

VISUALIZE 2050

National Capital Region Transportation Plan

Agenda Item 4

OVERVIEW OF PUBLIC COMMENT PERIOD MATERIALS

Visualize 2050, FY 2026-2029 TIP, and
Air Quality Conformity Analysis Report

Cristina Finch
TPB Transportation Planner

Planning Director's Technical Advisory Committee
November 21, 2025



National Capital Region
Transportation Planning Board

Overview

- Providing Comments
- National Capital Region Transportation Plan - Visualize 2050
 - Land Use and Cooperative Forecast Output in Visualize 2050
- FY 2026-2029 Transportation Improvement Program (TIP)
- Air Quality Conformity Analysis Report



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Providing Comments

- Comment Period: October 23–November 21, 2025
- TIP Forum: November 13, 2025
- [Visualize2050.org](https://visualize2050.org): The hub for plan information and public comment
 - **Home, The Plan, Plan Resources & Get Involved** pages
- Four ways to submit comments:
 1. Online form at visualize2050.org
 2. Email: tpbcomment@mwkog.org
 3. Call: (202) 962-3774
 4. Mail: TPB Chair, 777 N. Capitol Street NE, Suite 300
Washington, DC 20002



#Visualize2050

Visualize 2050 Content

Visualize 2050 Executive Summary

- 12-page PDF/flipbook
- Captures plan highlights: growth, mode share and performance today/future, finance, future challenges

Visualize 2050 Full Plan

- 108-page PDF/flipbook
- Transportation vision, values, performance targets
- Summary of region's current (2025) and future (2050) multimodal transportation system planned investments and anticipated performance, remaining challenges

Supplemental Information

- 11 Maps: existing/future transportation systems, system performance, land use and activity, environmental, EV charger siting
- High-Capacity Transit - Lists of current and future stations, systems, service providers
- Project Tracker database

The screenshot shows the Visualize 2050 website interface. At the top, there are navigation tabs: ABOUT, PLAN DEVELOPMENT, THE PLAN (highlighted), PLAN RESOURCES, and GET INVOLVED. Below the tabs are sub-tabs: Executive Summary, Draft Plan, and Chapters. A search icon is in the top right.

The main content area is divided into several sections:

- DRAFT PLAN - FULL DOCUMENT:** Includes a description of the plan and a 'DOWNLOAD PDF' button.
- DRAFT PLAN CHAPTERS:** A table of contents listing chapters 1 through 7, each with a green checkmark indicating availability.
- FUTURE TRANSPORTATION:** A grid of interactive cards for various transportation topics, each with a 'VIEW THE MAP' or 'VIEW THE DATABASE' link.

Chapter	Status
CHAPTER 1: INTRODUCTION	✓
CHAPTER 2: TRANSPORTATION SYSTEM TODAY	✓
CHAPTER 3: CURRENT TRANSPORTATION SYSTEM PERFORMANCE	✓
CHAPTER 4: SOCIETAL TOPICS	✓
CHAPTER 5: FINANCIAL PLAN FOR FUTURE INVESTMENTS	✓
CHAPTER 6: 2050 SYSTEM AND PERFORMANCE	✓
CHAPTER 7: PLANNING TOGETHER FOR FURTHER PROGRESS	✓

Chapter 1: Introduction

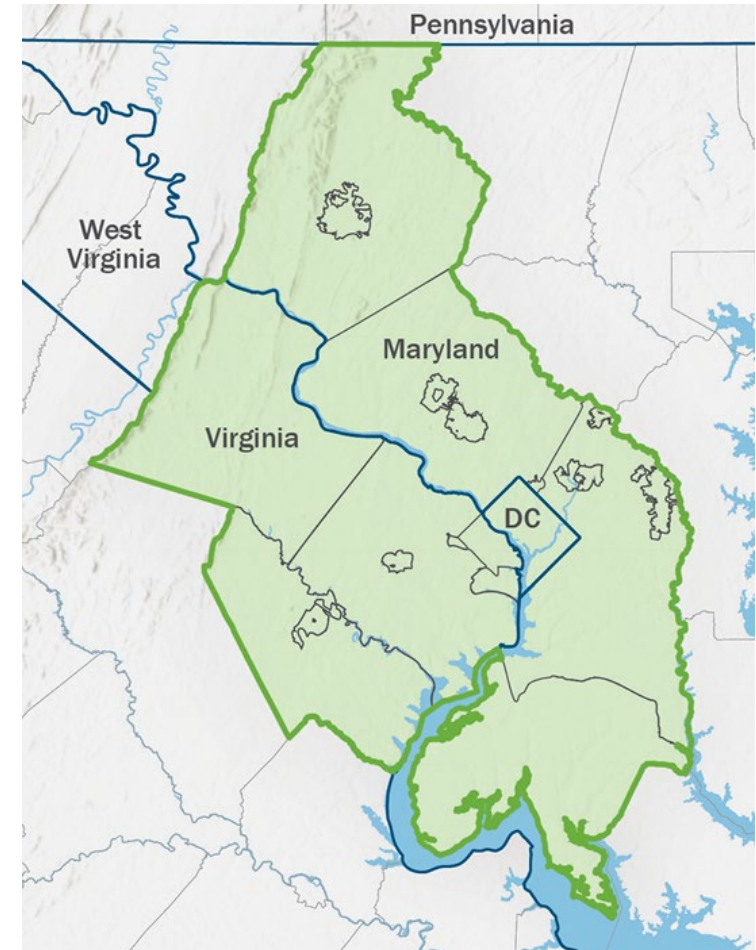
The National Capital Region today:

- 5.9 million people
- 3.3 million employees
- 3,500 sq mi. and 22 local jurisdictions

Visualize 2050's goals align with state and federal goals:

- District of Columbia's *moveDC*
- Maryland's *The Playbook*
- Virginia's *Vtrans*
- Moving Ahead for Progress in the 21st Century Act (MAP-21)

