VISUALIZE 2050

National Capital Region Transportation Plan

OVERVIEW OF PUBLIC COMMENT PERIOD MATERIALS

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

Cristina Finch
TPB Transportation Planner

Access for All Advisory Committee
November 3, 2025

National Capital Region
Transportation Planning Board

Agenda Item 5

Overview

- Providing Comments
- National Capital Region Transportation Plan – Visualize 2050
- FY 2026-2029 Transportation Improvement Program (TIP)
- Air Quality Conformity Analysis Report

SeanPavonePhoto/iStock

VISUALIZE 2050
National Capital Region Transportation Plan

Providing Comments

- Comment Period: October 23–November 21, 2025
- TIP Forum: November 13, 2025

- 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@mwcog.org
  3. Call: (202) 962-3774
  4. Mail: TPB Chair, 777 N. Capitol Street NE, Suite 300 Washington, DC 20002

#Visualize2050

VISUALIZE 2050
National Capital Region Transportation Plan

Visualize 2050 Content

Visualize 2050 Executive Summary

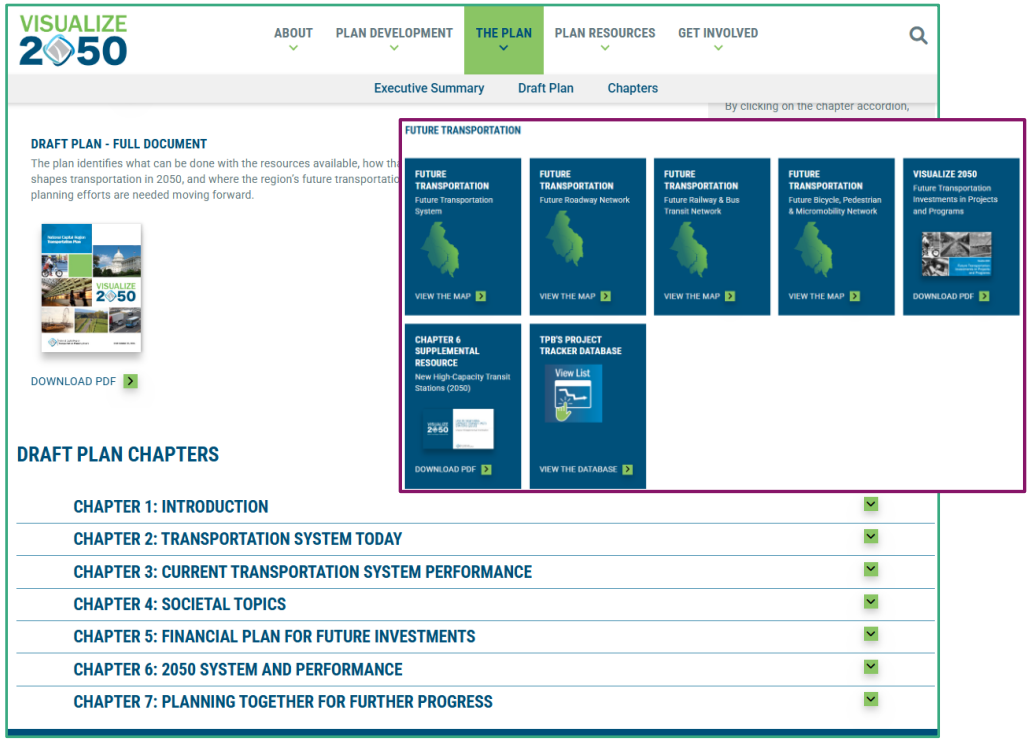
- 12-page PDF/flipbook
- Captures plan highlights: growth, mode share and performance today/future, finance, future challenges

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



VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 1: Introduction

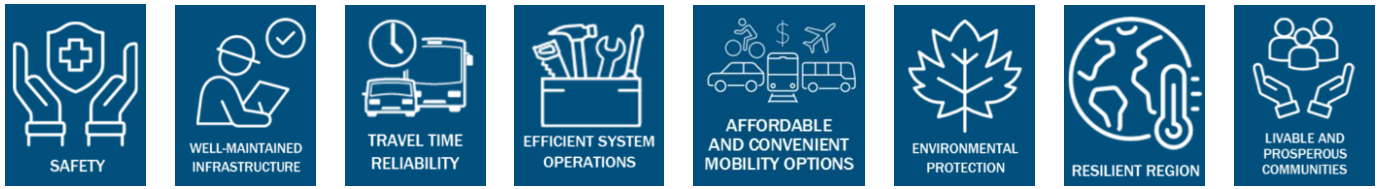
The National Capital Region today:

