

# VISUALIZE 2050

*National Capital Region Transportation Plan*

Agenda Item 3

## OVERVIEW OF PUBLIC COMMENT PERIOD MATERIALS

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

Jamie Bufkin  
TPB Transportation Planner

Regional Public Transportation Subcommittee  
November 25, 2025



National Capital Region  
**Transportation Planning Board**

# Overview

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- Providing Comments
- National Capital Region Transportation Plan – Visualize 2050
  - Public Transportation Planning 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](https://visualize2050.org)
  2. Email: [tpbcomment@mwkog.org](mailto: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 displays the Visualize 2050 website. At the top, navigation tabs include 'ABOUT', 'PLAN DEVELOPMENT', 'THE PLAN' (highlighted), 'PLAN RESOURCES', and 'GET INVOLVED'. Below these are sub-tabs for 'Executive Summary', 'Draft Plan', and 'Chapters'. The main content area is titled 'DRAFT PLAN - FULL DOCUMENT' and includes a description of the plan's purpose. It features a 'DOWNLOAD PDF' button and a grid of 'FUTURE TRANSPORTATION' maps, each with a 'VIEW THE MAP' button. A 'DRAFT PLAN CHAPTERS' table is also visible, listing chapters from 1 to 7, each with a 'VIEW THE MAP' button and a green checkmark indicating availability.

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

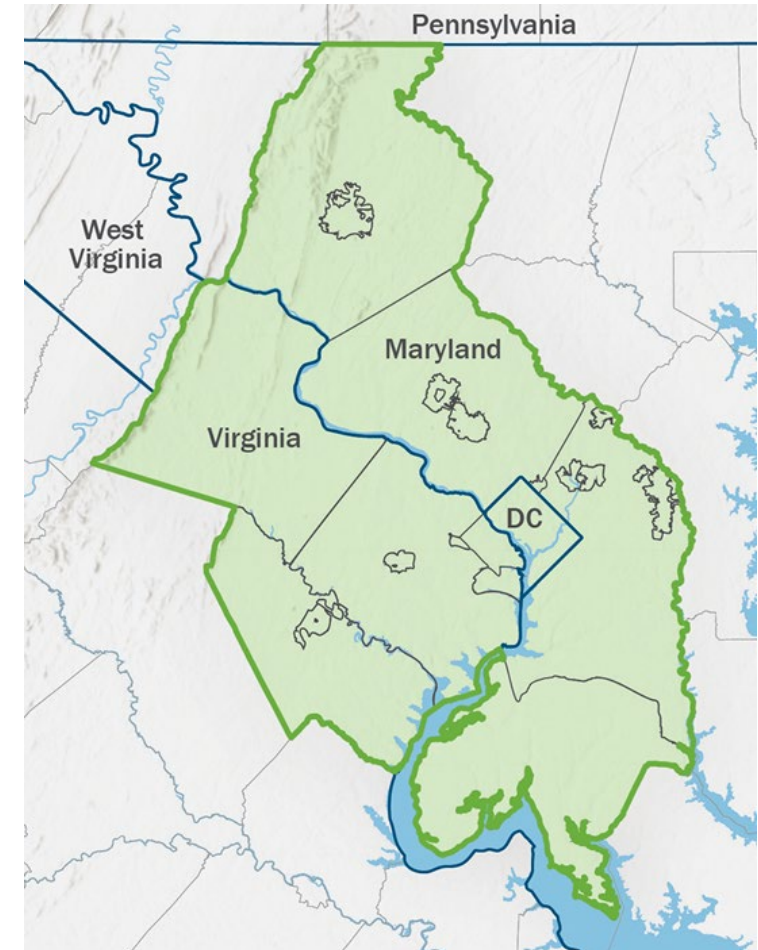
## The National Capital Region today:

- 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 21<sup>st</sup> Century Act (MAP-21)

