

FY 2021-2024 Transportation Improvement Program (TIP)

and the 2020 Amendment to the Visualize 2045 Long Range Transportation Plan and the Air Quality Conformity Analysis

Andrew Austin, TPB Transportation Planner
Jane Posey, TPB Transportation Engineer

Transportation Planning Board
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The Year of the TIP

Why are we doing this now?

- The TPB produces a new TIP every two years
 - Every new TIP requires a conformity analysis
 - Opened a call for minor updates to Visualize 2045 to keep the plan current
 - Any revision to the plan requires the TPB to self-certify its planning process
- The Harmonic Convergence of 2021–2024
- Support of TPB Leadership



What is the TIP?

- A key for states to unlock federal funding for transportation infrastructure in metropolitan areas
- Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) provide formula funding based on population, population density, geography, and many other factors
- Exercise requiring the state DOTs to demonstrate fiscal constraint and transparency
- Opportunity to highlight project prioritization
- Implementation of Visualize 2045



Federal Requirements of the TIP

- Must cover at least a **4-year period** and be updated every 4 years
- Funding in the first two fiscal years must be “available and committed”
- Project funding in the TIP should be based on a investment plan to attain a set of federally approved performance targets



Input Sources for the FY 2021–2024 TIP

Those investment plans are found in the 6-year budgets of the three DOTs, and WMATA and their respective Statewide Transportation Improvement Programs (STIPs)

DDOT	<ul style="list-style-type: none">• Concurrently developing FY 21–24 STIP
MDOT	<ul style="list-style-type: none">• Inputs held over from FY 19–24 Consolidated Transportation Plan and the FY 19–24 TIP• Development of their FY 21–24 STIP expected later this year
VDOT	<ul style="list-style-type: none">• Inputs from their draft FY 21–24 STIP to be finalized and approved this fall
WMATA	<ul style="list-style-type: none">• Inputs from their DRAFT FY 21–26 Capital Improvement Program – currently out for review.



Development Schedule for the TIP

2019

- May 3:** Technical Inputs Solicitation issued for the FY 2021–2024 TIP and the 2020 update to the Visualize 2045 long-range transportation plan
- July 24:** TPB approves projects submitted for air quality conformity analysis of the TIP and plan update
- Dec. 20:** Programming data for TIP projects due

2020

- Jan. 31–Mar. 1:** 30-day Public comment period
- March 18:** TPB asked to approve the FY 2021–2024 TIP, 2020 updates to Visualize 2045 and the Air Quality Conformity Analysis



STIPs and the TPB's TIP

- Following TPB approval, the District, Maryland, and Virginia incorporate their respective portions of the TPB's TIP into their own STIPs
 - Opportunities for public involvement at state level
- STIPs are submitted to FHWA and FTA for approval
 - Must remain consistent with TPB's TIP