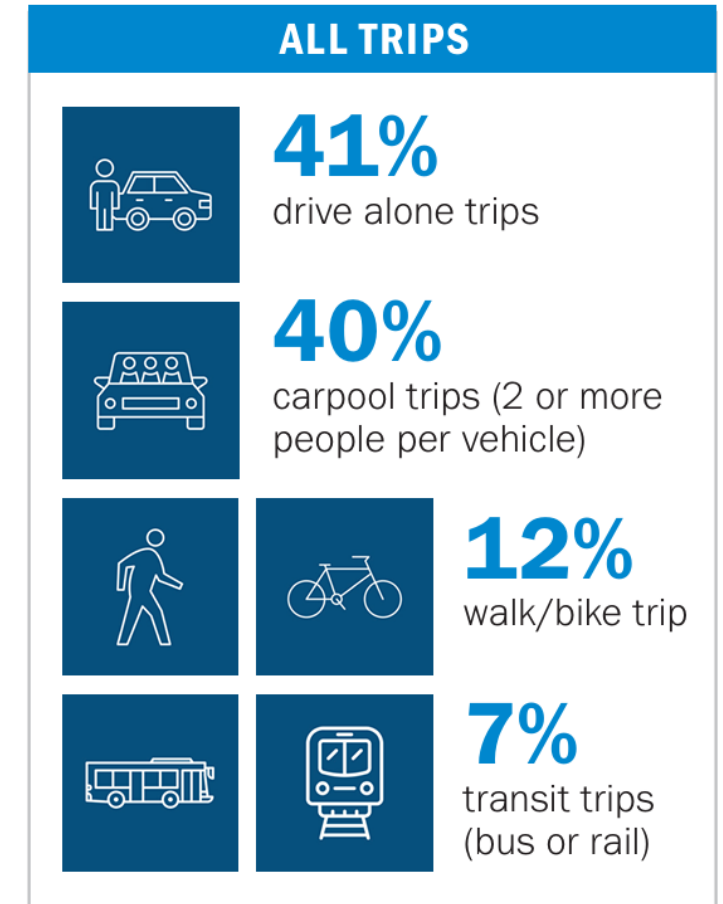
TPB's Goals



Chapter 2: Transportation System Today

Recognizing how the strengths of the region's current multimodal system lay the foundation for future improvements

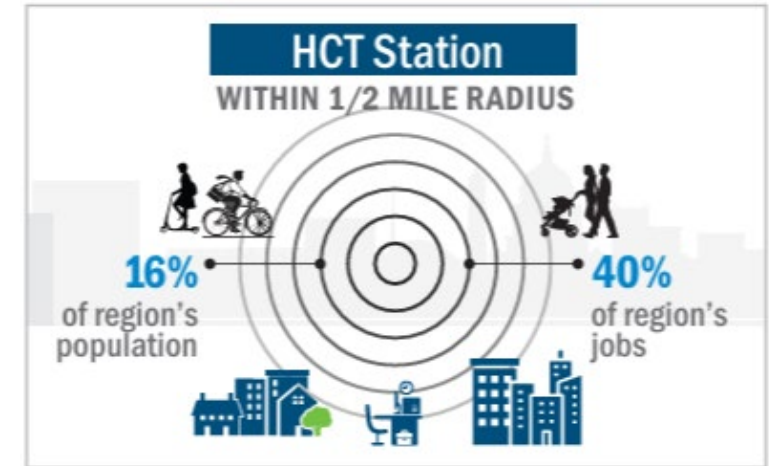
- Roadways
- Railways
- Bus Transit
- Pedestrians
- Bicyclists and Micromobility
- Transportation Demand Management
- Surface Connections to Air
- Pipelines and Waterways