## TPB's Goals

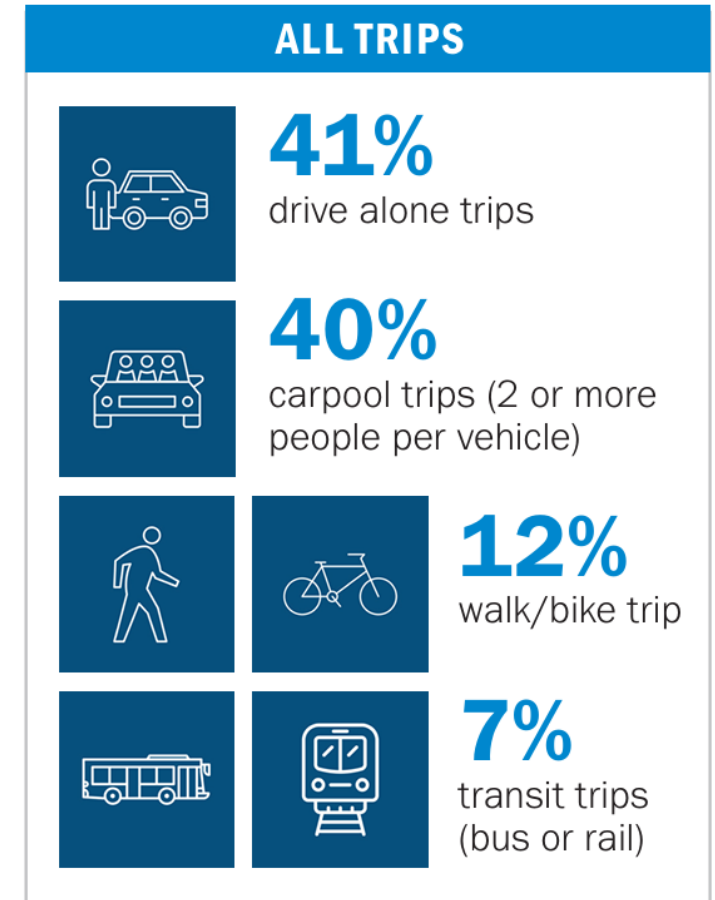




# Chapter 2: Transportation System Today

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

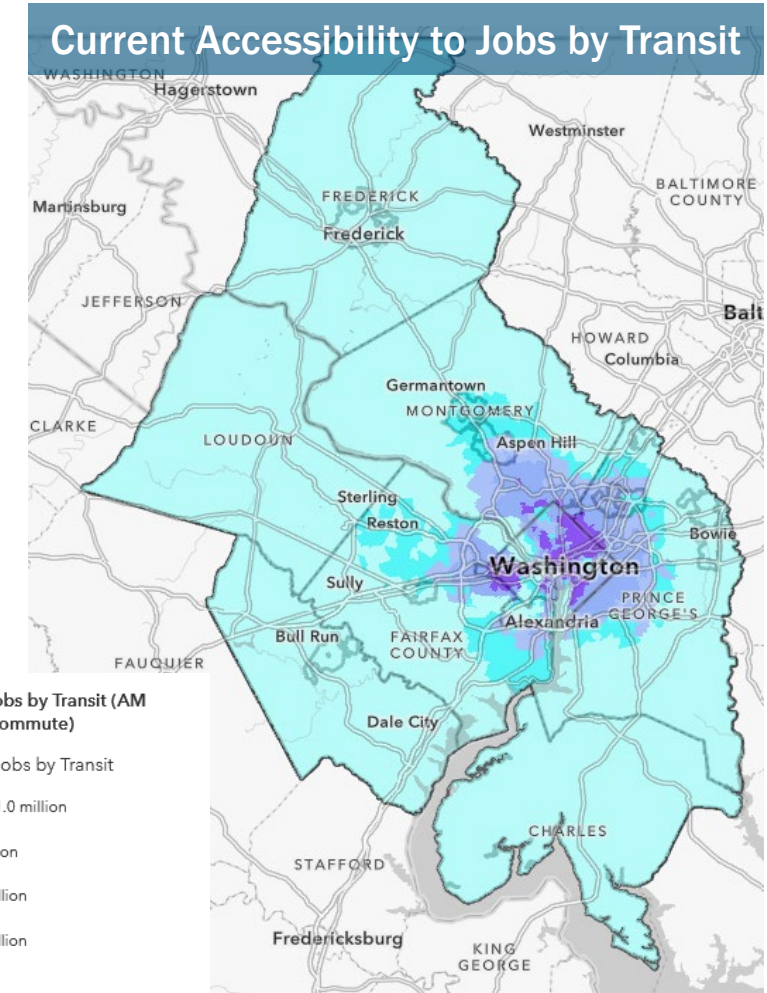
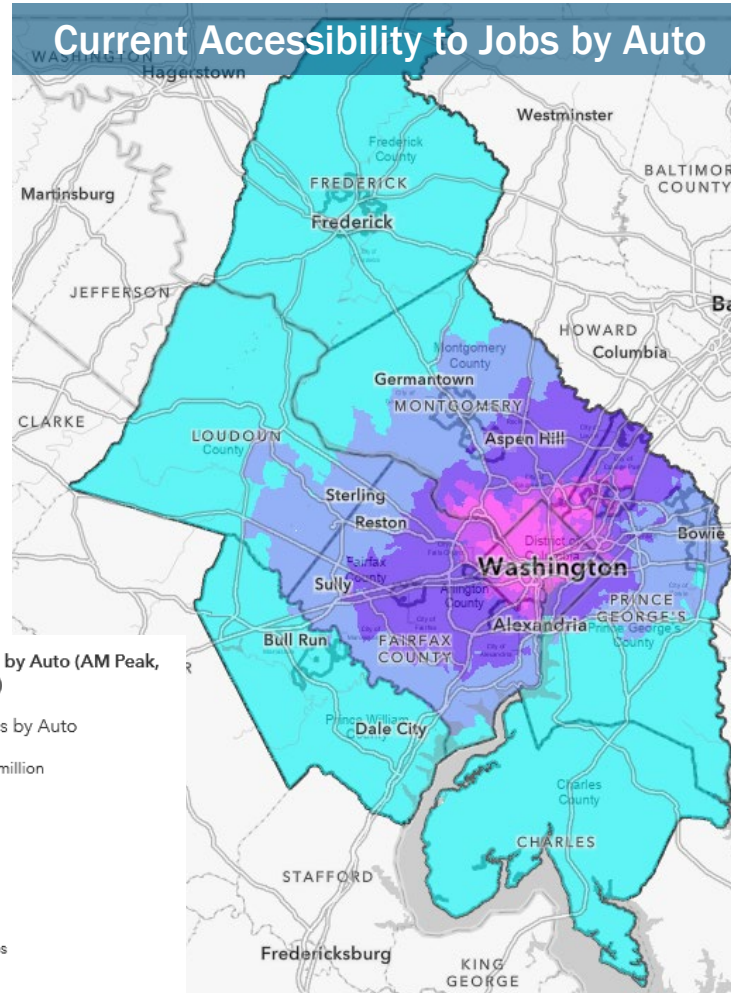
Reflects on how the system performs in moving people and goods and the region's progress toward its performance targets

