ITEM 7 – Action

June 16, 2021

Visualize 2045: Approval of the Project Submissions for Inclusion in, and the Scope of Work for, the Air Quality Conformity Analysis for the 2022 Update to Visualize 2045 and The FY 2023-2026 TIP

Action:

Adopt Resolution R19-2021 to approve the project submissions for inclusion in, and the scope of work for, the Air Quality Conformity Analysis for the 2022 Update to Visualize 2045 and the FY 2023-2026 TIP.

Background:

The TPB's long-range transportation plan, Visualize 2045, adopted in 2018 and amended in 2020, must be updated, reviewed, and approved by federal agencies by the end of 2022 along with a new FY 2023-2026 TIP. Given the federal status of the planning area (designated as "non-attainment" of the federal 2015 Ozone Standard), the projects proposed to be included in the constrained element of the updated plan and new TIP must undergo a regional air quality conformity determination analysis.

The board will be briefed on the status of its request for a deadline extension to complete this update (subsequently denied by USDOT) and will receive an overview of the various federally prescribed tasks completed, including assessment of the fiscal constraint of the updated plan, to support commencing the regional air quality conformity analysis.

All elements of the inputs for the air quality conformity analysis have gone through committee and/or formal public review process during the months of April and May. The TPB held two work sessions during April and May to review the proposed updates to the projects.



MEMORANDUM

TO: Transportation Planning Board **FROM:** Kanti Srikanth, TPB Staff Director

SUBJECT: Schedule to Update the Long-Range Transportation Plan, TIP and Conformity

DATE: June 10, 2021

The National Capital Region Transportation Planning Board (TPB) recently sought permission from the U.S. DOT for an extension to the December 2022 deadline for submitting an updated long-range transportation plan. ¹ Unfortunately, the U.S. DOT denied the request. ² This memorandum provides context and additional information on the options and consequences for delaying the planned update of the TPB's long-range transportation plan, Visualize 2045.

BACKGROUND

The TPB adopted an updated long-range transportation plan (LRTP), as required by federal regulations, in 2018. The TPB christened the plan "Visualize 2045" and, in a substantial change with past practice, added an aspirational element to compliment the federally required, financially constrained element. The aspirational element of the plan reflected a unanimously agreed upon set of policy principles to support projects, programs and policies that would significantly improve the performance outcomes of the region's transportation system and help the region meet its mobility and accessibility goals, which were not being met, in the view of the TPB, by the previous plan, which consisted only of a constrained element. The aspirational element of the 2018 plan was intended to reflect the types of transportation and land use projects, programs and polices desired by the TPB, but not required to be in the federally approved plan and subject to federal fiscal constraint and conformity requirements.

Federal metropolitan transportation planning regulations (23 U.S.C. 134 and 135; 49 U.S.C. 5303, and 42 U.S.C. 7410) govern the process and, in most cases, what is included in the plan/products, and requires that the regional LRTP ("Visualize 2045" in this instance) be updated at least once every 4 years (23 CFR 450.324(c)). Additionally, federal metropolitan planning regulations require that, for areas that are not in attainment of federal clean air standards (for specific pollutants that do not include greenhouse gases), the projects in the LRTP be fiscally constrained (23 CFR 450.324(f)(11)) and undergo a regional air quality analysis (40 CFR Parts 51 and 93) to determine that the anticipated emissions (of specific pollutants) conform to the limits (emissions budgets) approved by the U.S. EPA.

¹ Charles Allen et al. to Joseph C. Lawson et al., "Request for Extension of Due Date to Complete Quadrennial Update of MPO LRTP, TIP, and Air Quality Conformity Analysis," May 10, 2021.

² Terry Garcia Crews et al. to Charles Allen, National Capital Region Transportation Planning Board, and Kanti Srikanth, "Request for Extension - Update of LRTP, TIP, and Air Quality Conformity," May 25, 2021.

Accordingly, the TPB began its quadrennial update of Visualize 2045 in December 2020, and took action to approve a schedule (Attachment 1) to accommodate the federal review of the plan update, including the revised air quality conformity analysis, to be federally approved by the mandated four-year deadline (December 2022).