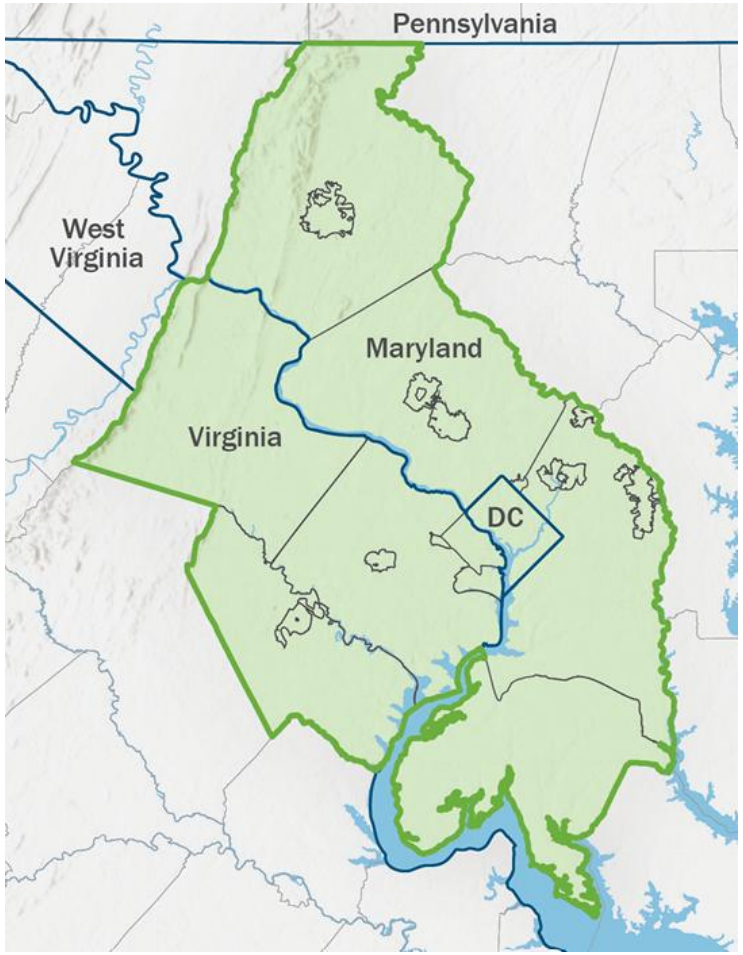
- 5.9 million people
- 3.3 million employees
- 3,500 sq mi. and 22 local jurisdictions

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

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

TPB's Goals



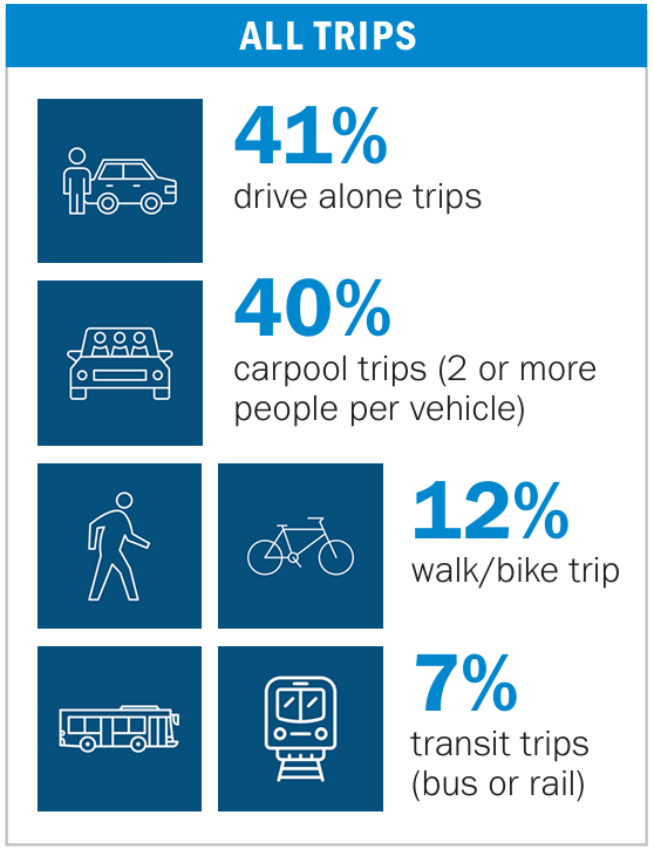


VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 2: Transportation System Today

Recognizing how the region's current multimodal system lays the foundation for future improvements

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



VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 2: Transportation System Today

Roadways

- More than 17,000 road lane miles
- 97 million vehicle miles daily
- 15 million vehicle person trips

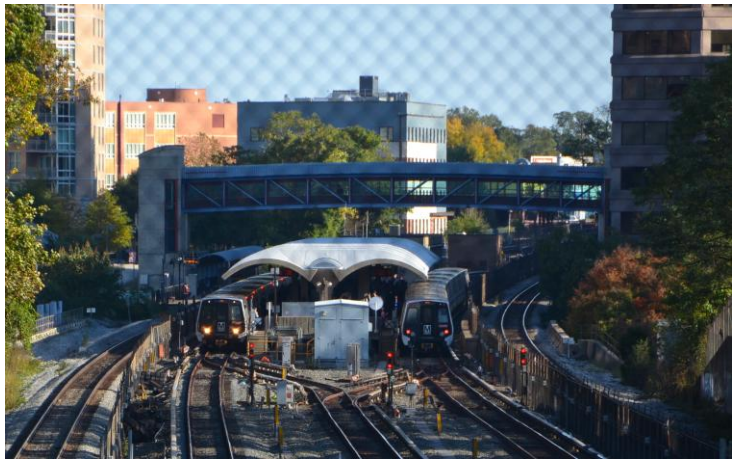
Railways

- 318-miles of high-capacity rail transit
- WMATA, MARC, VRE move over 492,000 people
- 260 miles of Class I mainline track
- Carries 6.7 million tons of freight per year

Bus Transit

- 15 local bus systems and 3 commuter bus systems
- Over 450,000 local and commuter bus trips daily

Maryland Department of Transportation/Flickr


Adam Fagen/Flickr

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 2: Transportation System Today

Pedestrians
- 752 miles of National Capital Trail Network as of 2023

Bicyclists and Micromobility
- Over 800 miles of bike paths & over 400 miles of bike lanes

Transportation Demand Management
- Commuter Connections reduced daily vehicle trips by nearly 100,000

Surface Connections to Airports
- The three commercial airports together supported 38 million boardings in 2023 and are all accessible by high-capacity transit

Mike Maguire/Flickr


Rachel Beyerle/COG

VISUALIZE 2050
National Capital Region Transportation Plan

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
- Safety and Security
- Maintenance
- System Management

MV Jantzen/Flickr

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 3: Current Transportation System Performance