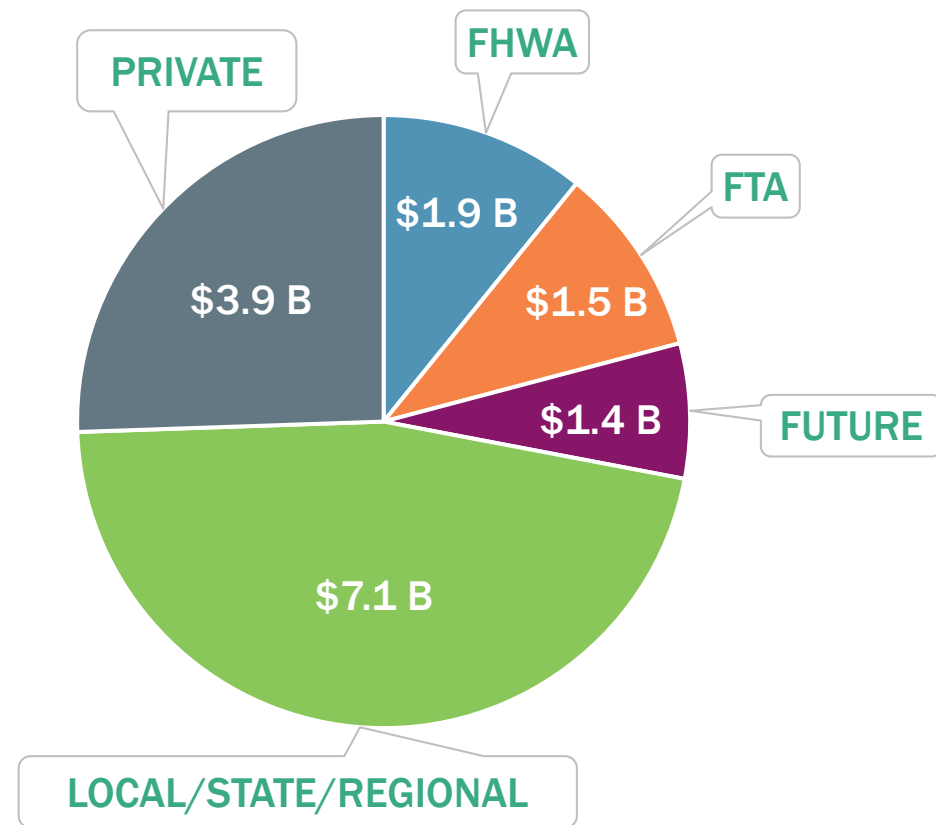


Financial Plan for the FY 2021-2024 TIP

Four Year Funding Total

\$15.8 Billion

- \$1.9 B – Federal Highway Administration (Title I)
- \$1.5 B – Federal Transit Administration (Title III)
- \$1.4 B – Future Federal (Advanced Const., GARVEE)
- \$7.1 B – State and Local
- \$3.9 B – Private, P3



Additional Analysis of the TIP

- Performance-Based Planning and Programming (PBPP)
 - *Highway Safety* (performance vs. targets)
 - Pavement and Bridge Conditions (targets only)
 - Highway System (targets only)
 - Congestion Mitigation and Air Quality Program (targets only)
 - *Transit Asset Management* (performance vs. targets)
- Complete Streets Documentation
- Bicycle and Pedestrian Accommodations



Air Quality Conformity: Findings

- Ozone Season VOC within Mobile Budget
- Ozone Season NOx within Mobile Budget



Minor Update to the Plan

- No Financial Analysis
- No Performance Analysis



Pollutants

- Volatile Organic Compounds (VOC)
- Nitrogen Oxides (NO_x)

- Greenhouse Gases

NOTE: Greenhouse gases are analyzed to track regional trends. They are not officially part of the conformity analysis.



Technical Approach

Analysis Years:

2019, 2021, 2025, 2030, 2040, 2045



Technical Approach

Key Technical Inputs and Tools:

- Round 9.1a Cooperative Forecasts – *NEW*
- “Regionally Significant” Transportation Projects - *NEW*
- Version 2.3.78 Travel Demand Model
- 2016 Vehicle Registration Data (VIN)
- EPA’s MOVES2014b Mobile Emissions Model



Major Project Changes - District of Columbia

Bicycle Lanes, Districtwide

- 9th St. NW from Florida Ave. to Constitution Ave.
- Dalecarlia Pkwy. NW from Loughboro Rd. to Westmoreland Circle
- Florida Ave. NE from 2nd St. to 14th St.
- K St. NE from 1st St. to 8th St.
- M St. SE from Half St. to 11th St.
- Mount Olivet Rd. NE from Brentwood Pkwy. to West Virginia Ave.
- Nebraska Ave. NW from New Mexico Ave. to Loughboro Rd.
- Pennsylvania Ave. SE from 2nd St. to 17th St.



Major Project Changes - District of Columbia (Continued)

Peak Period Bus-Only Lanes

- H St. NW from 14th St. to 19th St.
- I St. NW from 13th St. to Pennsylvania Ave.

K ST. NW Transitway

- Construct two segments from 9th St. to 12th St. and from 12th St. to 21st St.