TPB DISCUSSIONS ABOUT DELAYING THE UPDATE OF VISUALIZE 2045

Following the published schedule to update Visualize 2045, the TPB solicited, from implementing agencies, updates to projects, programs and policies to be included in the constrained element of Visualize 2045, which, in turn, would be included in the regional air quality conformity analysis. The TPB issued a detailed inputs solicitation document with a summary of all of the TPB's policy priorities and an updated project description form for member agencies to complete (https://visualize2045.org/requirements/). The federal process dictates the inputs that are to be included in the constrained element of the plan (23 CFR 450.324). To develop the 2022 update of the LRTP, TPB member agencies (highway and transit) submitted updates to the 2020 amended LRTP (Visualize 2045) in February 2021, adhering to the federal requirements. All of the proposed updates, together with projects that were previously included in the 2018 LRTP and 2020 amendment, were released for a 30-day public comment period on April 2, 2021. The TPB held two work sessions (April 21 and May 19) to review the proposed updates and discuss the comments received. As part of the TPB's review and discussion of the updates during the April 21, 2021 meeting, the board decided to write to the FHWA and FTA requesting a six-month extension to the December 2022 due date to have an approved update of Visualize 2045 (Attachment 2). The primary reason for the extension request was to review the 400+ project inputs and to consider making changes to the projects, programs and polices proposed for the update. While the TPB recognizes that there are no federal climate change mitigation goals or greenhouse gas emissions limits for LRTPs, greenhouse gas reductions are one of the TPB's priority focus areas.

FEDERAL RESPONSE TO EXTENSION REQUEST

The D.C. Division office of the FHWA and Region 3 office of the FTA, which oversee the metropolitan planning process of the TPB, responded to the May 10, 2021 TPB's Request for "Extension - Update of LRTP, TIP, and Air Quality Conformity" **without granting an extension** (Attachment 3). The FHWA and FTA response noted:

The TPB should continue its statutorily required planning efforts on the LRTP and associated conformity efforts to not risk lapse. Should the Washington area miss an applicable deadline for its TIP or LRTP conformity determination, (42 U.S.C. 7506(c)(9),23 CFR 450.326(o) and 23 CFR 450.324(m)), as a nonattainment and maintenance area, a 12-month conformity lapse grace period will be implemented. During the conformity lapse grace period, only projects from the existing TIP and state transportation improvement program (STIP) can be approved, and the existing TIP/STIP could not be updated or amended until the LRTP is updated and conformity demonstrated. This could result in deferred funding for new local transportation priorities until the new LRTP is adopted.

CONSEQUENCE OF MISSING PLAN UPDATE DEADLINE

The work activity currently underway to update Visualize 2045 includes three distinct yet interrelated elements. These are: (1) the long-range transportation plan; (2) the transportation improvement program (TIP) and (3) regional air quality conformity determination of the updated plan and TIP. While the update deadline for the three documents could all be different, in this case all three documents share the same four-year update deadline, of December 2022. Consequences to transportation planning and programming due to failure to meet this update deadline is different depending on the document and will result in the lapse of the specific document (Plan lapse, TIP lapse, Conformity lapse). The impacts of such a lapse are governed by different federal regulations (42 U.S.C. 7506(c)(9), 23 CFR 450.326(o) and 23 CFR 450.324(m), etc.). A conformity lapse is the most consequential since it limits what actions can be taken on a plan and TIP even if those documents have not lapsed.

Federal regulations provide a one-year grace period for MPOs whose conformity determination has lapsed, for the MPO to have their conformity determination submitted and approved. Transportation agencies (highway and transit) will face considerable restrictions even during the conformity grace period as soon as the approval update deadline passes. A substantive consequence of entering a "conformity lapse grace period" is that for all transit and highway projects that do not have a grant agreement in place or are not in the federal information management system (in other words, projects where federal funding has not yet been "obligated"), federal funding could be impacted. Specifically, an inability to amend the TPB's TIP, something that the TPB's member agencies request regularly on a weekly or monthly basis, would mean an inability to receive federally appropriated and obligated funds for highway and transit projects for a variety of activities, including state of good repair and capital construction. Additionally, having the region's LRTP lapse while in a conformity grace period would restrict the federal agency's ability to finalize findings/approval of project-level environmental review documents as well as getting into full federal funding grant agreements. Each TPB member agency would have to individually examine their capital programs and budgets to determine the impact of having the Plan, TIP or conformity lapse.

OPTIONS FOR A CLIMATE-FOCUSED, LONG-RANGE TRANSPORTATION PLAN

Given the widespread disruption to the flow of federal funds and federal approvals to ongoing and planned highway and transit projects, a delay in updating Visualize 2045 could be very costly to the region. TPB would be best served by adhering to the Visualize 2045 update schedule that it adopted and published in December 2020. While the TPB member agencies have been working for the past 18 months on developing the updates that meet all federal requirements, it is important to note that it has taken many years of policy and programming decision at local, sub-regional and state levels to prepare the projects to meet the federal requirements and be added to the long-range transportation plan

TPB's action to approve the current project submissions to begin the conformity analysis enroute to adopting an updated Plan and TIP next year (June 2022) would not preclude the TPB from pursuing other efforts to effect changes in the projects, programs and polices reflected in the constrained element of its long-range plan, that would better support the region's greenhouse gas reduction goals, in future plan updates or amendments.