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



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# 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

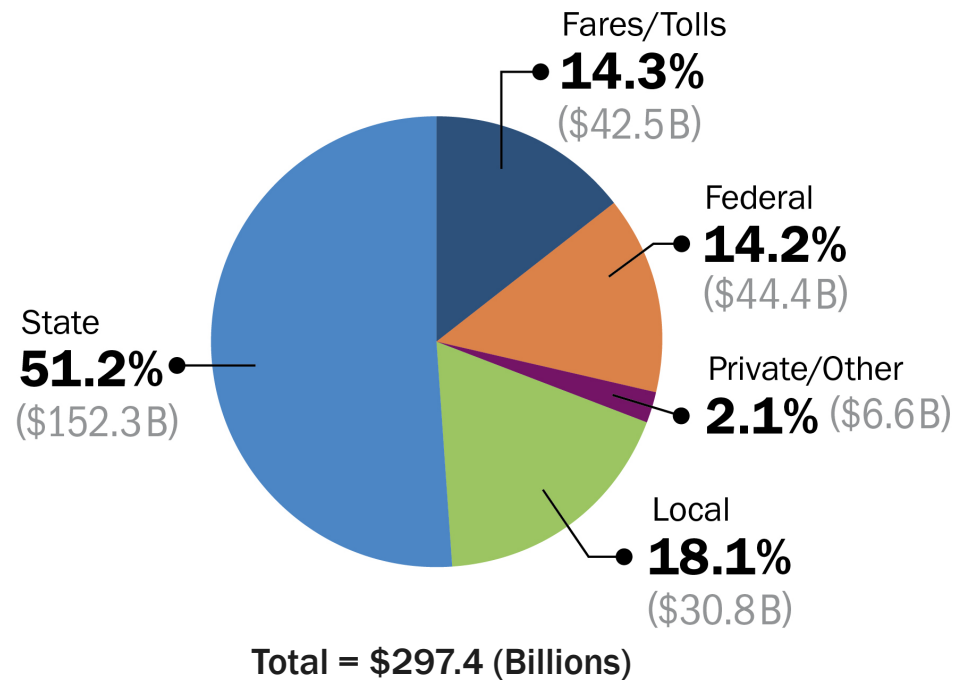


*\*See online maps associated with these topics.*

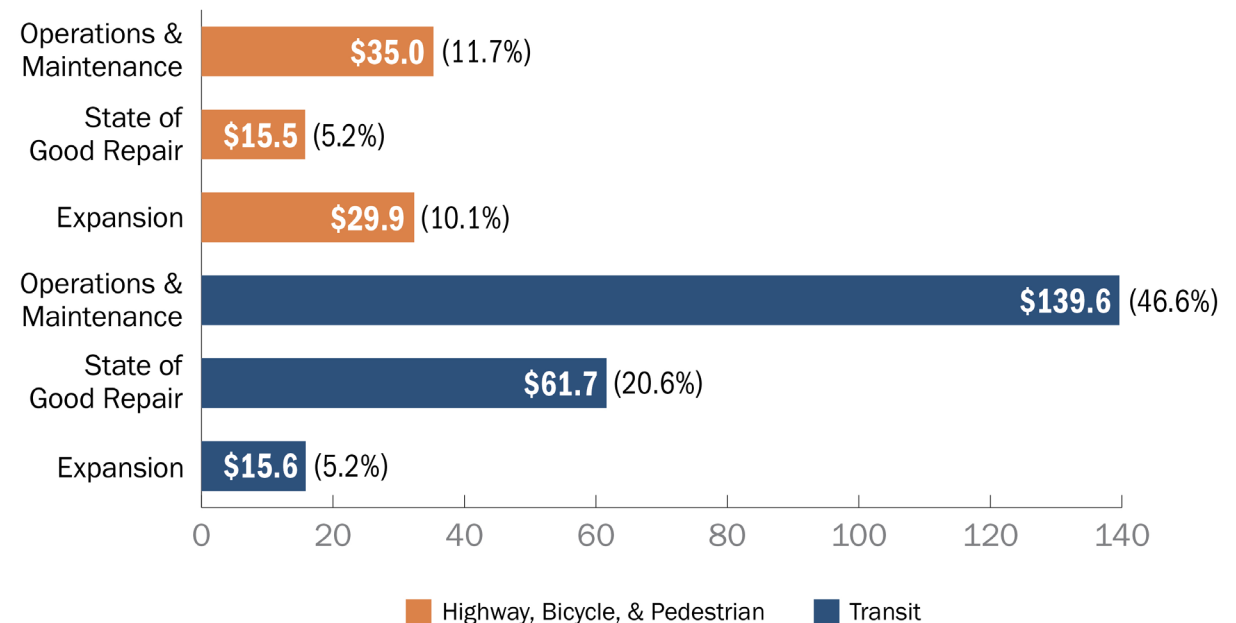