Major Project Changes - Virginia

- Modify I-495 Capital Beltway Express Lanes
 - Construct 3 additional ramps near Dulles Toll Road interchange
 - Continuation of Peak Period NB Shoulder Lane
- Construct reversible ramp from I-95 at Opitz Dr.
- Construct VA 28 Manassas Bypass from VA 234 Sudley Rd. to VA 28 Centreville Rd.



Major Project Changes - Virginia (Continued)

- Widen VA 55 from US 29 to the Town of Haymarket
- Widen VA 123 from VA 267 Dulles Access Rd. to VA 634 Great Falls St.
- Widen VA 286 Fairfax County Parkway from US 29 Lee Hwy. to Rolling Rd.
- Construct West End Transitway Phase II (Southern Segment) from Van Dorn Street Metro to Landmark Mall

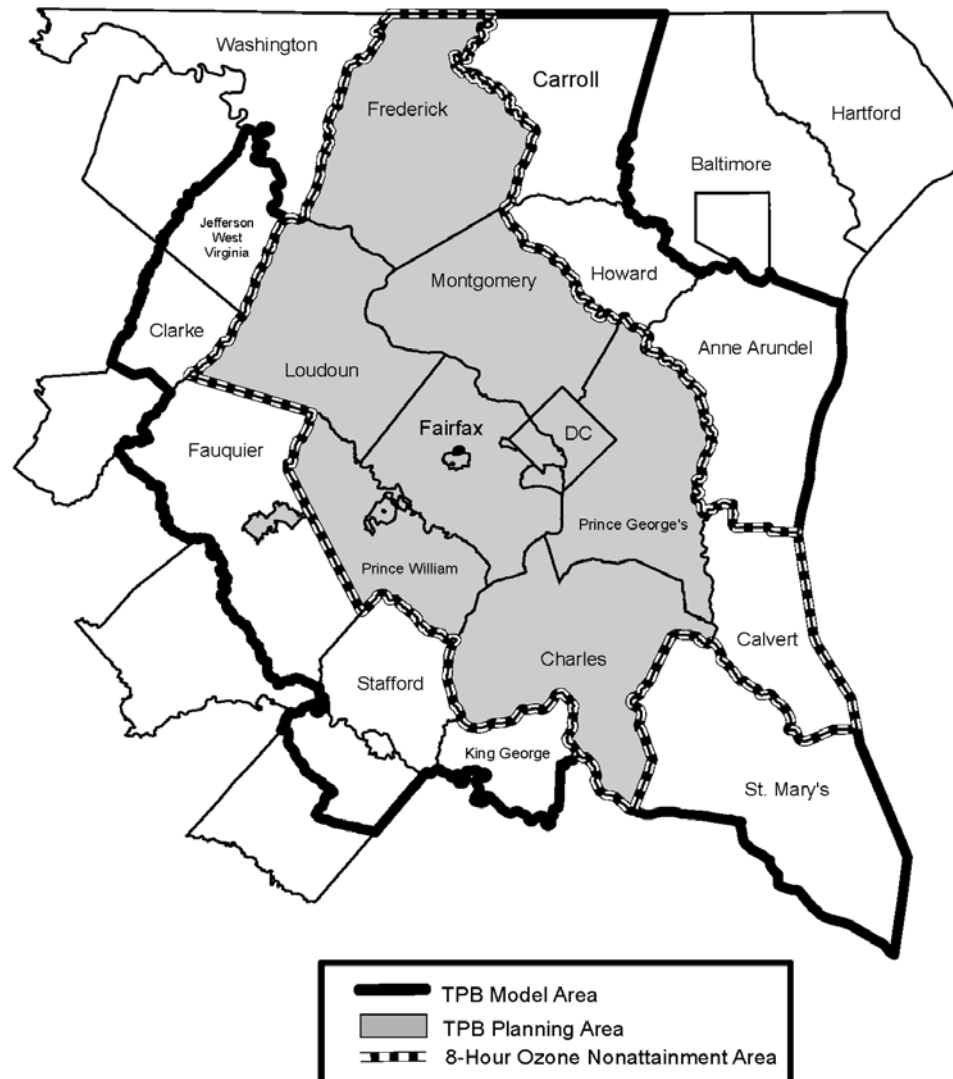


Round 9.1a Cooperative Forecasts

- Updates to BRTB & FAMPO Planning Areas Only
- Adjustments to Employment Factors
 - Provide Consistent Definition For All Jurisdictions
 - Based on 2015 Bureau of Labor Statistics Data, Census Bureau Data, and Military Personnel Data
- Updated External, Miscellaneous, and Airport Trip Forecasts