Access

Drivers and Passengers

- 1 million jobs accessible within a 45-minute commute

Transit

- 400,000 jobs accessible within a 45-minute commute

Pedestrians

- 63% of residents and 72% of jobs are located within ½ mile of the existing portions of the National Capital Trail Network (NCTN)

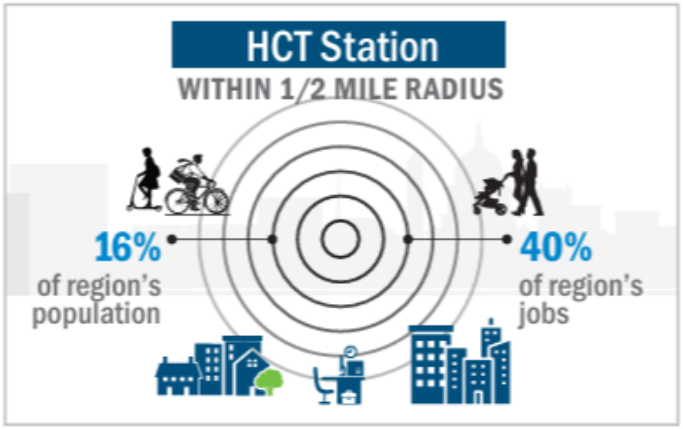
Bicyclists and Micromobility

- 6.1 million Capital Bikeshare trips in 2024

Remote Access

- Telework, virtual learning, online shopping

Pierre Gaunaurd/COG

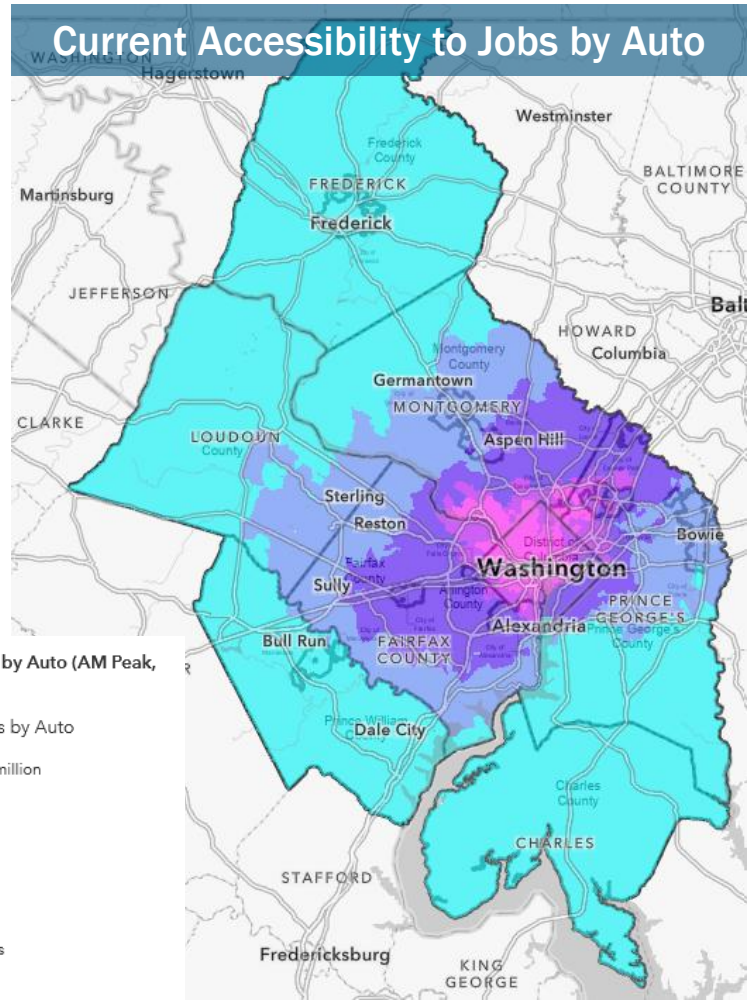


VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 3: Current Transportation System Performance

Online Resource

Current Accessibility to Jobs by Auto

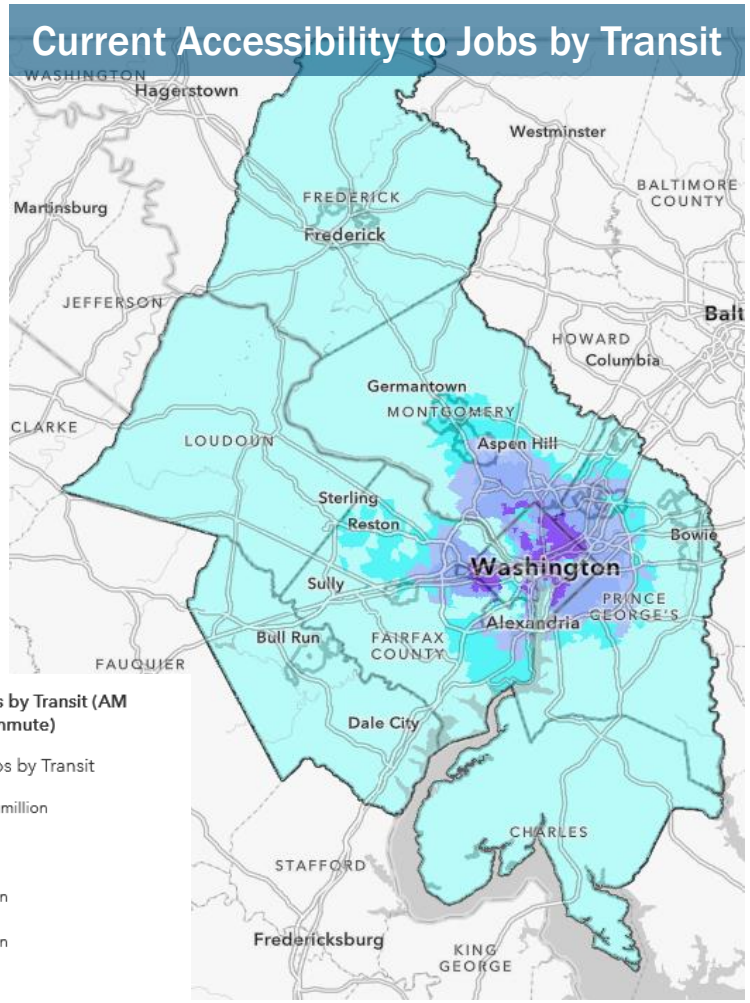


Today Access to Jobs by Auto (AM Peak, 45-Minute Commute)