# Chapter 5: Financial Plan

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



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# Chapter 6: Future System and Performance

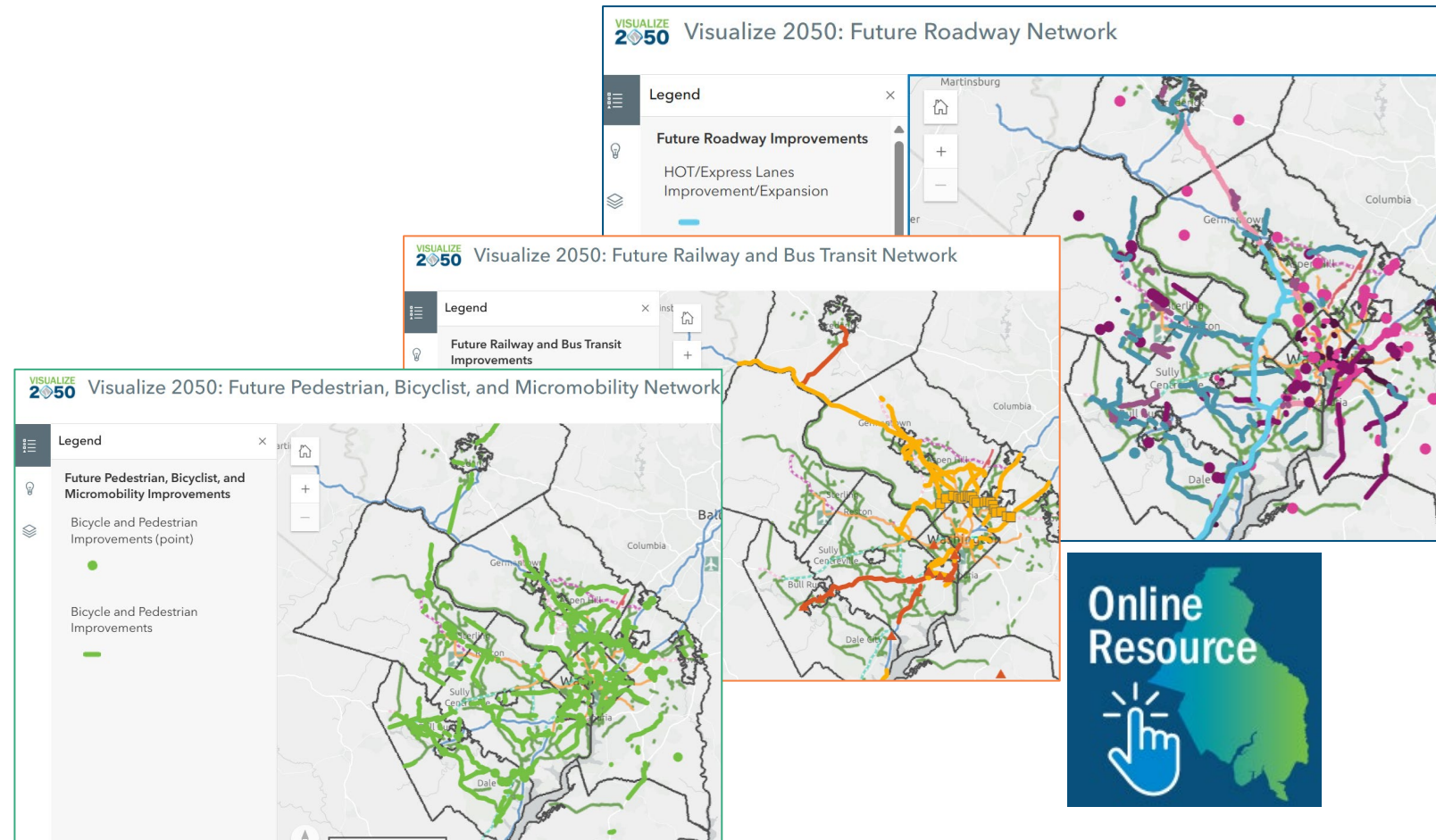
## Envisioning the National Capital Region's 2050 transportation system and its future performance