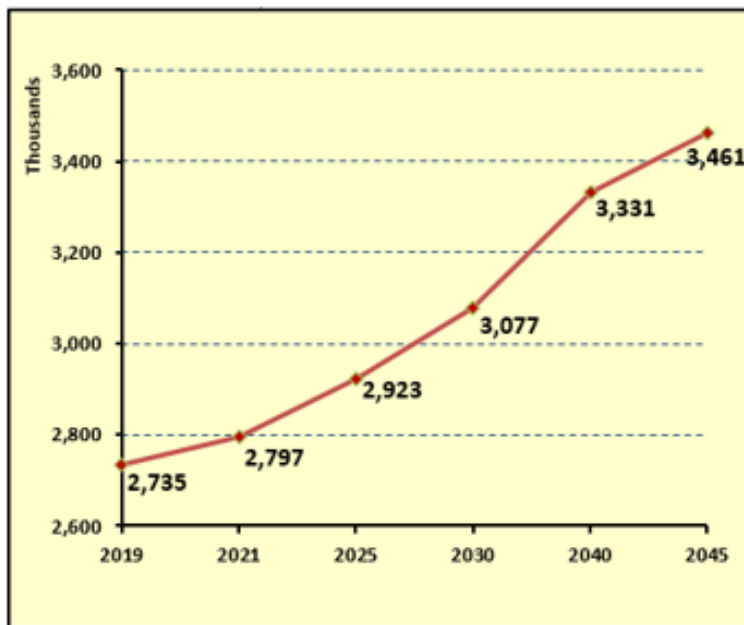


TPB Planning Areas



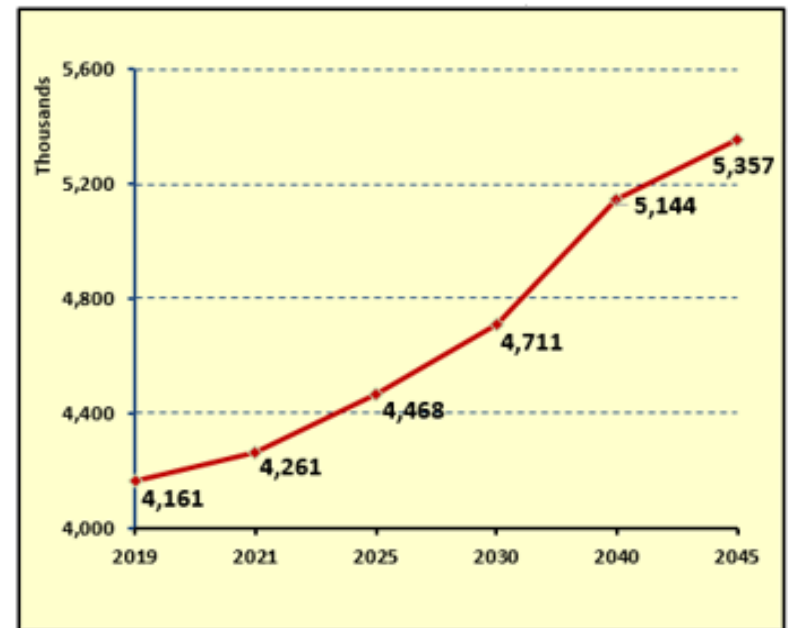
Round 9.1a Cooperative Forecasts

Households
(in thousands)



NOTE: Values are for the modeled area

Employment*
(in thousands)