Today Access to Jobs by Auto

- Greater than 2.0 million
- 1.5 - 2.0 million
- 1.0 - 1.5 million
- 0.5 - 1.0 million
- 0 - 0.5 million jobs

Current Accessibility to Jobs by Transit



Today Access to Jobs by Transit (AM Peak, 45-Minute Commute)

Today Access to Jobs by Transit

- Greater than 1.0 million
- 0.75 - 1.0 million
- 0.50 - 0.75 million
- 0.25 - 0.50 million
- 0 - 250,000

VISUALIZE 2050
National Capital Region Transportation Plan

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

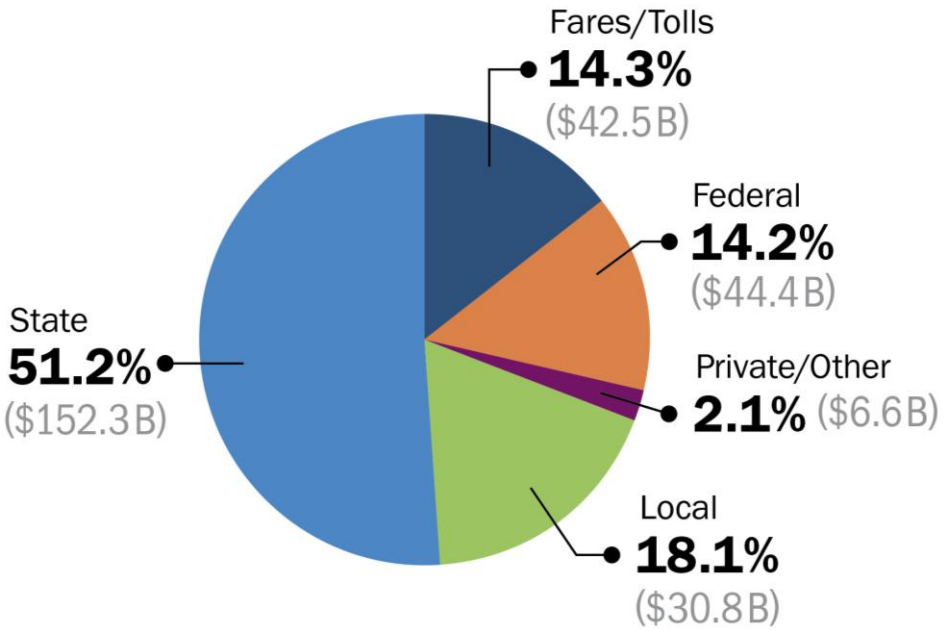
**See online maps associated with these topics.*

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 5: Financial Plan for Future Investments

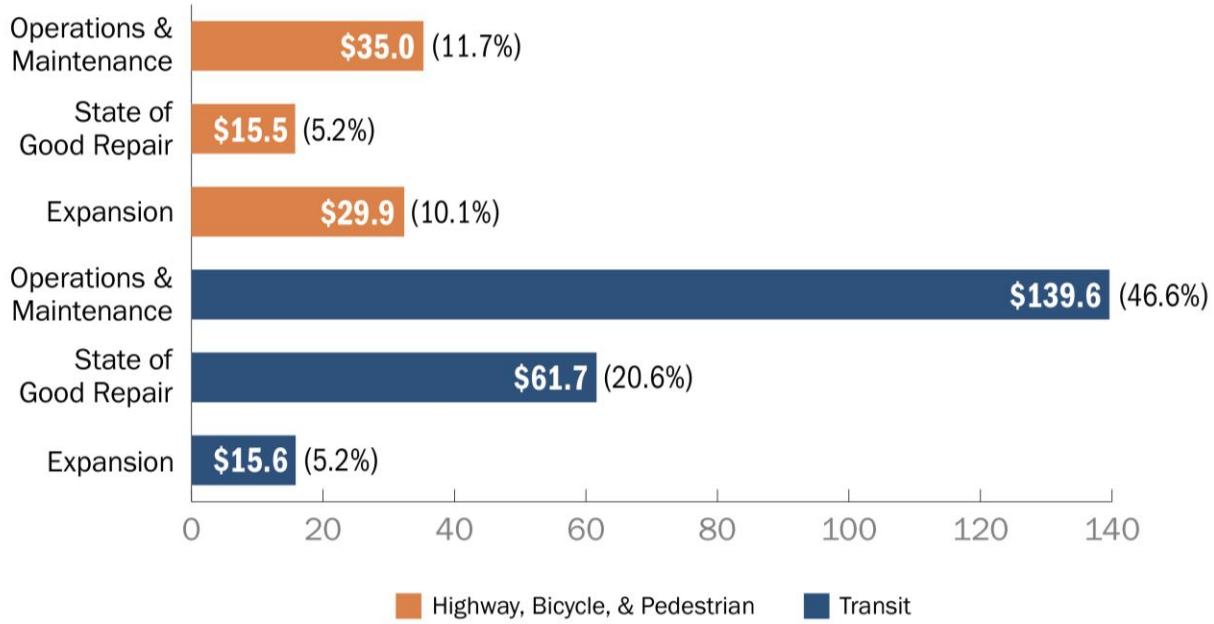
Highlights the region's investment plan given current and reasonably anticipated funding availability