### Future Transportation Network

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

### 2050 System Performance

- Access
- Congestion
- Environmental Forecasts





# Chapter 6: 2050 System & 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

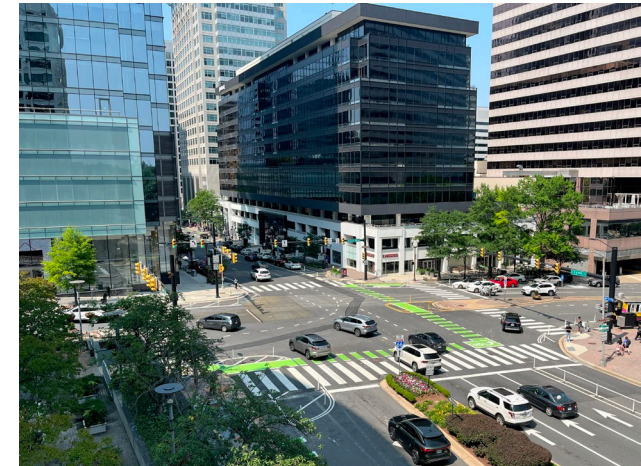
- +79 BRT lane miles and +90 BRT stations
- Replacement of aging fleets with clean fuel/EV buses

## 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:

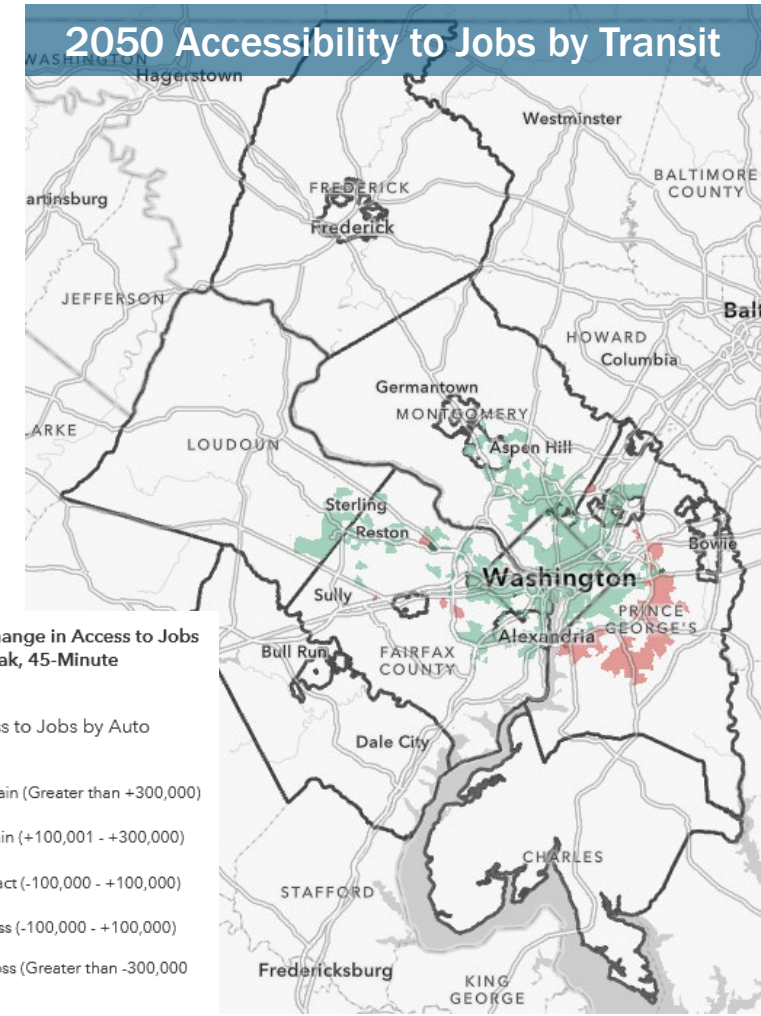
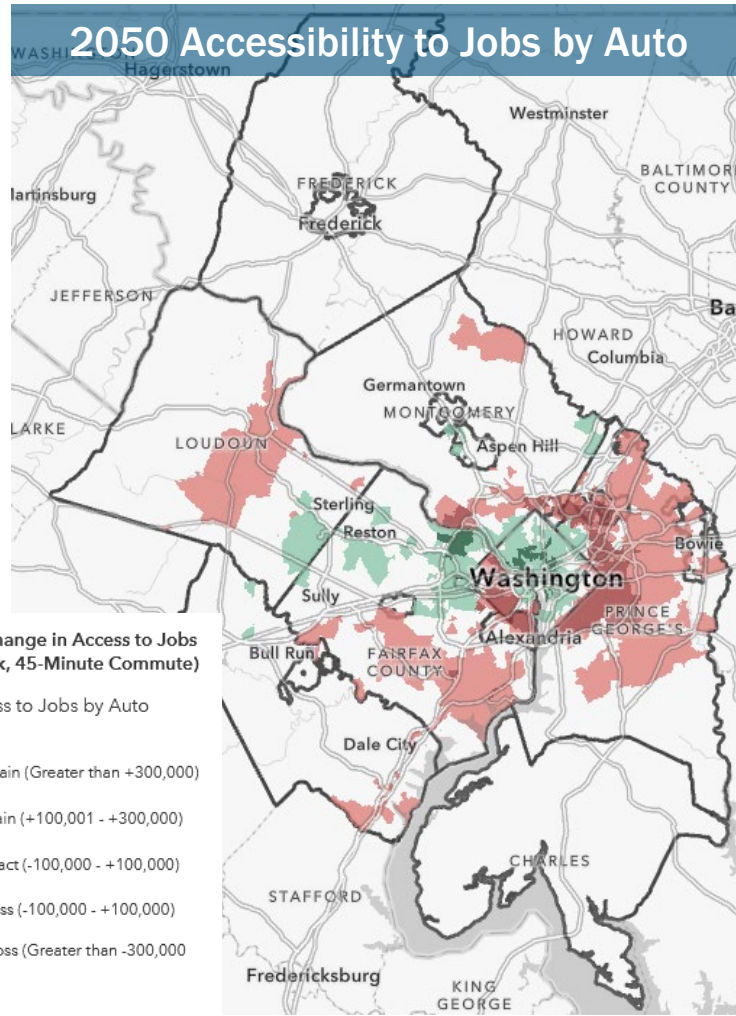
- Bring jobs and housing closer together
- Expand the express highway network, with rapid transit, and allow carpool/vanpool to ride free
- Develop and implement an electric vehicle charging network
- Move more people on Metrorail
- Increase frequency and capacity of transit
- Reduce travel times on 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