The TPB recently (2017) concluded an extensive, collaborative scenario analysis which examined 10 alternative long-range plan scenarios that were constructed to provide a substantive improvement in the performance outcomes of the region's transportation system. These 10 scenarios were examined using a wide range of performance metrics reflecting the many policy priorities the TPB has adopted, including greenhouse gas reductions. Five of these scenarios were adopted as the TPB's Aspirational Initiatives and made part of the unconstrained long-range plan. TPB member jurisdictions have worked to secure the funding and policy approvals needed for projects that advance the Aspirational Initiatives and thus have been able to move the projects from the unconstrained to the constrained element of the Visualize 2045. A process similar to this recent undertaking appears to be a promising option for the TPB to consider, which would examine a scenario that is focused on climate change and informed by the findings of the TPB's ongoing Climate Change Mitigation Study.



Plan and TIP Update Schedule

2020	12/16/20	The TPB will be asked to approve the Technical Input Solicitation document to initiate the Call for Projects.					
	2/12/21	Project inputs for the LRTP and Air Quality Conformity (AQC) analysis due to TPB staff.					
	3/5/21, 4/2/21	The TPB Technical Committee will review the conformity project inputs table in March and the draft inputs to the Plan and the draft AQC scope of work in April.					
	4/2/21- 5/3/21	Public comment period on inputs to the Plan/AQC analysis, and AQC scope of work. MWAQC TAC will review this information during the April meeting.					
	4/21/2021	TPB will receive a briefing on the draft inputs to the Plan/AQC analysis and the draft AQC scope of work.					
	5/19/21	The TPB will receive a summary of the public comments on the draft inputs to the Plan and AQC analysis. The TPB and the agencies sponsoring the projects will have the opportunity discuss and advise staff on responses.					
	6/16/21	The TPB will review responses to comments and updates to inputs to the Plan and scope of work for the AQC analysis. The TPB will be asked to approve the inputs and scope, authorizing staff to begin analysis.					
	3/11/22	Transportation Improvement Program (TIP) inputs due for the FY 2023-2026 TIP					
	3/11/22 4/1/22	Transportation Improvement Program (TIP) inputs due for the FY 2023-2026 TIP The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP.					
		The TPB Technical Committee will review the draft results of AQC analysis for the updated					
2022	4/1/22 -	The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP. Public comment period on the results of AQC analysis Determination for the updated Plan					
2022	4/1/22 4/1/22 - 5/1/22	The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP. Public comment period on the results of AQC analysis Determination for the updated Plan and FY 2023-2026 TIP. MWAQC and MWAQC TAC will review the draft results of the AQC analysis during their					
2022	4/1/22 - 4/1/22 - 5/1/22 4/2022	The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP. Public comment period on the results of AQC analysis Determination for the updated Plan and FY 2023-2026 TIP. MWAQC and MWAQC TAC will review the draft results of the AQC analysis during their meetings.					

May 10, 2021

Mr. Christopher Lawson Division Administrator Federal Highway Administration 1200 New Jersey Ave., SE Washington, DC 20590 Ms. Terry Garcia Crews Region 3 Administrator Federal Transit Administration 1835 Market Street, Suite 1910 Philadelphia, PA 19103

Re: Request for extension of due date to complete quadrennial update of MPO LRTP, TIP, and Air Quality Conformity analysis.

Dear Administrator Lawson and Administrator Crews:

We are writing on behalf of the National Capital Region Transportation Planning Board (TPB), the metropolitan planning organization (MPO) for the metropolitan Washington area. The TPB thanks you and your offices for the assistance provided to the TPB in conducting the federally mandated metropolitan planning process, particularly during the trying times of the COVID-19 pandemic.

As you are aware, the nation's MPOs serve a critical role in the stewardship of the country's transportation network — ensuring a state of good repair as well as equitable and effective mobility and accessibility to support various socio-economic and environmental goals. In addition to the federal planning factors, the TPB has adopted, over the past two decades, a set of policy priorities to inform and guide its long-range transportation plan (LRTP) and transportation improvement program (TIP). Last year, reflecting the national reckoning on race-based inequities and the latest findings of the grave threat posed by climate change, the TPB reaffirmed equity and climate change as priority policy objectives.

In July 2020, the TPB adopted a resolution stating that equity, as a foundational principle, will be woven throughout the TPB's analyses, operations, procurement, programs, and priorities to ensure a more prosperous, accessible, livable, and sustainable future for all residents. Along with our staff, we commit that our work will advance equity by considering it in every debate we have and every decision we make as the region's MPO.