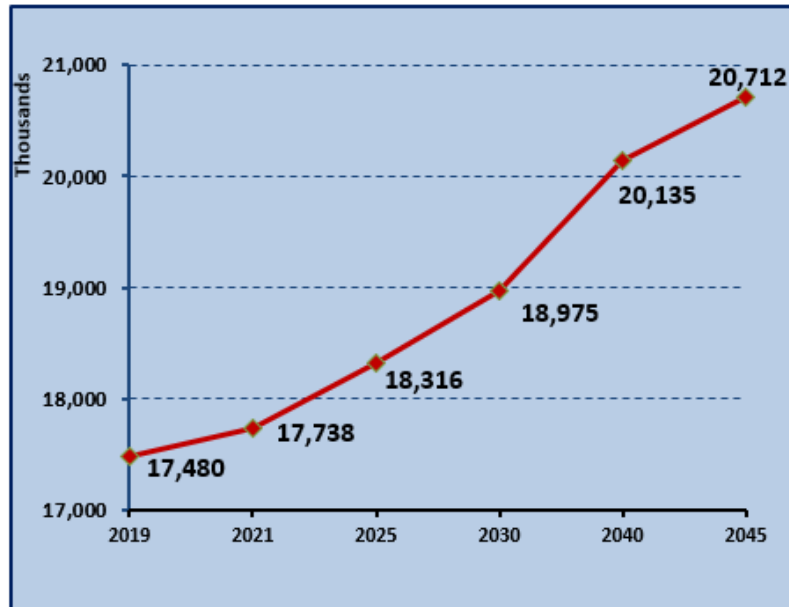
*Includes employment definition adjustment



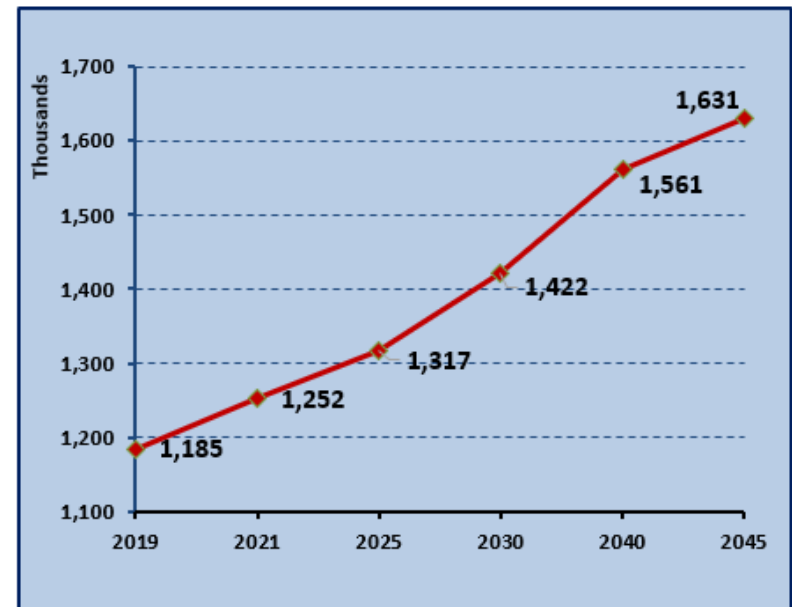
Travel Demand Summaries

Modeled Area Trips

Vehicle Trips
(in thousands)