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



Total = $297.4 (Billions)

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



VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 5: Financial Plan for Future Investments

Project/Program Alignment with TPB Goals

VISUALIZE 2050
Future Transportation Investments in Projects and Programs

DOWNLOAD PDF

	SAFETY	WELL-MAINTAINED INFRASTRUCTURE	TRAVEL TIME RELIABILITY	EFFICIENT SYSTEM OPERATIONS	AFFORDABLE AND CONVENIENT MOBILITY OPTIONS	ENVIRONMENTAL PROTECTION	RESILIENT REGION	LIVABLE AND PROSPEROUS COMMUNITIES
Discrete Projects	244	187	278	168	278	132	127	209
Project Groupings	30	27	27	17	27	24	12	24
Ongoing Programs	65	56	66	56	66	55	24	58
Total	339	270	371	241	371	211	163	291

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 5: Financial Plan for Future Investments

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

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 6: 2050 System & Performance

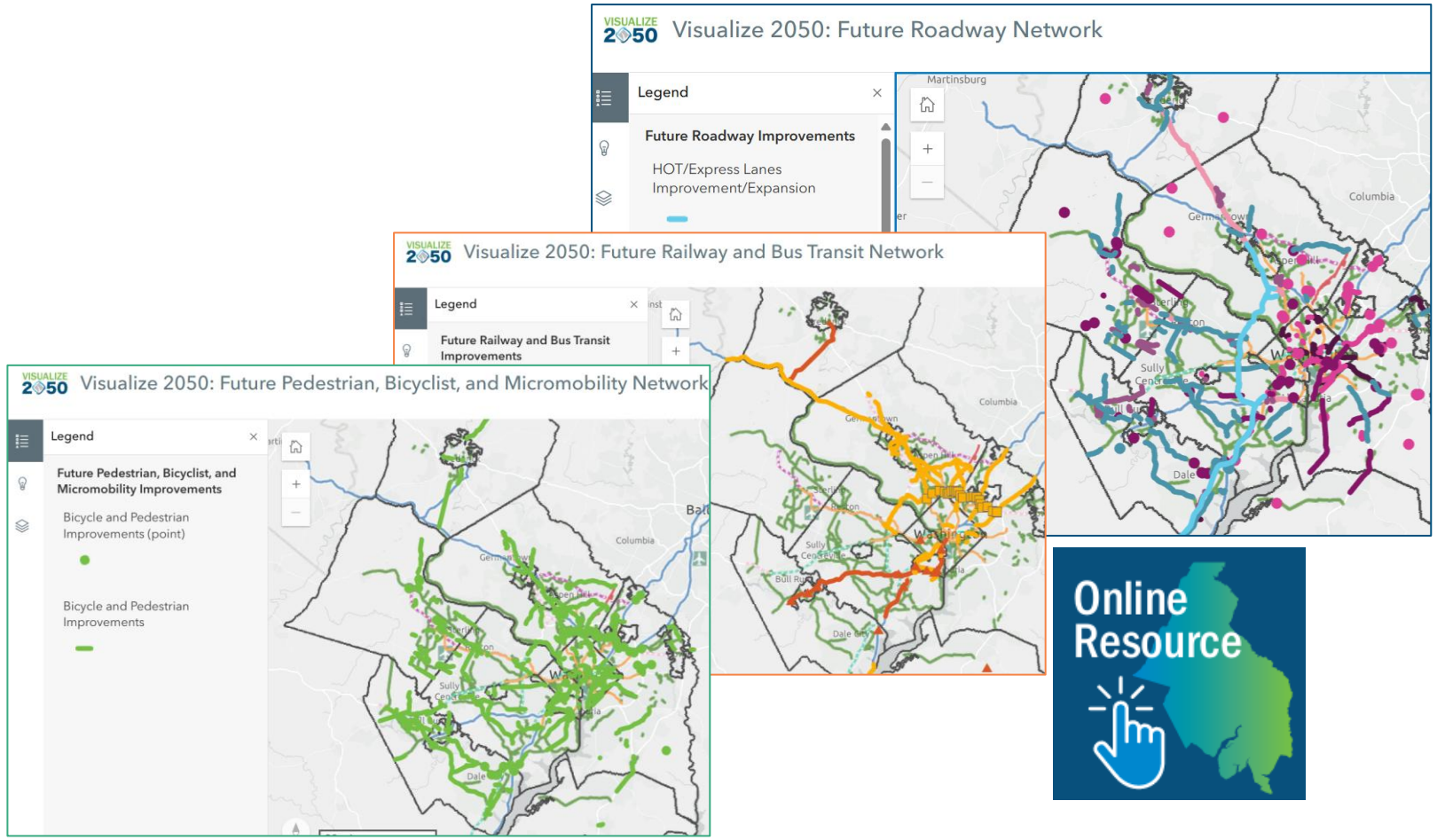
Envisioning the National Capital Region's 2050 transportation system and its future performance

Future Transportation Network

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

2050 System Performance

- Access
- Congestion
- Environmental Forecasts



VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 6: 2050 System & Performance