Similarly, as part of its commitment to combatting climate change, the TPB adopted a resolution in October 2020 affirming the region's interim climate change mitigation goal of reducing greenhouse gas (GHG) emissions by 50% compared to 2005 levels, by 2030, and becoming a Climate Ready Region. The TPB has begun a technical analysis to further explore specific actions within the transportation sector that previous work had identified to have the greatest potential to reduce greenhouse gases. Using a series of scenarios, the analysis will specify sets of GHG reduction strategies and estimate what it would take (i.e., the levels of implementation and associated outcomes) to achieve the region's GHG reduction goals and be a climate ready region by 2030. The TPB believes this analysis will help its member jurisdictions prioritize their transportation investments and project selections for inclusion in the LRTP and TIP.

The TPB faces a December 13, 2022 deadline to update its LRTP, TIP, and the associated regional air quality conformity analysis. The TPB believes it would need more time than in the past to receive the results of its climate change technical analysis and re-examine the projects in its current LRTP,

Mr. Christopher Lawson; Ms. Terry Garcia Crews May 10, 2021

TIP, and conformity analysis. As the TPB undertakes this substantive re-examination of its LRTP and TIP, we are concerned that a delay in meeting the regulatory requirements and deadlines could potentially lead to project approval and funding delays, among other challenges.

Therefore, we are requesting that the Department of Transportation provide much needed regulatory relief by means of granting a six-month extension of the date by which to receive the approval of our updated LRTP, TIP, and air quality conformity analysis.

The TPB believes that it is very important for its LRTP and TIP to be fully aligned with the President's vision and urgency to address climate change. At the signing the Tackling the Climate Crisis at Home and Abroad executive order (No. 14008) on January 27, 2021, President Biden called on the nation to "confront the existential threat of climate change." The TPB also recognizes the President and the U.S. Department of Transportation intend to make climate change and equity considerations central elements of its programs when it proposed the American Jobs Plan.

Having the additional time to meet federal metropolitan planning requirements and the deadline will provide us with an opportunity to shape even more forward-looking plans aligned with our priorities and allow us better to meet the call for action issued by the President. Secretary Buttigieg has recognized the importance of proactively focusing on climate change when he said, "Every dollar we spend rebuilding from a climate-change disaster is a dollar we could have spent building a more competitive, modern, and resilient transportation system that produces significantly lower emissions." TPB is committed to helping our member jurisdictions build that modern, resilient transportation system, and this additional six months will allow us the time we need to get on the right track.

We trust you will find the above request timely and reasonable and anticipate your positive response. Please contact Kanti Srikanth, TPB Director at (202) 962-3257 or ksrikanth@mwcog.org if you have any questions. Thank you for your consideration.

Sincerely.

Charles Allen

Chair

District of Columbia

Pamela Sebesky Vice Chair

City of Manassas

Reuben Collins Vice Chair Charles County

cc: Ms. Sandra Jackson, FHWA, Washington, D.C.

Mr. Daniel Koenig, FTA, Washington, D.C.

ATTACHMENT 3



U.S. Department of Transportation

Federal Transit Administration Region III 1835 Market Street, Suite 1910 Philadelphia, PA 19103 215-656-7100 215-656-7260 (fax) Federal Highway Administration DC Division 1200 New Jersey Avenue, SE Washington, DC 20590 202-493-7020

May 25, 2021

The Honorable Charles Allen, Chairman National Capital Region Transportation Planning Board c/o, Mr. Kanti Srikanth, Director Department of Transportation Planning Metropolitan Washington Council of Governments 777 North Capital Street, NW, Suite 300 Washington, D.C. 20002-4201

Re: Request for Extension - Update of LRTP, TIP, and Air Quality Conformity

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) are responding to the Transportation Planning Board's (TPB), letter dated May 13, 2021. As the metropolitan planning organization (MPO) for the metropolitan Washington area, TPB is requesting a six-month extension of the date by which to receive the approval of its updated long-range transportation plan (LRTP), transportation improvement program (TIP), and air quality conformity analysis. As you're aware, an MPO shall prepare and update its LRTP every 4 years. For MPOs that have nonattainment and maintenance areas, with respect to the Clean Air Act (CAA), they are also required to comply with the Transportation Conformity Rule found in Title 40 of the Code of Federal Regulations (40 CFR Parts 51 and 93).