Chapter 3: Current Transportation System Performance

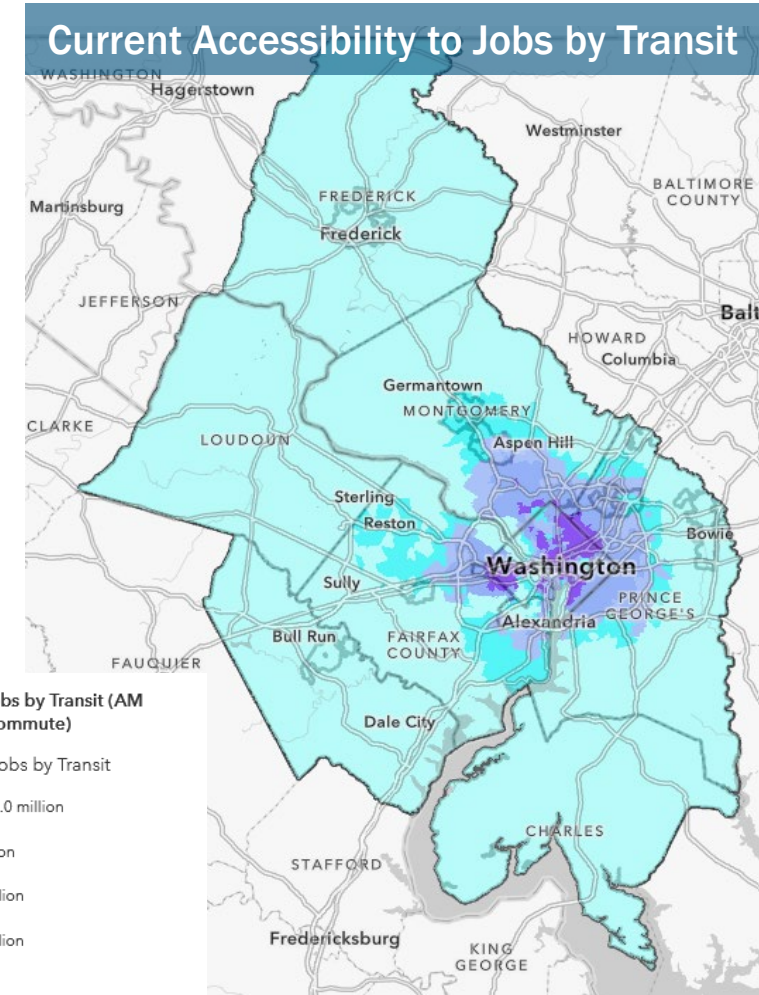
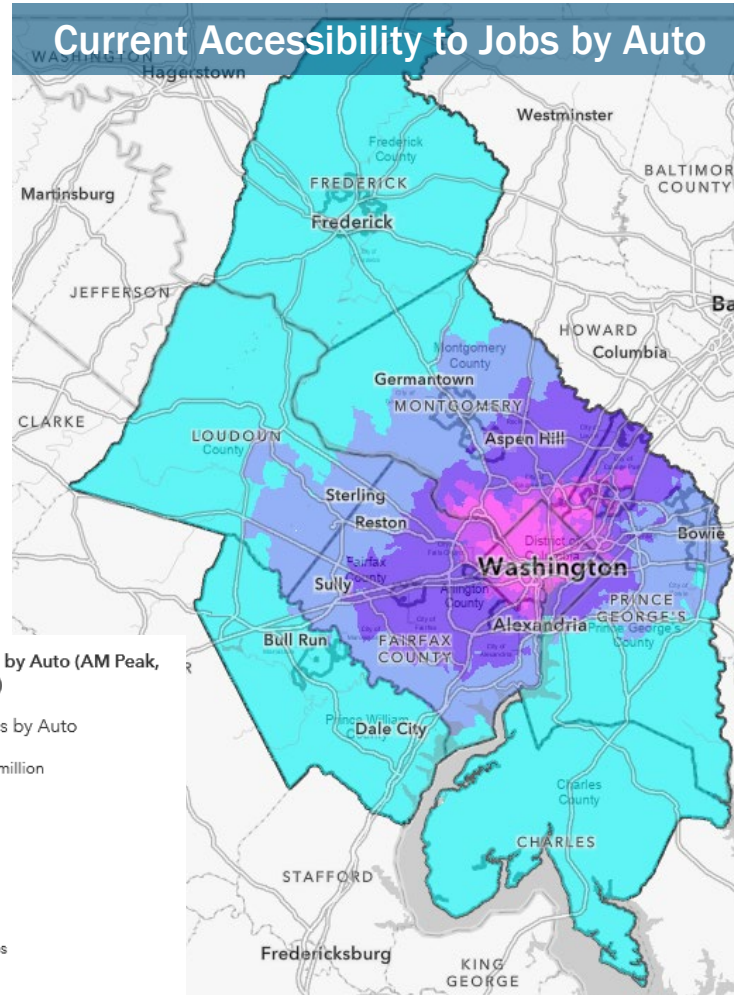
Reflects on how the system performs in moving people and goods and the region's progress toward its performance targets

- Access
- Reliability and Congestion
 - 8/8 targets met
- Safety and Security
 - 8/20 targets met
- Maintenance
 - 17/25 targets met
- System Management



MV Jantzen/Flickr

Chapter 3: Current Transportation System Performance



Chapter 4: Societal Topics

Reflects on the many topics influencing and impacted by transportation:

Economy

- Population and Demographics*
- Households and Housing
- Housing Affordability
- Employment and Income*
- Tourism
- Land Use and Development Patterns
- Activity Density*
- Regional Activity Centers*

Environment

- Air Quality
- Natural Hazards Resiliency*
- Parks and Open Space
- Protected Lands
- Wetlands

Public Health

- Physical Health
- Mental Health

Emerging Technologies

- Regional Intelligent Transportation System Architecture
- Autonomous Driving, Connected and Automated Vehicles (CAVs)
- Electric Vehicles/Zero-Emission Vehicles*
- Artificial Intelligence
- Drone/Automated Vehicle Deliveries
- Automated Traffic Enforcement
- Automatic Train Operation
- On-Demand Transit/Microtransit