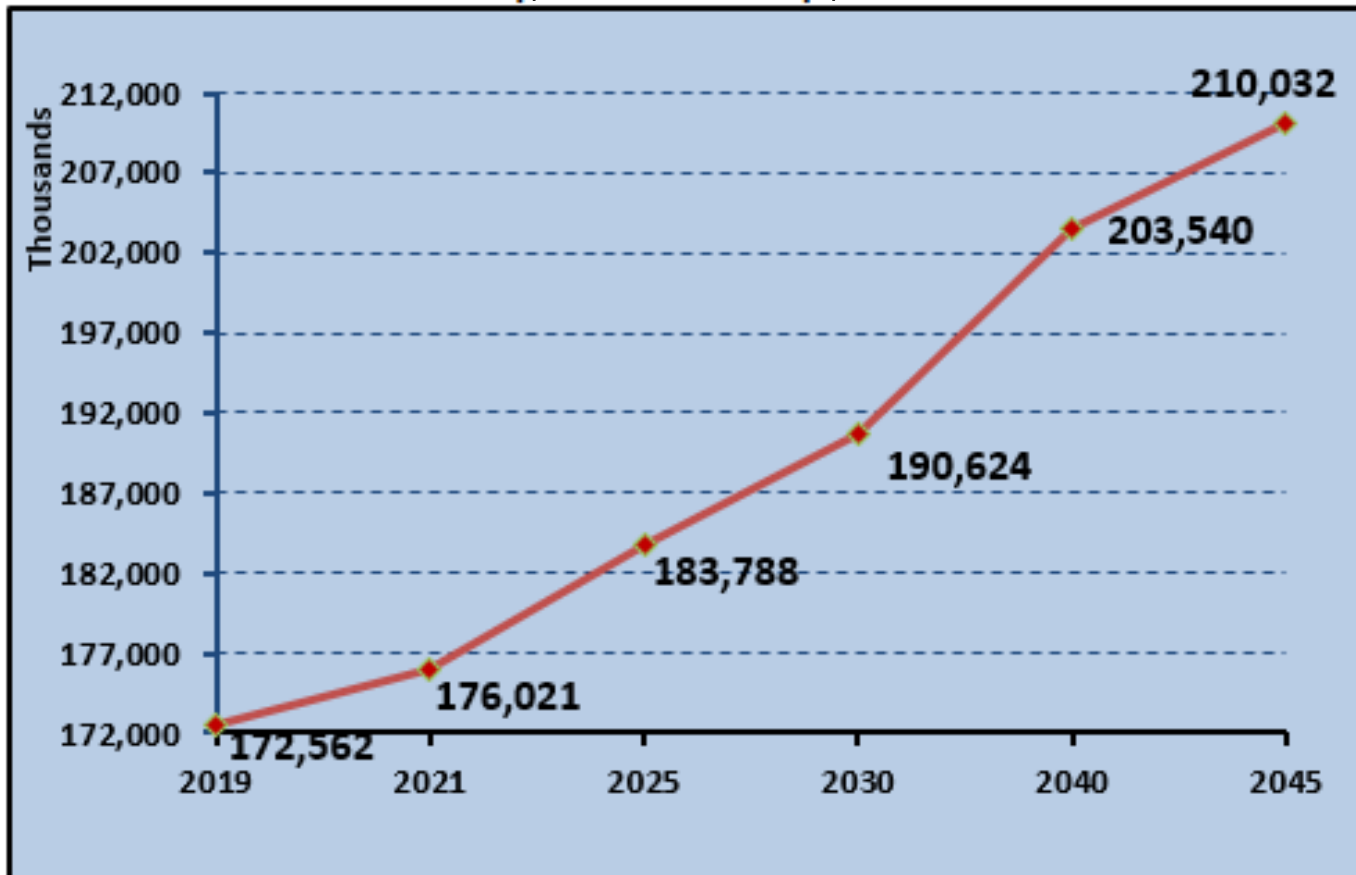


Transit Trips
(in thousands)



Travel Demand Summary

Modeled Area Vehicle Miles Traveled
(in thousands)



Mobile Budgets

From the August 6, 2018 Federal Register – Notice of Adequacy Finding for the Mobile Budgets in the 2008 Ozone Maintenance SIP:

“The MVEBs ...that include a transportation buffer will be used only as needed in situations where the conformity analysis must be based on *different data, models, or planning assumptions, including, but not limited to, updates to demographic, land use, or project-related assumptions,* than were used to create the first set of MVEBs in the maintenance plan”