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# Chapter 6: Future System and Performance

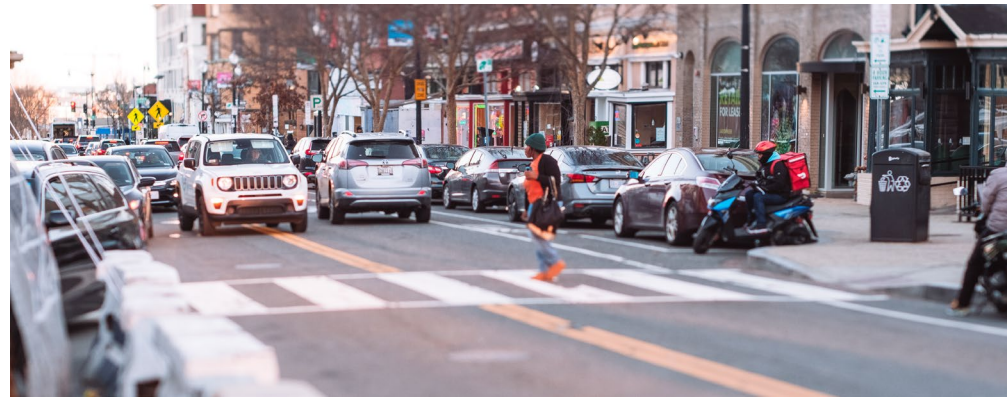


# Chapter 7: Planning Together for Further Progress

## Challenges will exist beyond the planned investments



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Emma K Alexandra/Flickr

### 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.

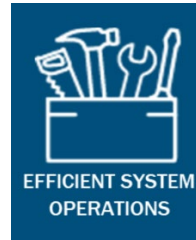


### ANTIQUATED INFRASTRUCTURE AT UNION STATION LIMITING SERVICE AND CAPACITY

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

# Public Transportation Information in Visualize 2050

- Current & future network
- Ridership trends
- Avg commute distance and commute time
- Current & future list of stations, systems, and providers
- Current & future accessibility to jobs
- Current & future proximity of people and jobs to HCT stations
- Current challenges with transit
- Maintenance of transit assets
- System management
- Land use development, activity density, and Regional Activity Centers (RACs)
- Emerging technologies in transit
- Future public transportation projects
- Ridership by geographic analysis zone
- Priority strategies
- TPB goals
- Ongoing Challenges:
  - Natural hazards resiliency
  - Continued dominance of single-occupant vehicles of work commute
  - Insufficient transit revenues
  - Antiquated infrastructure at Union Station