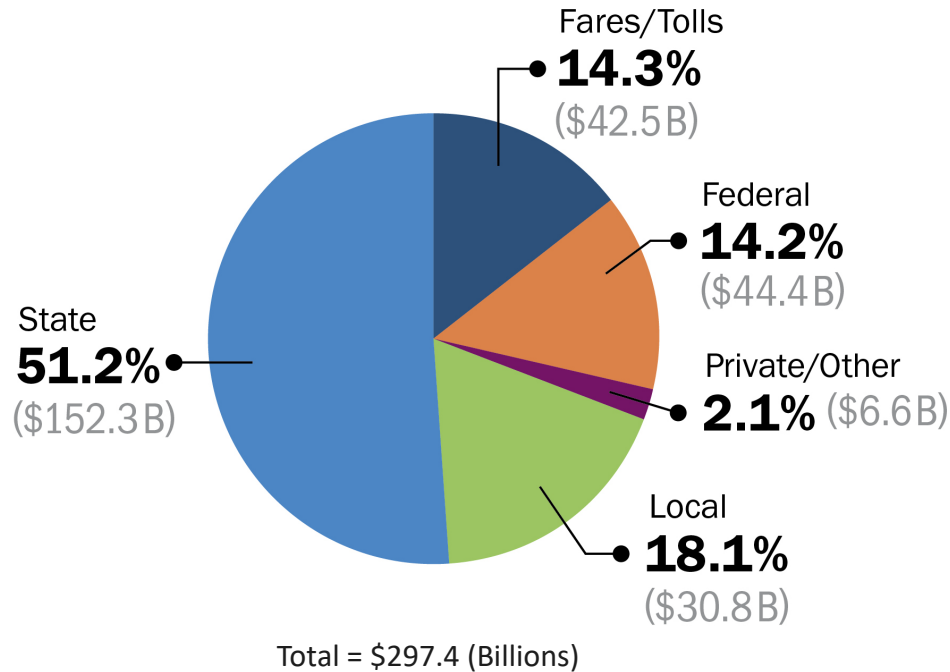


**See online maps associated with these topics.*

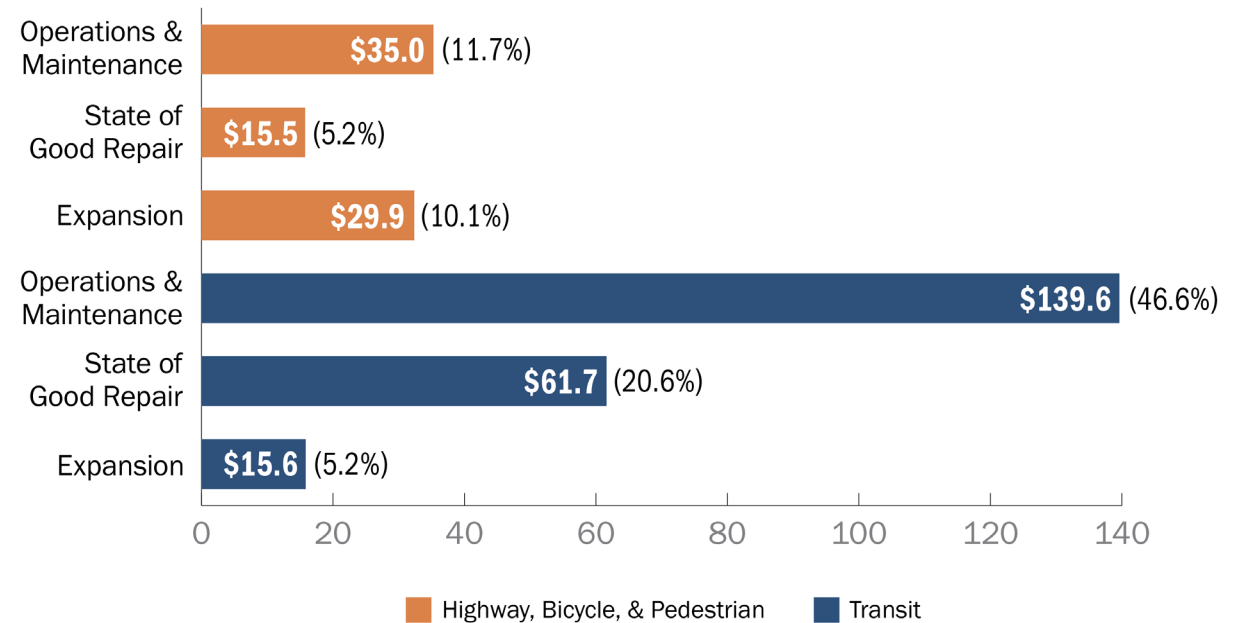
Chapter 5: Financial Plan

Highlights the region's investment plan given current and reasonably anticipated funding availability
 The forecast revenues are reasonably expected to be available to implement Visualize 2050

Revenues by Funding Source in Year of Expenditure Dollars (Billions), 2026-2050



Expenditures by Type and Mode in Year of Expenditure Dollars (Billions), 2026-2050



Chapter 5: Financial Plan

Applying TPB's Priority Strategies via the Planned Expenditures

- Apply best practices to maintain the transportation system
- Apply the endorsed safety strategies to design and operate safer infrastructure and encourage safer behavior
- Provide more telecommuting and other options for commuting
- Implement Transportation System Management and Operations (TSMO) measures at all eligible locations
- Apply effective technologies that advance the TPB's goals



BeyondDC/Flickr



Elvert Barnes/Flickr

Chapter 6: Future System and Performance

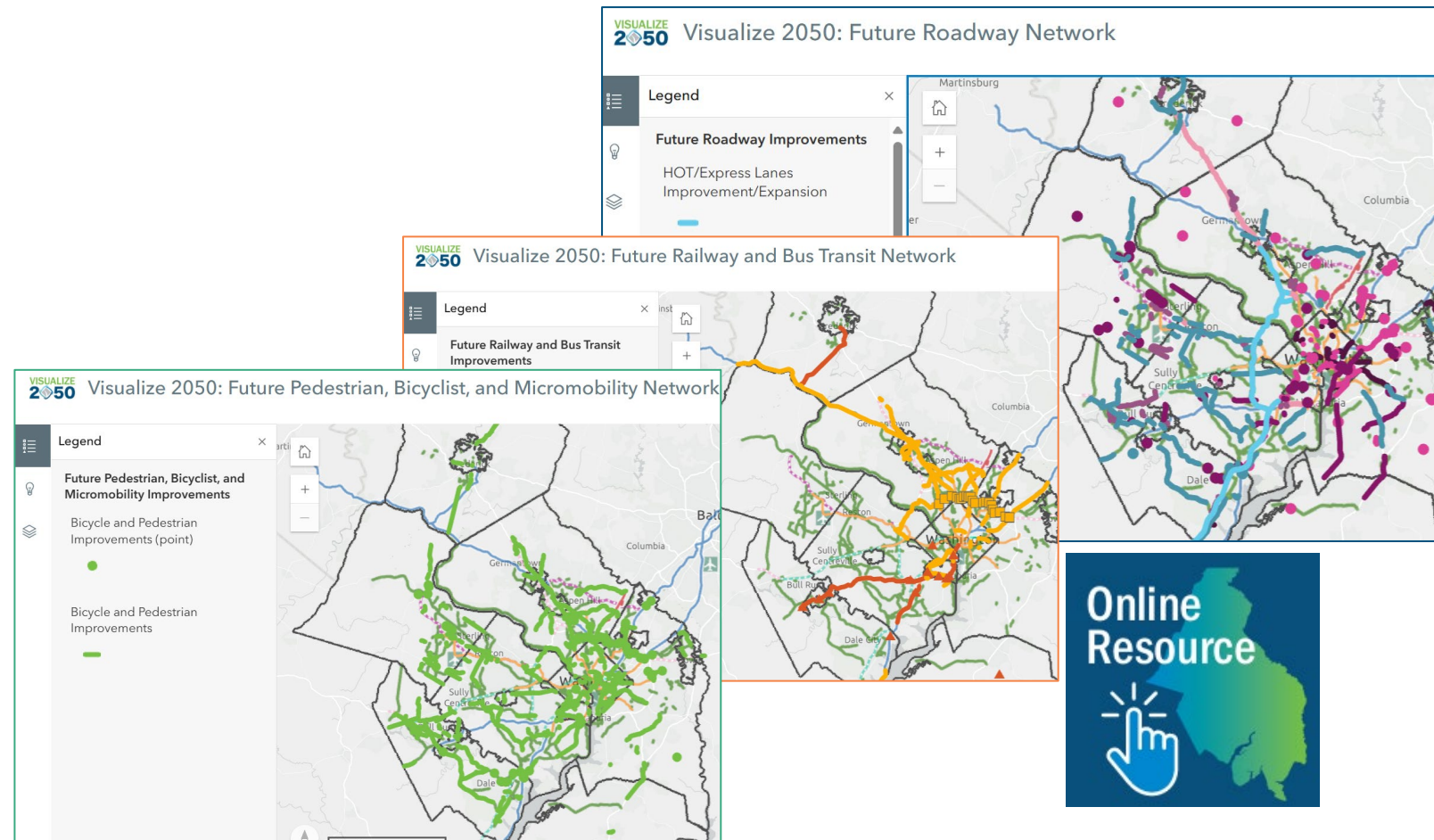
Envisioning the National Capital Region's 2050 transportation system and its future performance