Mobile Budgets vs. Conformity

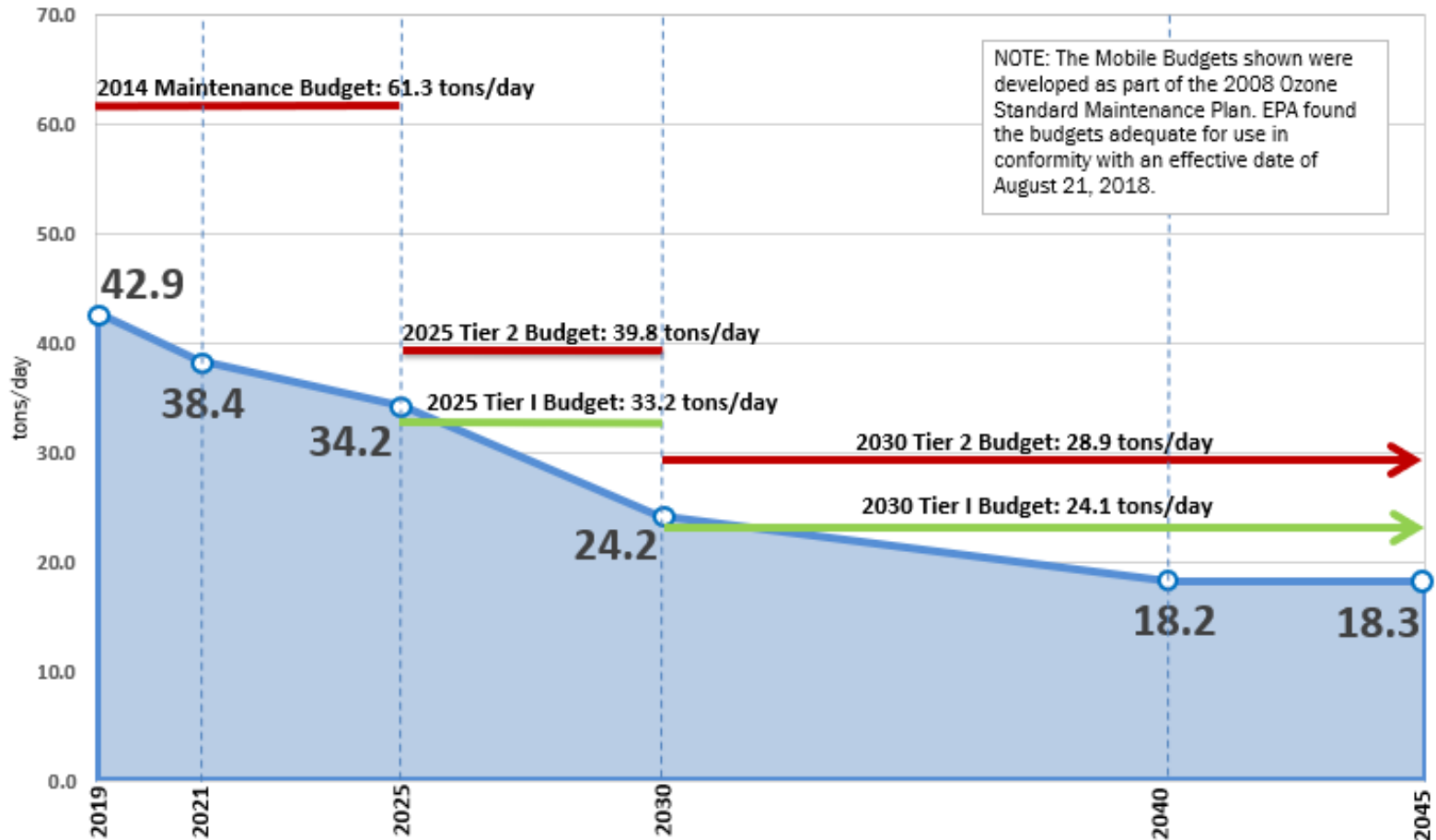
	Maintenance Plan Mobile Budgets	2020 Amendment to Visualize 2045 Conformity Emissions
Cooperative Forecasts	Round 9.0	Round 9.1a
Vehicle Fleet	2014 VIN	2016 VIN
Travel Demand Model	Version 2.3.66	Version 2.3.78
Project Inputs	2016 CLRP	2020 Amendment to Visualize 2045
Metrorail Constraint	yes	no

NOTE: A sensitivity analysis conducted in 2018 showed that the change to the vehicle fleet had the most significant impact on changes to emissions