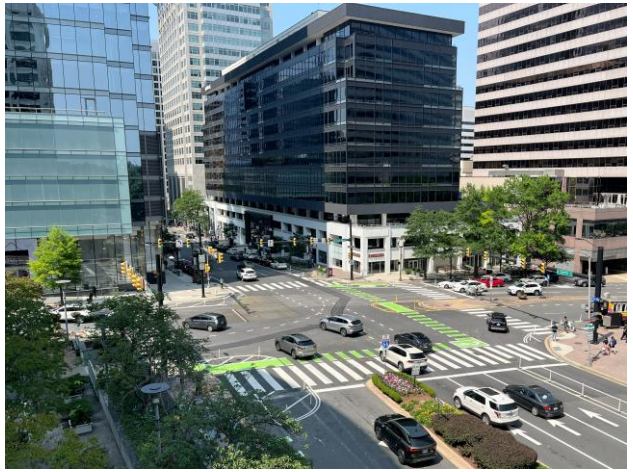
Roadways
- Over 600 added lane miles
- Conversion of 10 HOV miles to HOT
- Upgraded streetlight technologies and intersections

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

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 6: 2050 System & 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

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 6: 2050 System & Performance

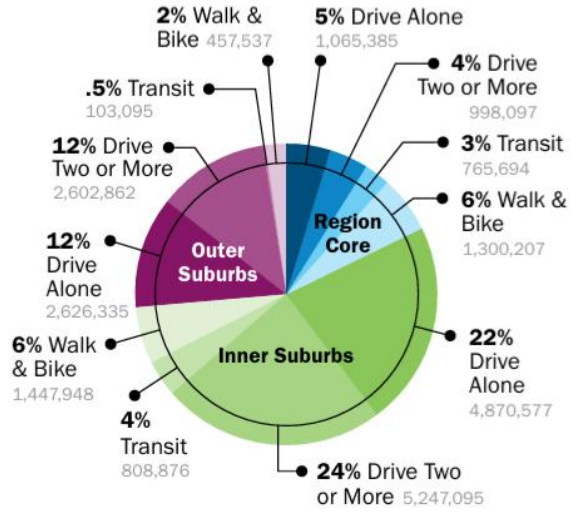
Geography plays a large role in #trips by mode in 2050

Regional Core
- Highest share of transit, walking, and biking trips
- Travel evenly split between driving (50%) and alternative modes (50%)
- More than half work trips by transit

Inner Suburbs
- Most trips (56%) originate from Inner Suburbs
- Transit use: 7% all trips and 24% work trips

Outer Suburbs
- Auto-based work trips from the Outer Suburbs are greater than all work trips combined from the Regional Core
- Transit use: 0.5% all trips and 2% work trips
- Walking & biking: 2% all trips and .4% work trips

Percent of All Trips by Mode and Geography, 2050



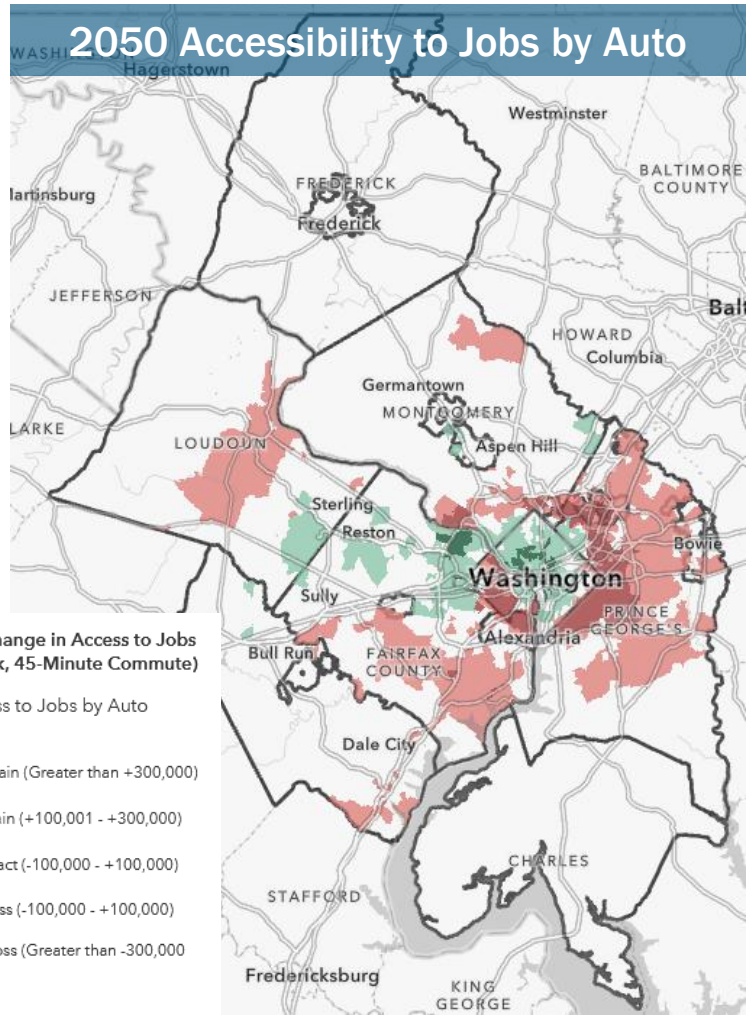
Total Trips: 22,293,708

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 6: 2050 System & Performance

