plan and scope of work that will position the TPB to commence this work in FY 2025.

INTERCITY BUS AND RAIL TRAVEL STUDY

The purpose of the study will be to collect regional information on intercity bus and rail travel to meet federal requirements for metropolitan transportation planning and to improve regional knowledge. This study will build on the staff research conducted in May 2023 and the TPB work session conducted in October 2023. This study is part of the FY 2024 Unified Planning Work Program (UPWP) and will continue into FY 2025.

A consultant or team of consultants will be hired to conduct the work of the study, under the oversight of TPB staff and with input from regional TPB member staff, including the TPB Technical Committee and the TPB Regional Public Transportation Subcommittee who will be involved as this work progresses.

The consultant will expand on previous TPB analysis of intercity bus and rail travel by:

- a) examining both wholly private services, as well as services that are publicly funded and/or operated under public contract (e.g., Virginia Breeze, Bayrunner, etc.);
- b) studying commuter bus (e.g. MTA, Loudoun County Transit, and Omniride.) and commuter rail (e.g., MARC and VRE) providing similar or complementary services to intercity travel providers (e.g., Baltimore – Washington travel, or other travel from points outside the region); and finally,
- c) collecting intercity travel data and information, to include ridership, intercity trips by time of day and day of week, station and stop locations, traveler demographics, traveler origins and destinations (inc. jurisdiction/zip code of residence), traveler trip purpose (e.g., business or tourism), and traveler modes of access. Other details will be determined.

The consultant will prepare a draft and final report on the information collected, as well as a webmap with geographic data. A tentative timeline is for delivery of these materials by the end of calendar year 2024, which will enable incorporation of appropriate information into the Visualize 2050 regional transportation plan.

TRAVEL MONITORING AND TRENDS ANALYSIS

One of the long-time core activities of TPB staff's data and research program is to monitor regional travel and analyze and report on travel trends to inform regional transportation planning. The tools of the trade used for this activity continue to evolve. To enhance its travel monitoring program, staff acquired large datasets of passively collected trip information from several "big data" vendors during the year. Staff is developing use cases and analyses where these data can be applied and evaluated for their effectiveness in supporting regional travel trends research and analyses. These data can help provide additional insights into the nature and characteristics of travel trends in the region. Staff also continued to develop enhanced visualizations and data products and implement new data collection methods focused on obtaining regional travel information on a more frequent and ongoing basis. Finally, staff completed its recommendation for conducting the Regional Travel Survey (RTS) more frequently and began developing a scope of work to commence RTS activities in FY 2025.

REGIONAL ACTIVITY CENTERS UPDATE

Regional Activity Centers are important locations that will accommodate the majority of the region's future growth and play a central role in achieving regional transportation goals and help focus future transportation investments. COG examines and updates the map of the Regional Activity Centers following the approval of a major round of Cooperative Forecasts. The COG Board of Directors approved the most recent major round, the Round 10.0 Cooperative Forecasts. During FY 2024, staff developed a work plan for updating the Regional Activity Centers and this work is being completed under the oversight of COG's Planning Directors and Technical Advisory Committee. This update entails staff applying the criteria used to identify these areas using updated data and developing a new set of Regional Activity Centers that will be identified on a map product. Final COG approval of the updated Regional Activity Centers is anticipated in early FY 2025.

A PEOPLE'S GUIDE TO TRANSPORTATION DECISION-MAKING IN THE NATIONAL CAPITAL REGION

Updated in late 2023 as recommended during the most recent federal certification review, the [People's Guide](#) is designed to assist TPB board and committee members, TPB member jurisdiction staff, and the public understand how, when, and where transportation decisions are made in the region; the TPB's role in coordinating the process; and ways that local residents, businesses, and other members of the community can participate in transportation planning and funding decisions. In addition to the role of the TPB, the guide provides a general overview of the state DOT, transit, and local government planning, funding, and project selection process. Also included is a section on how community members can get involved and frequently asked questions.

The guide is 36 pages, is available as a PDF on the COG/TPB website, and will be available as a printed booklet for TPB board members, committee representatives, TPB Community Leadership Institute participants, and COG/TPB staff. Visit the [Getting Involved & Public Comment](#) page on the COG/TPB website to learn more. The printed booklet will be available by early March 2024.

Share the [PDF](#) or request a copy of the guide by contacting [Rachel Beyerle](#), TPB Transportation Communications Manager.