Future Transportation Network

- Roadways
- Railways
- Bus Transit
- Pedestrians, Bicyclists, and Micromobility

2050 System Performance

- Access
- Congestion
- Environmental Forecasts



Chapter 6: Future System and Performance

Roadways

- Over 600 added lane miles
- Conversion of 10 HOV miles to HOT
- Upgraded streetlight technologies and intersections

Walking, Biking, and Micromobility

- Where applicable and possible, all future projects will include bicycle/pedestrian accommodations

Bus Transit

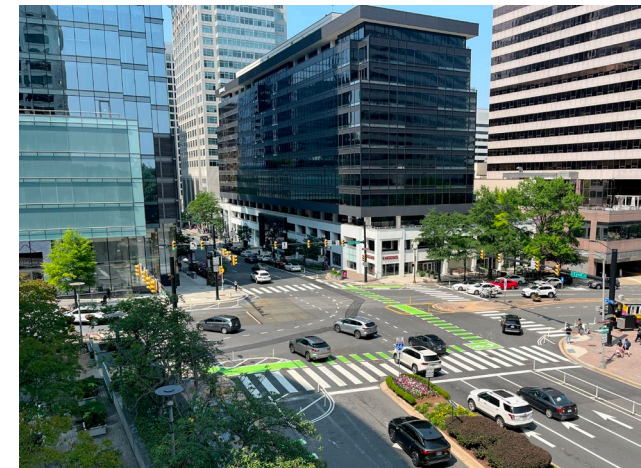
- +79 BRT lane miles and +90 BRT stations
- Replacement of aging fleets with clean fuel/EV buses

Railways

- +18 added rail miles and +27 rail stations
- Operational enhancements, station upgrades, accessibility improvements



BeyondDC/Flickr



BeyondDC/Flickr

Chapter 6: Future System and Performance

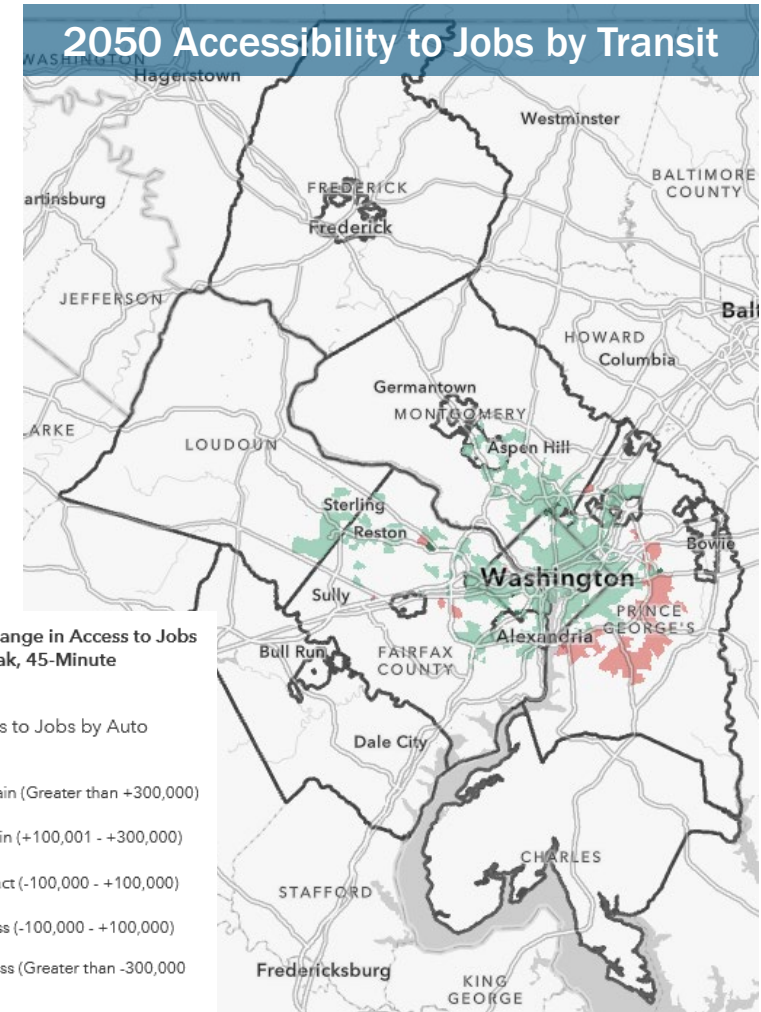
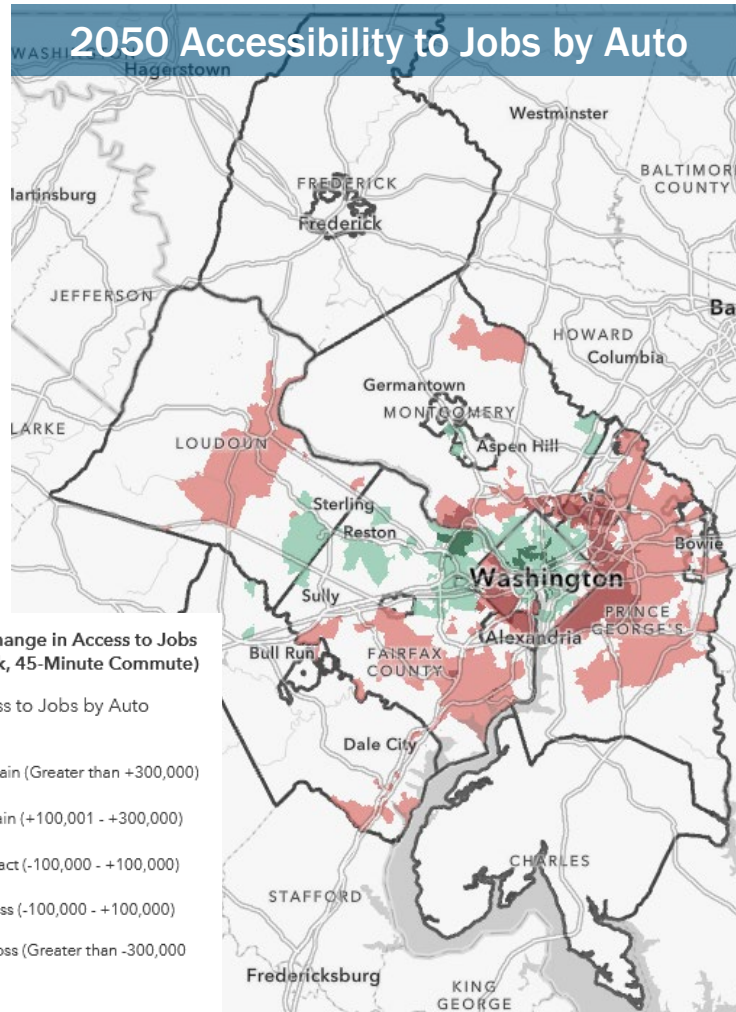
The 2050 system will further advance these TPB Priority Strategies:

- Bring jobs and housing closer together
- Expand the express highway network, with rapid transit, and allow carpool/vanpool to ride free
- Develop and implement an electric vehicle charging network
- Move more people on Metrorail
- Increase frequency and capacity of transit
- Reduce travel times on all public transportation bus services
- Convert vehicles to clean fuels
- Improve walk and bike access to transit
- Complete the National Capital Trail Network to create



BeyondDC/Flickr

Chapter 6: Future System and Performance



Chapter 7: Planning Together for Further Progress

Challenges will exist beyond the planned investments



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CONTINUED TRAVELER FATALITIES & SERIOUS INJURIES

Safety challenges are unlikely to be fully resolved, as some of the underlying contributing factors—large vehicles, high-speed roadway designs, and distracted or unsafe driving—are complex and far-reaching.

SINGLE-OCCUPANT VEHICLES CONTINUE TO BE MOST PEOPLE'S CHOICE FOR COMMUTING

Many residents, particularly in the region's inner and outer suburbs, will continue to face limited access to timely multimodal options to access work due to long travel distances and impracticality of travel times.



ANTICIPATED RISKS TO INFRASTRUCTURE FROM NATURAL HAZARDS

Increased flooding and extreme heat will mount more pressure on essential, aging infrastructure.



INSUFFICIENT TRANSIT REVENUE TO SUSTAIN, LET ALONE INCREASE SERVICES

There continues to be challenges with adequately funding the Washington Metropolitan Area Transit Authority (WMATA) and local transit service needs with sustainable, predictable, long-term sources. Financial uncertainties will hinder the region's ability to elevate the transit system to a world-class modern standard.

CONTINUED INCREASE IN TRAFFIC CONGESTION & DELAYS

Congestion and delays are forecasted to persist. While delays may be expected and even yield reliable travel times, frustration will affect people's health and mental well-being as well as their daily activities.

CONSTRAINED FUNDS FOR MAINTENANCE

Most funds go to operations, maintenance, and state of good repair, but limited and uncertain sources—including declining gas tax revenue and unpredictable federal support—make prioritization challenging as funding needs continue to increase.



INSUFFICIENT TRUCK PARKING ALONG MAJOR ROUTES

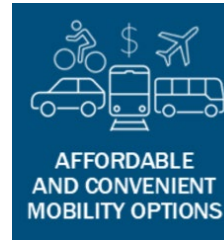
The surge in consumer demand for rapid package delivery has increased freight traffic along major routes, leading to difficulties for truckers to find reliable parking.



ANTIQUATED INFRASTRUCTURE AT UNION STATION LIMITING SERVICE AND CAPACITY

As the region's busiest transit hub, Union Station must upgrade and expand to meet projected ridership on intercity rail and bus, Metrorail, VRE, MARC, and ground transportation driven by population/employment growth regionally and along the Northeast Corridor.

Chapter 7: Planning Together for Further Progress



Commitment to Achieving Our Goals and meeting performance targets

TPB and COG goals will guide the region to be one that is more livable, sustainable, and accessible for all.

Moving forward, the region will continue to plan together for better travel tomorrow!