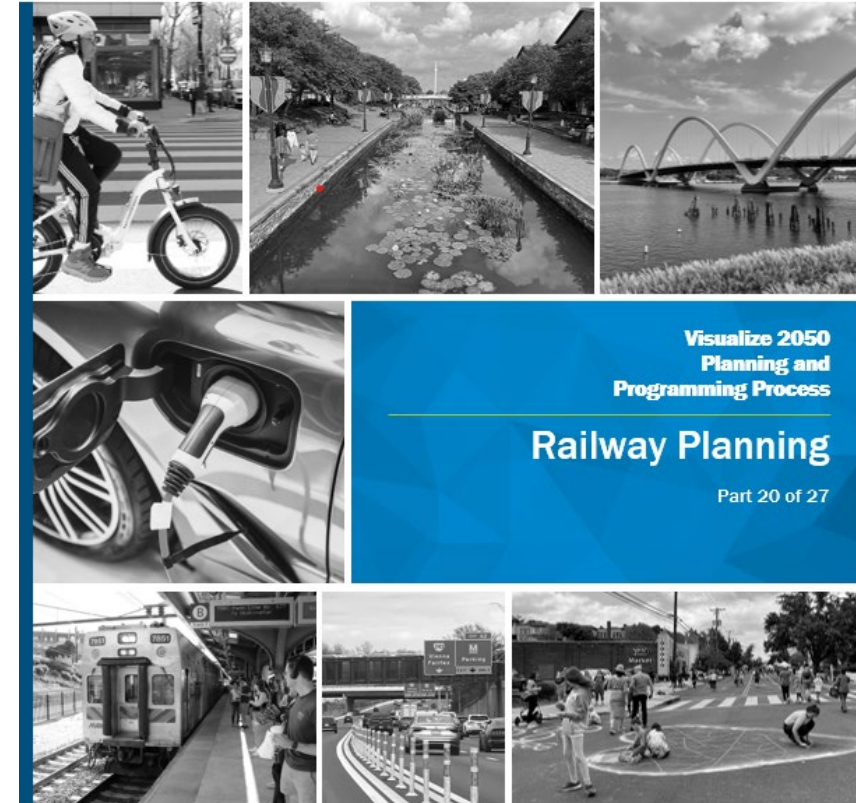
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# V2050 Process Documentation: Railway Planning

## What informed Railway Transit Planning in Visualize 2050

- TPB's Role in Railway Planning
- Role of Regional Public Transportation Subcommittee
- Intercity Travel Studies
- Transit Access Focus Areas Planning Tool
- High-Capacity Transit Accessibility Study
- State of Public Transportation Report
- Agency Rail Plans
- DMVMoves

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# V2050 Process Documentation: Bus Transit Planning

## What informed Bus Transit Planning in Visualize 2050

- TPB's Role in Bus Transit Planning
- Role of Regional Public Transportation Subcommittee
- High-Capacity Transit Accessibility Study
- Intercity Bus and Rail Travel Studies
- State of Public Transportation
- Coordinated Human Services Transportation Plan and the FTA Enhanced Mobility Program
- Agency Bus Plans

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Visualize 2050  
Planning and  
Programming Process

Bus Transit Planning

Part 19 of 27



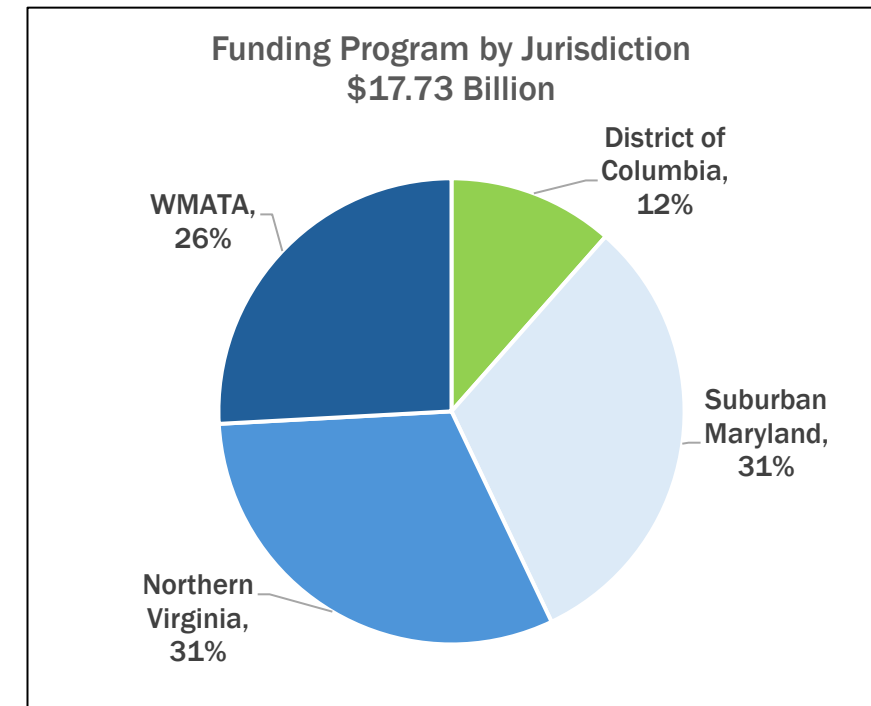
# FY 2026 - 2029 Transportation Improvement Program (TIP)