The current LRTP and TIP do not lapse until December of 2022, so it is premature for FHWA and FTA to grant an extension. The TPB should continue its statutorily required planning efforts on the LRTP and associated conformity efforts to not risk lapse. Should the Washington area miss an applicable deadline for its TIP or LRTP conformity determination (42 U.S.C. 7506(c)(9), 23 CFR 450.326(o) and 23 CFR 450.324(m)), as a nonattainment and maintenance area, a 12-month conformity lapse grace period will be implemented. During the conformity lapse grace period, only projects from the existing TIP and state transportation improvement program (STIP) can be approved, and the existing TIP/STIP could not be updated or amended until the LRTP is updated and conformity demonstrated. This could result in deferred funding for new local transportation priorities until the new LRTP is adopted.

Any questions concerning this request should be directed to Sandra Jackson, Community Planner, of the FHWA District of Columbia Division, at (202) 493-7031 or Daniel Koenig, Community Planner, of the DC Metro Office of FTA Region 3, at (202) 366-8224.

Sincerely,

Terry Garcia Crews Regional Administrator Federal Transit Administration Joseph C. Lawson
DC Division Administrator
Federal Highway Administration

cc: Kwame Arhin, FHWA, MD Ivan Rucker, FHWA, VA



MEMORANDUM

TO: Transportation Planning Board

FROM: Eric Randall, TPB Transportation Engineer **SUBJECT:** Preliminary Visualize 2045 Financial Analysis

DATE: June 10, 2021

This memorandum provides additional information on the financial analysis being conducted for the Visualize 2045 (2022) long range transportation plan.

FEDERAL REQUIREMENT

Since 1991, fiscal constraint has been a key component of the statewide and metropolitan transportation planning processes required by federal surface transportation regulations. Fiscal constraint means that a Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program (STIP) include sufficient financial information to demonstrate that the projects in the MTP, TIP, and STIP can be implemented using committed, available, or reasonably available Federal, State, local, and private revenues, with the assurance that the federally supported transportation system is being adequately operated and maintained. Requirements for the financial plan component of metropolitan long-range transportation plans are found in the joint planning document: Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning; Final Rule (May 2016). In addition, there is much additional federal guidance that has been provided over time as well, see: Federal Highway Policy & Guidance Center > Planning > Fiscal Constraint and Financial Planning

In addition to the federal transportation planning requirements, the Environmental Protection Agency's (EPA's) air quality conformity regulations require that metropolitan transportation plans and TIPs must be fiscally constrained in order to be found in conformity.

VISUALIZE 2045 (2018) FINANCIAL PLAN

Consistent with federal planning requirements the TPB conducts a "major" update of the long range plan every four years. Visualize 2045 (2018) is the most recent long-range transportation plan for the National Capital Region and it included a financial analysis of the plan and program.

The 2018 financial plan demonstrated that the regional long-range plan, covering the period from 2019 through 2045, was financially constrained, with forecast revenues and expenditures equivalent at \$291 billion. The plan was fiscally realistic, balancing all proposed new project investments and system maintenance and operating costs with reasonable revenue expectations. The plan demonstrated that the forecast revenues reasonably expected to be available covered the estimated costs of expanding and adequately maintaining and operating the highway and transit system in the region.

The financial plan for Visualize 2045 (2018) is available on the plan website, as Appendix A. <u>Visualize 2045 (2018)</u>: A <u>Long-Range Transportation Plan for the National Capital Region</u>

VISUALIZE 2045 (2022) FINANCIAL ANALYSIS METHODOLOGY

The Visualize 2045 (2022) analysis is using the framework of previous analyses. The 2022 financial analysis covers the period 2023 to 2045 (twenty-three years). For the near-term years, agencies use revenue and expenditure budgets from Capital Improvement Programs (CIPs), the approved TIP and other approved budget documents to make financial projections. For long-term years, revenues are estimated from extrapolation of past trends as well as assumptions about future increases (beyond current legislation and appropriations) while expenditures are developed from project costs in the Project InfoTrack database as well as extrapolated costs for maintenance and operations. Estimated inflation and growth rates are applied to convert estimates of revenues and expenditures to year of expenditure (YOE) dollars.

Work on the Visualize 2045 financial analysis began in 2020 with inputs provided by the three State DOTs and WMATA, followed by the collection of inputs from local jurisdictions and agencies in early 2021. At the same time, projects submitted and reviewed as part of the regional project technical inputs solicitation were reviewed. Projected revenues, overall expenditures, and individual project costs are being reconciled to demonstrate that financial constraint is achieved.

NEXT STEPS

The financial analysis will be refined over the remainder of this year. A draft of the financial plan (Appendix A of the Visualize 2045 document) will be prepared. The financial plan will be reviewed in tandem with other elements of the long-range plan. It is anticipated that the current draft numbers will be updated. In addition, further analysis will be conducted, including an assessment of funding for the TPB's adopted Aspirational Initiatives and a categorization of expenditures against the performance areas of the federal-required performance based planning and programming (PBPP) process (e.g., expenditures on highway safety, pavement condition, transit asset condition, etc.).