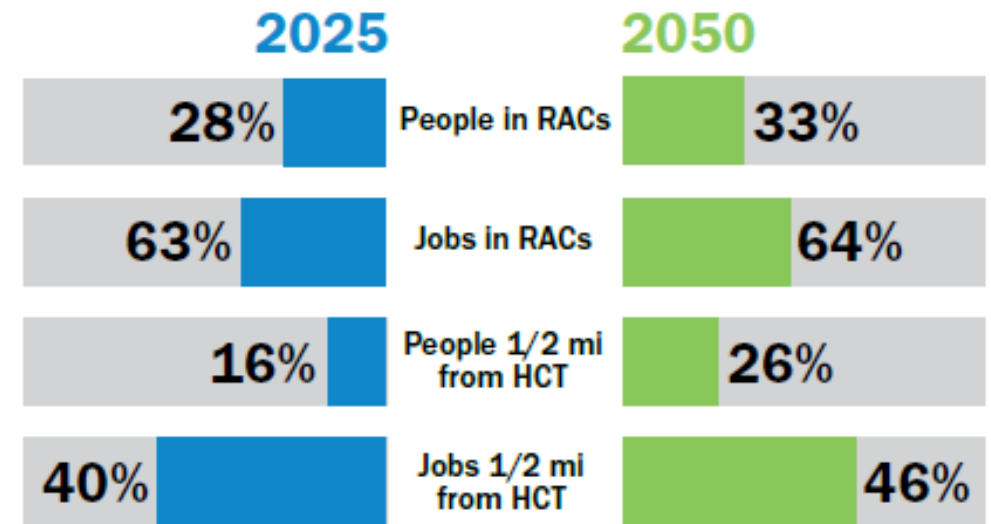


Rachel Beyerle/COG

Land Use Planning & the Round 10.0 Cooperative Forecast in Visualize 2050

- Land use, activity density, and development patterns
- Impact of online shopping and emerging technologies on land use
- Regional Activity Centers in 2025 and 2050
- Cooperative Forecasts Model Output
 - Congestion, delay, mode share, access to jobs, mode analysis by geographic analysis area, air quality
- Future projects related to transportation and land use coordination
- TPB Priority Strategy
- TPB Goal
- Ongoing Challenges
 - Continued increase in traffic congestion & delays
 - Single-occupant vehicles expected to continue to be most people's choice for commuting

Percent of People and Jobs in Regional Activity Centers and near High-Capacity Transit, Today and 2050



V2050 Process Documentation: Land Use and Transportation Coordination

What informed Land Use and Transportation Coordination topics in Visualize 2050

- TPB's Role
- Role of TPB Subcommittees
- The Cooperative Forecasting Process
- Regional Activity Centers
 - Historical Context and Updates

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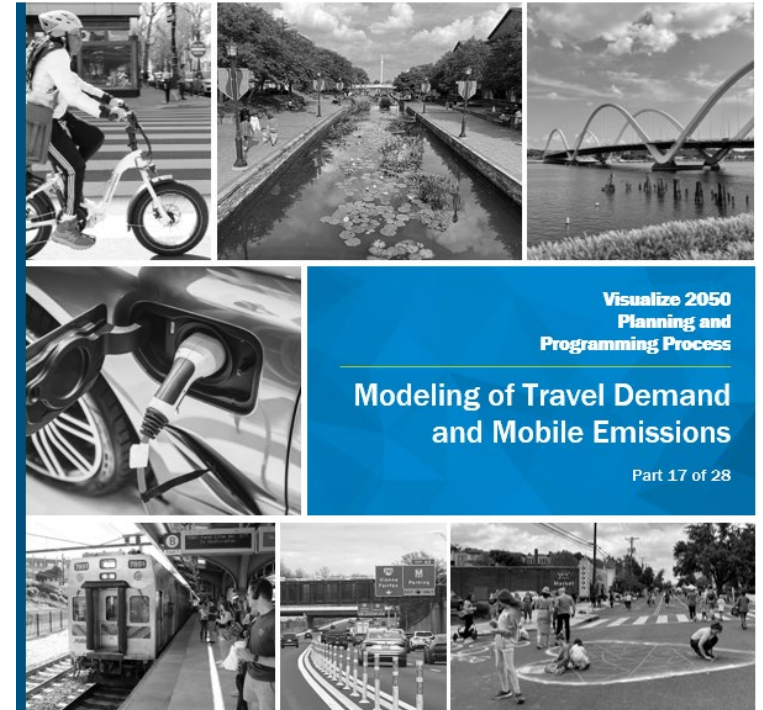


V2050 Process Documentation: Modeling of Travel Demand and Mobile Emissions

What informed the Modeling of Travel Demand and Mobile Emissions in Visualize 2050

- TPB's Role
- Role of TPB Subcommittees
- Air Quality Conformity Analysis Model Inputs
- Planning Uncertainties

VISUALIZE
2050



VISUALIZE 2050
National Capital Region Transportation Plan

National Capital Region
Transportation Planning Board

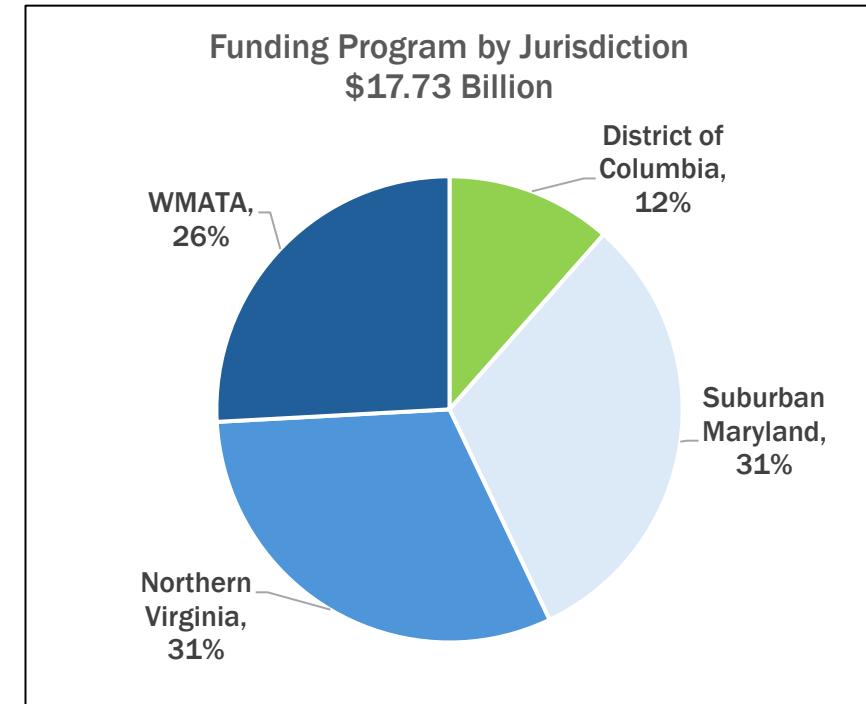
Draft November 2024 / Approved Month XX, 2025

FY 2026-2029 Transportation Improvement Program

Funding Overview

- The FY 2026-2029 TIP features more than 350 funding records for projects, programs, and project groupings throughout the region, totaling approximately \$17.73 Billion.