Online Resource

2050 Accessibility to Jobs by Auto

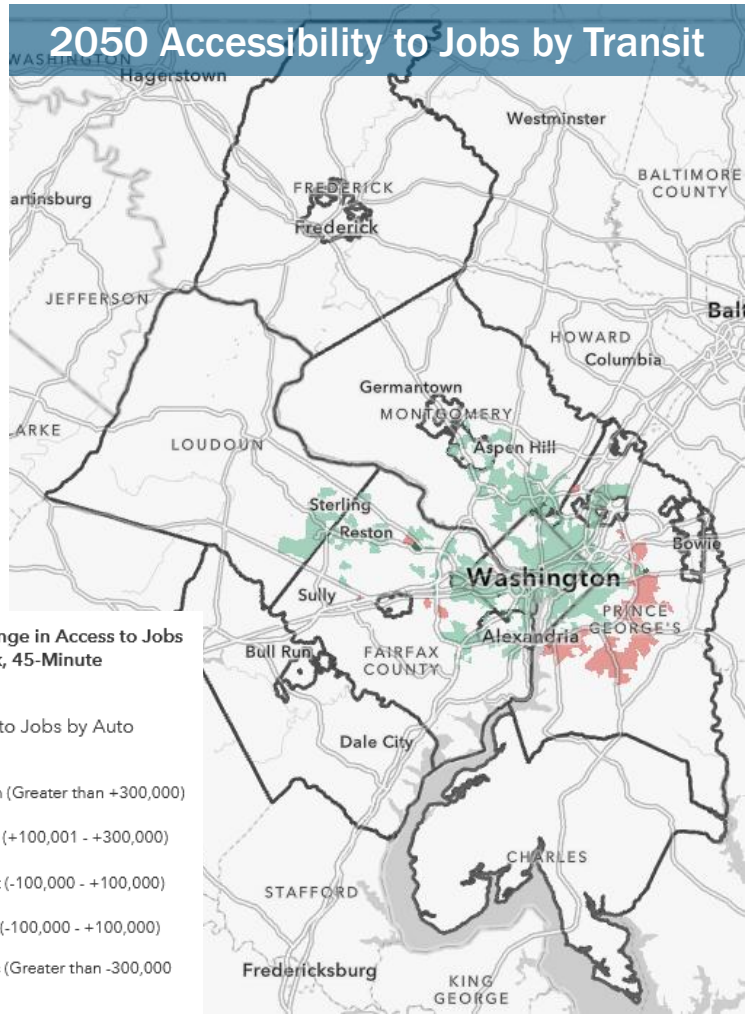


Today to 2050 Change in Access to Jobs by Auto (AM Peak, 45-Minute Commute)

Change in Access to Jobs by Auto (Today to 2050)

- Significant Gain (Greater than +300,000)
- Moderate Gain (+100,001 - +300,000)
- Minimal Impact (-100,000 - +100,000)
- Moderate Loss (-100,000 - +100,000)
- Significant Loss (Greater than -300,000 Jobs)

2050 Accessibility to Jobs by Transit



Today to 2050 Change in Access to Jobs by Transit (AM Peak, 45-Minute Commute)

Change in Access to Jobs by Auto (Today to 2050)

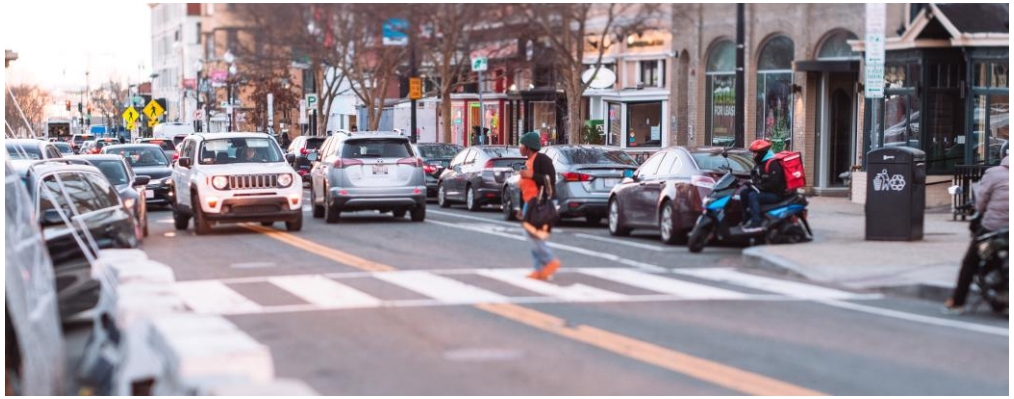
- Significant Gain (Greater than +300,000)
- Moderate Gain (+100,001 - +300,000)
- Minimal Impact (-100,000 - +100,000)
- Moderate Loss (-100,000 - +100,000)
- Significant Loss (Greater than -300,000 Jobs)

VISUALIZE 2050
National Capital Region Transportation Plan

Chapter 7: Planning Together for Further Progress

Challenges will exist beyond the planned investments

Ben Schumin/Flickr



Emma K Alexandra/Flickr

VISUALIZE 2050
National Capital Region Transportation Plan

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

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

VISUALIZE 2050
National Capital Region Transportation Plan

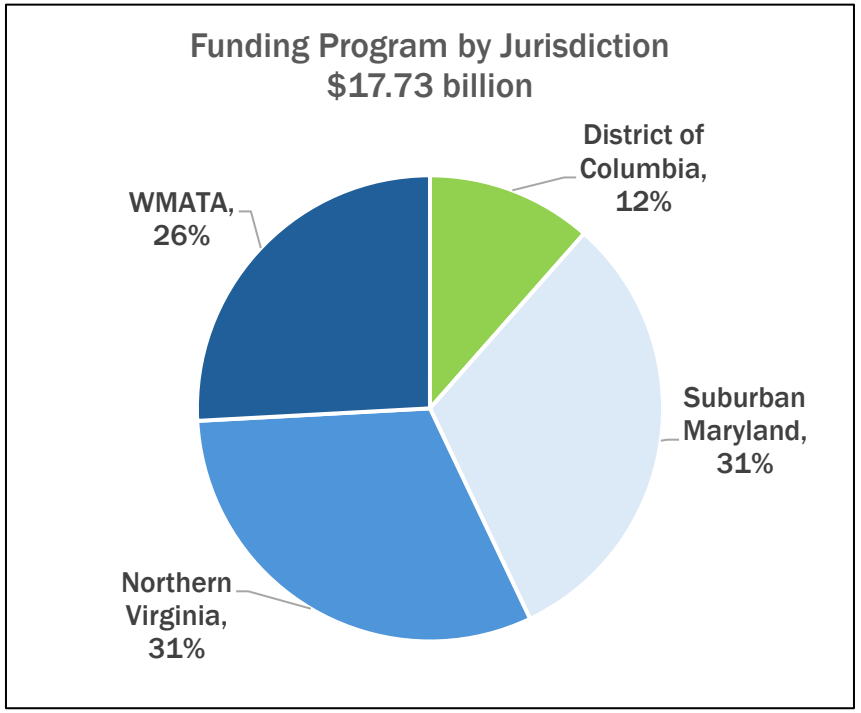
FY 2026-2029 Transportation Improvement Program