An additional to the Visualize 2045 long range plan, financial information will be also included in the FY 2023-2026 Transportation Improvement Program (TIP) documentation as required.

Project Submissions and Scope of Work for the Air **Quality Conformity Analysis**

Kanti Srikanth TPB Staff Director

Eric Randall TPB Transportation Engineer

Transportation Planning Board June 16, 2021



transportation plan **Capital Region**



WHAT IS BEING APPROVED?

Updated inputs to the regional air quality conformity analysis for an updated long range transportation plan – Visualize 2045

- 1. Cooperative Forecast Spatial distribution of Population, Employment and No. of Household (2021 thru 2045)
- 2. Scope of Work for Regional Air Quality Conformity Analysis
- Highway and Transit projects represented in the regional air quality analysis modeling (not all projects)
- 4. Preliminary Financial Analysis of projects and programs in Visualize 2045 (2021 thru 2045)



1. Cooperative Forecast

1. Federal Requirements:

23 CFR § 450.324 (e): The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update.

2. Source of data used by the TPB Process:

COG's Planning Director's Technical Advisory Committee develops the cooperative forecasts for the region by reconciling jurisdictional forecasts with regional econometric projections.

(TPB Technical Committee – March 2021)

Excerpts from: 23 CFR § 450.324 - Development and content of the metropolitan transportation plan



1. Updated Cooperative Forecast

- Round 9.2; represents a technical update to the Round 9.0 forecast
- Long-range forecasts: do not account for short term variations
- Effects of COVID-19 on the timing and distribution of future growth are not accounted for in this technical update



The next major round, Round 10, will be prepared in the future and will consider results from the 2020 Census as well as other applicable global, national, and regional demographic and market trends



2. Scope of Work: Air Quality Conformity Analysis

Pollutants	Ozone Season VOC and NOx
Emissions Model	MOVES2014b
Conformity Test	Budget Test: Using mobile emissions budgets most recently approved by EPA: 2008 Ozone NAAQS Maintenance Plan mobile budgets found adequate by EPA in August 2018.
Vehicle Fleet Data	July 2020 (DC) and December 2020 (MD & VA) vehicle registration data
Geography	8-hour ozone non-attainment area
Network Inputs	Regionally significant projects
Land Activity	Cooperative Forecasts Round 9.2
HOV/HOT	Restrictions, such as Truck Prohibitions, Reversible lanes, etc. as provided by operating agencies VA: I-95, I-395, and I-495 are all HOT3+; I-66 inside the Beltway will convert from HOT2+ to HOT3+ when I-66 outside the Beltway opens as HOT3+; the Dulles Toll Road will convert from HOV2+ to HOV3+ in 2023; all other HOV facilities will be HOV2+ through 2045 MD: HOV facility on US 50 will remain HOV2+ through 2045; HOV facility on I-270 will convert from HOV2+ to HOT3+ when an additional HOT lane is added; planned additional Capital Beltway express toll lanes will be HOT3+ when added
Roadway Restrictions	Roadway restrictions, such as truck prohibitions, are reflected in the travel model network using information supplied by the Departments of Transportation
Transit Constraint	NO Metrorail "capacity constraint" (removed with March 2018 passage of annual funding for WMATA agreement)
Analysis Years	2021 and/or 2023 or 2024, 2025, 2030, 2040, and 2045
Modeled Area	6,800 square mile area with 3,722 Transportation Analysis Zones (TAZs)
Travel Demand Model	Gen2/Version 2.4 or latest



3. Projects Included in Air Quality Analysis

- As submitted by TPB member agencies (Highway and Transit)
- Reviewed by public and the TPB (April and May work sessions)
- 2018 Plan Projects and 2020 Amendment projects
- Changes to existing projects
- New Projects