Record Type	Total Projects	Total TIP Funding
Discrete	209	\$8.35 billion
Grouped	32	\$6.19 billion
Ongoing	114	\$3.20 billion
Total	355	\$17.73 billion



Major Projects in the FY 2026-2029 TIP

TIP ID	Agency	Project Title	Total Project Cost	Total TIP Funding
T6727	VPRA	Long Bridge VA - DC	\$2,660 million	\$2,086 million
T2795	MDOT MTA	Purple Line	\$3,775 million	\$570 million
T6396	Montgomery Co	MD 355 Bus Rapid Transit Central	\$424 million	\$350 million
T13759	VPRA	Franconia-Springfield Bypass	\$336 million	\$294 million
T6706	VPRA	Franconia to Lorton 3rd Track Project	\$275 million	\$248 million
T6039	DDOT	H Street Bridge over Railroad	\$372 million	\$185 million
T6449	VDOT	Frontier Dr Extension	\$248 million	\$174 million
CE2671	VDOT	Edwards Ferry Road at Route 15 Bypass Interchange	\$181 million	\$171 million
T11602	VDOT	Richmond Highway Corridor Improvements, Phase 2	\$265 million	\$164 million
T3049	Montgomery Co	Goshen Road South	\$168 million	\$160 million

Air Quality Conformity Analysis Report

Air Quality Conformity

- Air quality conformity analysis is a federal requirement that ensures transportation plans and projects do not prevent a region from meeting its air quality goals under the Clean Air Act (CAA).

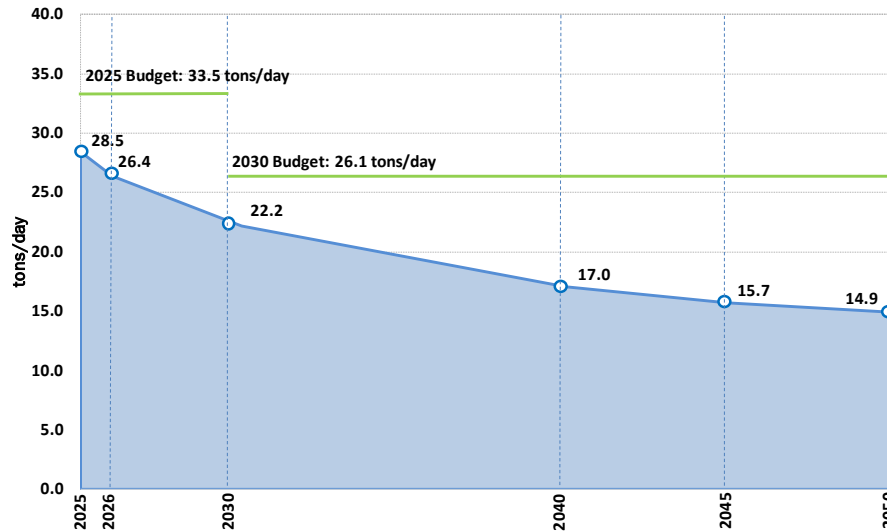


- The Washington, DC-MD-VA non-attainment area (TPB region + Calvert County) only has conformity requirements for ground-level Ozone.

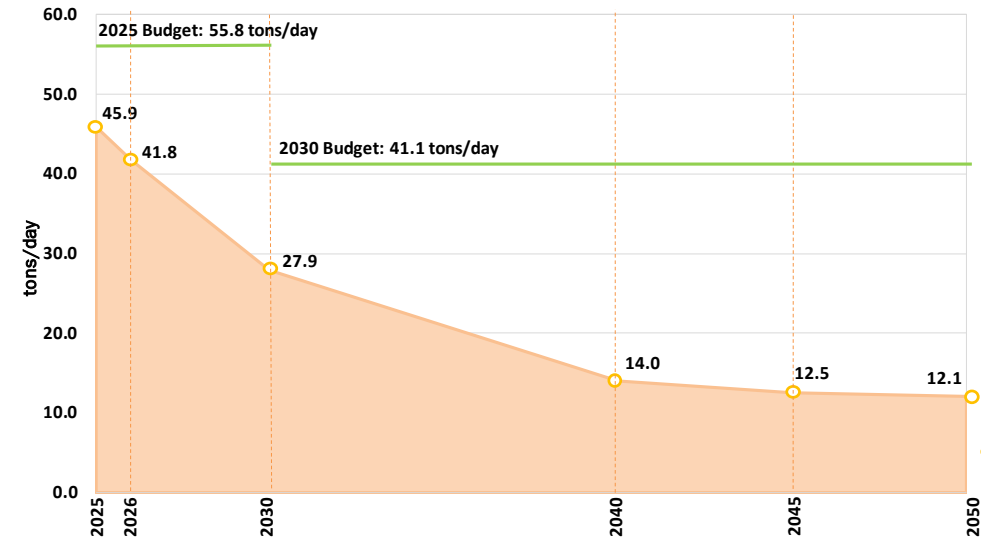


Air Quality Conformity Results

Volatile Organic Compounds (VOCs)



Nitrogen Oxides (NO_x)



- The conformity analysis utilizes the region’s travel demand model and EPA’s Motor Vehicle Emissions Simulator (MOVES) to calculate total emissions of VOC and NO_x.
- For both VOCs and NO_x, total emissions fall below the MVEBs.
- Visualize 2050 conforms to the SIP (passes conformity).

Next Steps

2025	
November	11/21/2025 Public comment period closes.
December	12/17/2025 TPB updated on additional comments and responses and acts to approve the results of the AQC analysis and adopt the Visualize 2050 plan and the FY 2026-2029 TIP.

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