VISUALIZE 2050
National Capital Region Transportation Plan

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



VISUALIZE 2050
National Capital Region Transportation Plan

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

Visualize 2050 and the FY 2026-2029 TIP

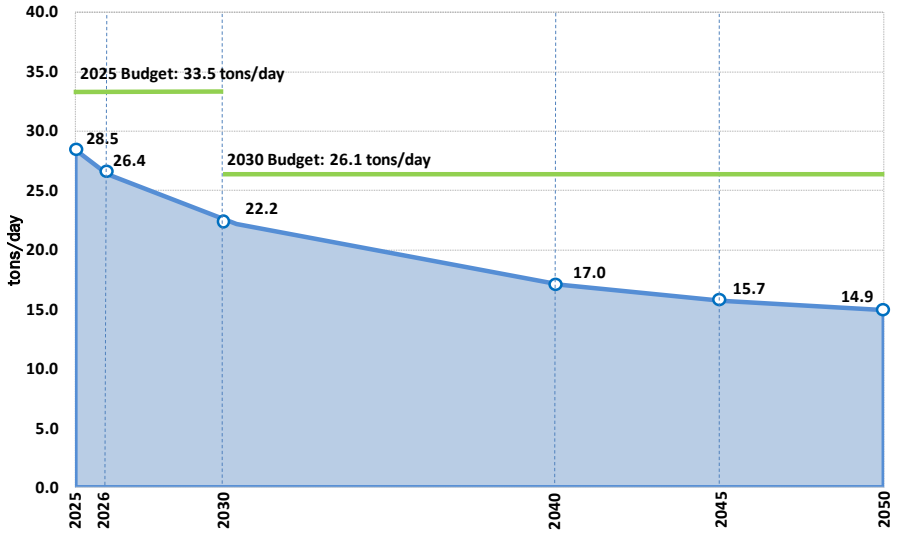
VISUALIZE 2050
National Capital Region Transportation Plan

Air Quality Conformity Background

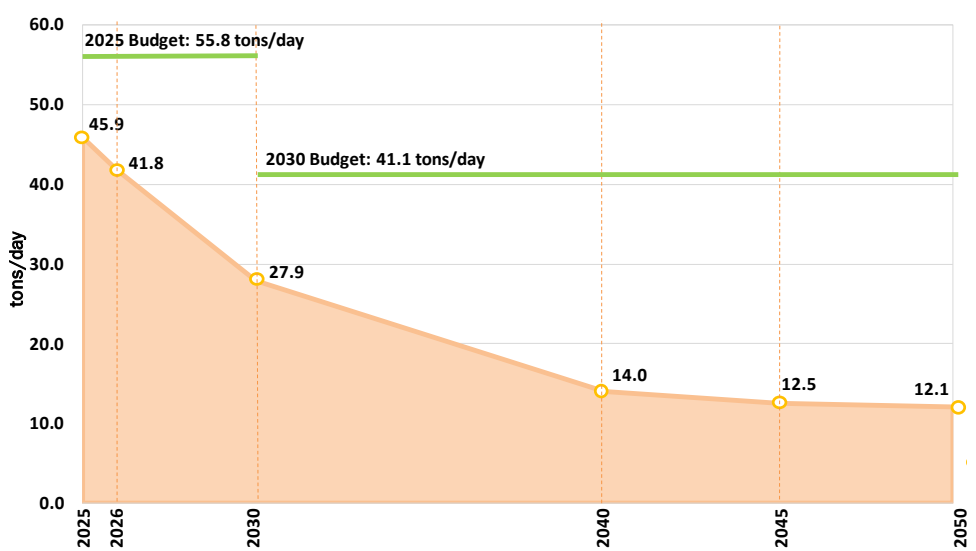
- The Washington, DC-MD-VA non-attainment area (TPB region + Calvert County) only has conformity requirements for ground-level Ozone.
- Vehicles do not emit Ozone directly – it results from two pollutants, Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_X), combining in sunlight to form Ozone.
- The MVEBs set limits for these two precursor pollutants.
- The TPB models total mobile source (on-road) emissions to ensure they are below the MVEBs.

Air Quality Conformity Results

Volatile Organic Compounds (VOCs)



Nitrogen Oxides (NO_X)



- The conformity analysis utilizes the region's travel demand model and the EPA's Motor Vehicle Emissions Simulator (MOVES) to calculate the 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).

VISUALIZE 2050
National Capital Region Transportation Plan

Next Steps

2025	
November	**11/13/2025** TIP Forum with TPB, WMATA, and District, Maryland, and Virginia DOTs. **11/19/2025** TPB briefed on all aspects of Visualize 2025 and the FY 2026-2029 TIP and comments received with responses, to date. **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.

VISUALIZE 2050
National Capital Region Transportation Plan

Cristina Finch

TPB Transportation Planner
(202) 962-3335
cfinch@mwcog.org

mwcog.org/tpb

Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002