						(highway)						
								Fac	ility	/ Lanes		
PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	То	Fr	То	Fr	То	Completion Date
3476 CE1462	206	MS2F	MO886 1	Widen	MD 28 Norbeck Road	MD 97	MD 182	2	2	2	2-4	2045
3476 CE1462	925	NRS	MO8861	Reconstruct	MD 28 Norbeck Road	MD 182	Norwood Road	2	2	4	4	2045
3476 CE1462	926	NRS	MO8861	Reconstruct	MD 198	Norwood Road	MD 650	2	2	2	2	2045
3476 CE1462	927	NRS	MO8861	Reconstruct	MD 198	MD 650	Old Columbia Pike	2	2	2	2	2045
3476 CE1462	928	NRS	MO8861	Reconstruct	MD 198	Old Columbia Pike	US 29A	2	2	4	4	2045
3476 CE1462	929	NRS	MO8861	Reconstruct	MD 198	US 29A	195	2	2	4	4	2045
3106	137	MP12C	MO746 1	Construct	MD 97 Brookeville Bypass	Gold Mine Road	North of Brookville	0	2	0	2	2021
CE2618	931	NRS	M02241	Widen Reconstruct	MD 97	MD 390	MD 192 / Forest Glen Road	2	2	6/7	7/8 6/7	2025 2030
CE1211	392	NRS	MO852 1	Upgrade	MD 97 Georgia Avenue Interchange	at MD 28 Norbeck Road		2	2	6	6	2035
	135	NRS	MO854 1	Upgrade	MD 97 Georgia Avenue Interchange	at Randolph Road		2	2	6	6	2018
CE1203	115	MS32		Widen Reconstruct	MD 117 Clopper Road	1270	Metropolitan Grove Road	23	23	2/4- 4	4	2030
CE1203	921	NRS		Reconstruct	MD 117 Clopper Road	Metropolitan Grove Road	West of Game Preserve Road	3	3	2/ 4 2	2/ 4 3	2030 2035
3057 CE1206	118	MS6B	MO632	Widen	MD 124 Woodfield Road	Midcounty Highway	South of Airpark Drive	3	3	2	6	2035
3057 CE1206	1	MS6D	MO632 3	Widen	MD 124 Woodfield Road	North of Fieldcrest Road	Warfield Road	3	3	2	6	2035
CE2253	356	MS35	PG6911	Widen	MD 197 Collington Road	MD 450	Kenhill Drive	2	2	2	4	2025 2030

2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

TPB June 16, 2021 Meeting material packet Item #7



NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045 Pink shading indicates techincal corrections since the beginning of the comment period

DRAFT 5/19/2021

4. Preliminary Financial Analysis



Requirements for the Visualize 2045 Financial Analysis

- Meet federal requirements for MPO planning and air quality conformity (FHWA, FTA, EPA)
- Demonstrate that the forecast revenues are reasonably expected to be available to implement the long-range transportation plan through 2045
- Demonstrate the region's commitment to maintaining a State of Good Repair (SGR) by fully funding projects required to keep highways and public transportation systems in good repair
- Provide for operations and maintenance of the existing transportation system
- Provide for focused capacity expansion to address forecasted growth in the region's population and economy

The financial plan is Appendix A of Visualize 2045

Transportation Revenues

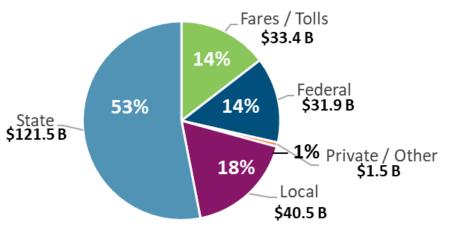
- Where does funding come from?
 - Federal program funds
 - Highway: National Highway Performance Program (NHPP), Highway Bridge Program (HBP), Highway Safety Improvement Program (HSIP), State Planning and Research (SPR), Surface Transportation Program, CMAQ, etc.
 - Transit: Operating Assistance, State of Good Repair, WMATA PRIIA, and competitive grants: New Starts, No-Low Emission Buses, etc.
 - State and Regional funds
 - VDOT's SmartScale, Northern Virginia Transportation Authority funding, WMATA Compact, etc.
 - Most transportation funding is not fungible, it comes from specific sources with goals and constraints on use



2022 Preliminary Analysis – Revenues

Visualize 2045 Revenues (2023 – 2045)

\$ Billions Year of Expenditure

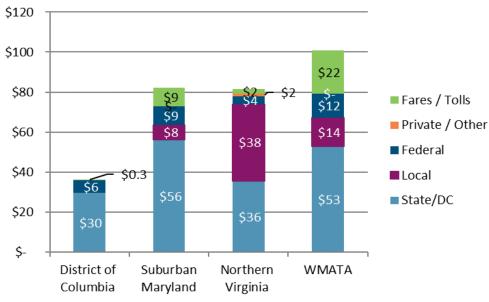


Total: \$228.9 Billion

2018 Analysis (2019-2045) \$291.1 Billion

visualize 2045

Revenues by State / WMATA (2023 – 2045)



- Period of analysis: 2023 2045 (twenty-three years)
- All revenue and cost estimates are in year of expenditure (YOE) dollars