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# 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
<b>Total</b>	<b>355</b>	<b>\$17.73 billion</b>



# 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

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# 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).

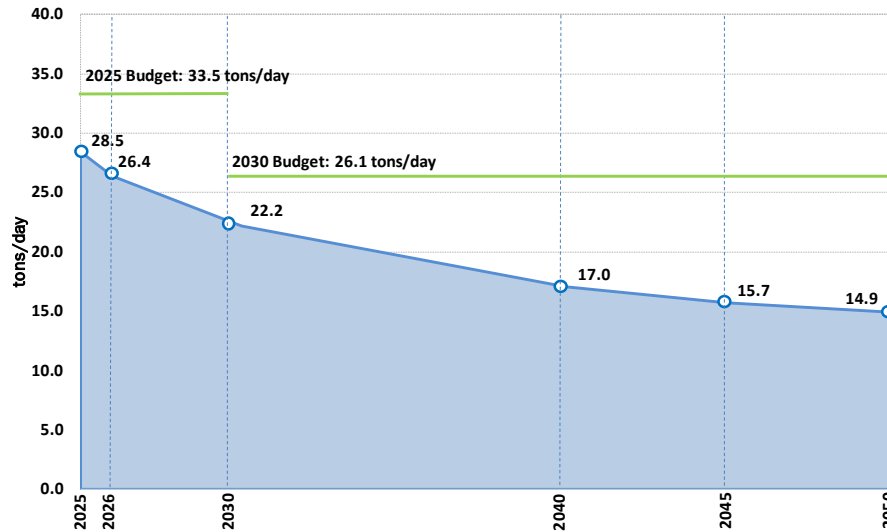


- The Washington, DC-MD-VA non-attainment area (TPB region + Calvert County) only has conformity requirements for ground-level Ozone.

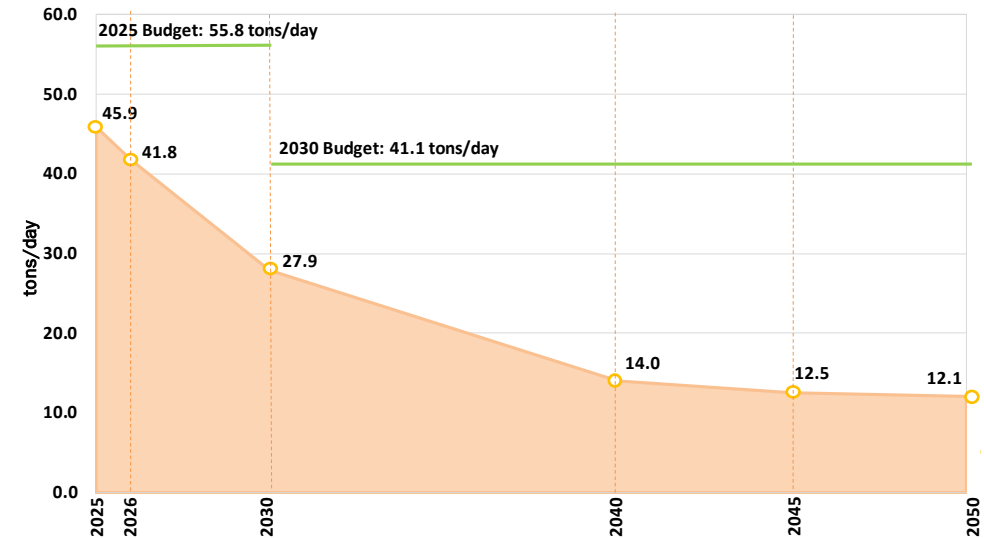


# Air Quality Conformity Results

## Volatile Organic Compounds (VOCs)



## Nitrogen Oxides (NO<sub>x</sub>)



- 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<sub>x</sub>.
- For both VOCs and NO<sub>x</sub>, total emissions fall below the MVEBs.
- Visualize 2050 conforms to the SIP (passes conformity).

# Next Steps

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2025	
December	<b>12/17/2025</b> 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.



## Jamie Bufkin

TPB Transportation Planner

(202) 962-3275

[jbufkin@mwkog.org](mailto:jbufkin@mwkog.org)

[mwkog.org/tpb](http://mwkog.org/tpb)

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Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002



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