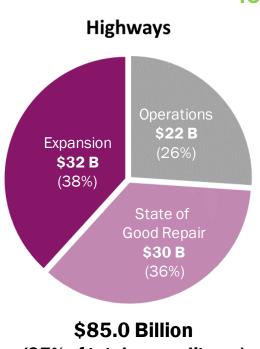
Projects, Plans, and Programs

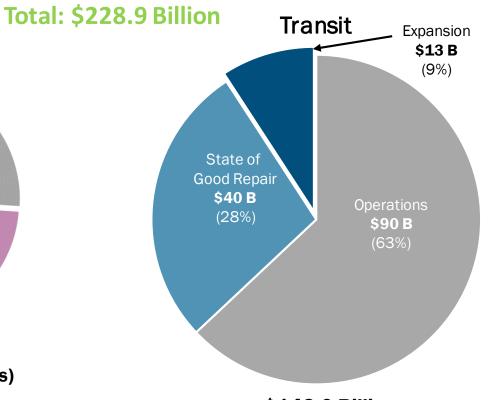
- Where does regional transportation funding go?
 - Transit Operations & Maintenance (O&M), followed by Transit State of Good Repair (SGR) and then Highway projects
 - WMATA is our region's biggest project: 45% of all funds go to support Metrorail, Metrobus, MetroAccess
 - O&M and SGR for other transit services: local bus and commuter rail
 - Highway SGR and Highway and Transit capacity expansion projects in the TIP and Plan that have been planned and developed over years
 - In 2018, it was estimated that about 45% of capital expansion funding supported the TPB's adopted Aspirational Initiatives
 - State DOTs and MPOs must report on progress towards Performance Based Planning and Programming (PBPP) targets: safety, pavement condition, bridge condition, etc., including "linking investment priorities to those performance targets"



2022 Preliminary Analysis – Expenditures

Numbers will change





(37% of total expenditures)

\$143.0 Billion (62% of total expenditures)

Bike & Pedestrian Projects \$0.8 Billion 0.4% of all expenditures (not included above)

WMATA

\$104 Billion (included in Transit) 45% of all expenditures



Role of the TPB

Provide perspective:

- Operating and keeping our current transportation system in a State of Good Repair is our #1 priority (~84% of funding)
- Expansion project planning and development is a drawn-out process,
 with many projects having been planned for years or even decades
- Most funding is directed through federal, state, regional, and local processes and priorities

TPB's priorities and interests are laid out in the Vision (1998), the Regional Transportation Priorities Plan (2014), and most recently the Aspirational Initiatives (2018)

- Keep advancing planning and engineering for these projects so that they keep moving forward every day
- Use our prepared videos, infographics, and other materials to build support for current projects and advance new projects



Proposed Action:

Adopt Resolution R19-2021 to approve the project submissions for inclusion in, and the scope of work for, the Air Quality Conformity Analysis for the 2022 Update to Visualize 2045 and the FY 2023-2026 TIP.

NOW, THEREFORE, BE IT RESOLVED THAT: the National Capital Region Transportation Planning Board approves:

Part A

- The Air Quality Conformity Analysis Scope of Work, as described in Attachment 1; and
- The project submissions of the TPB member agencies, listed in tables in Attachment 2, for inclusion in the Air Quality Conformity Analysis for the proposed FY 2023 2026 TIP and update to the Visualize 2045 Plan; and
- 3. The draft Round 9.2 Cooperative Forecasts of employment, population and households developed by COG's Planning Director's Technical Advisory Committee for use in the Air Quality Conformity Analysis, as described in Attachment 3.



Substitute Resolution:

NOW, THEREFORE, BE IT FURTHER RESOLVED THAT: the National Capital Region Transportation Planning Board will initiate a full update to the Long-Range Transportation Plan upon completion and adoption of the Visualize 2045 Plan with a target completion date of 2024, and that—

Part B

- The development of such plan will include the consideration of multiple build scenarios and an analysis of each scenario's impact on the region's adopted goals and targets, including reduction of greenhouse gas emissions;
- 2. The development of such plan will be based on the concept of 'zero-based budgeting' where all projects, including those currently included in the Plan, must be resubmitted for consideration in such Plan, provided that projects currently under construction or currently funded with federal, state, regional, local or private funds shall be exempt from such requirement; and
- 3. TPB will use the above scenario analysis to inform the development of the 2024 and future updates of the Long-Range Transportation Plan.



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Summary of Draft Round 9.2 Forecasts

COG / TPB Planning Area (Thousands)

			2020 to 2045		
	2020	2045	<u>Number</u>	Percent	
Employment	3,364.0	4,244.4	880.5	26%	
Population	5,694.2	7,006.2	1,312.0	23%	
Households	2,130.2	2,676.4	546.1	26%	