Mobile Source Emissions

Ozone Season VOC

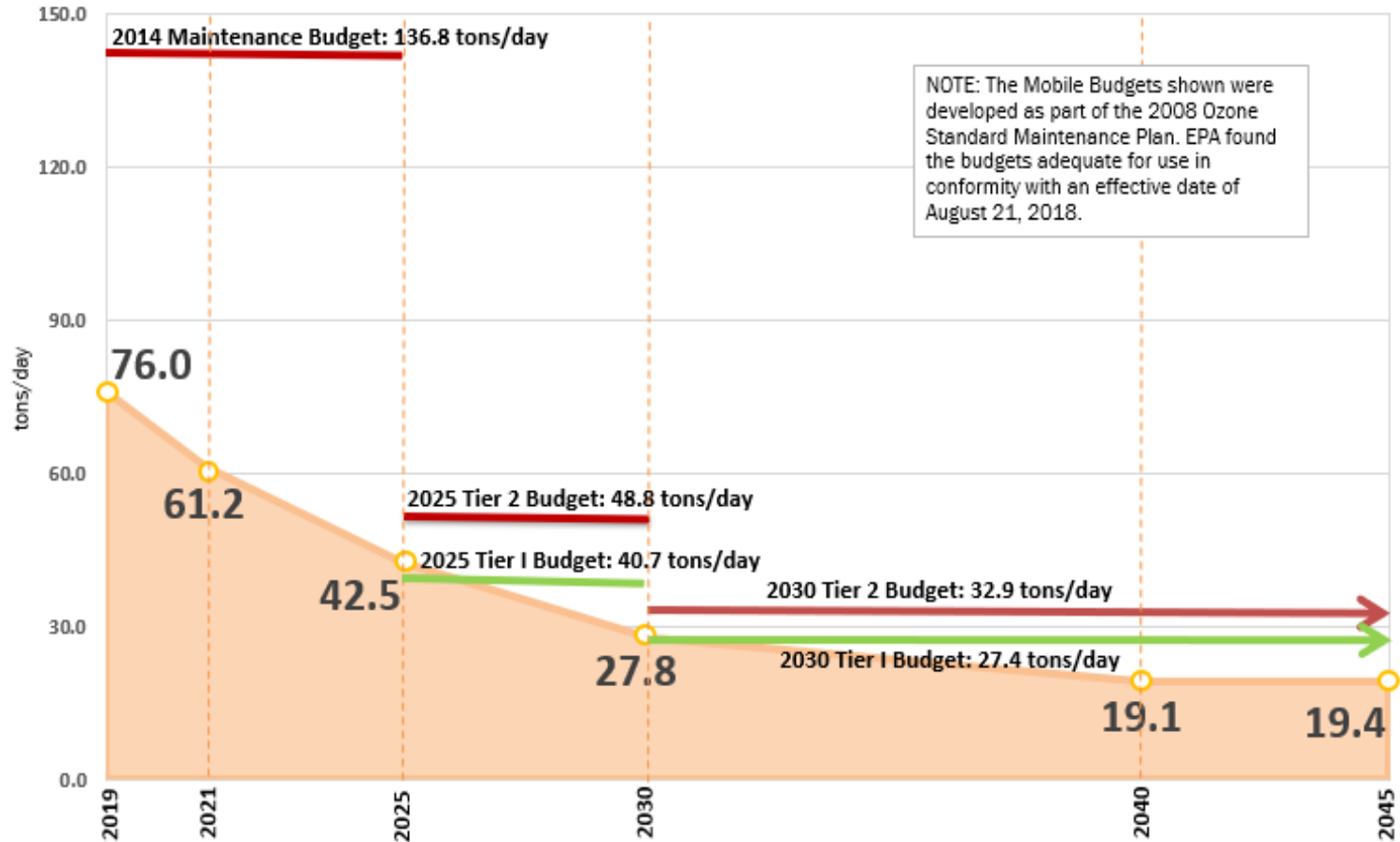


TCMs and TERMS are not included in totals.



Mobile Source Emissions

Ozone Season NOx



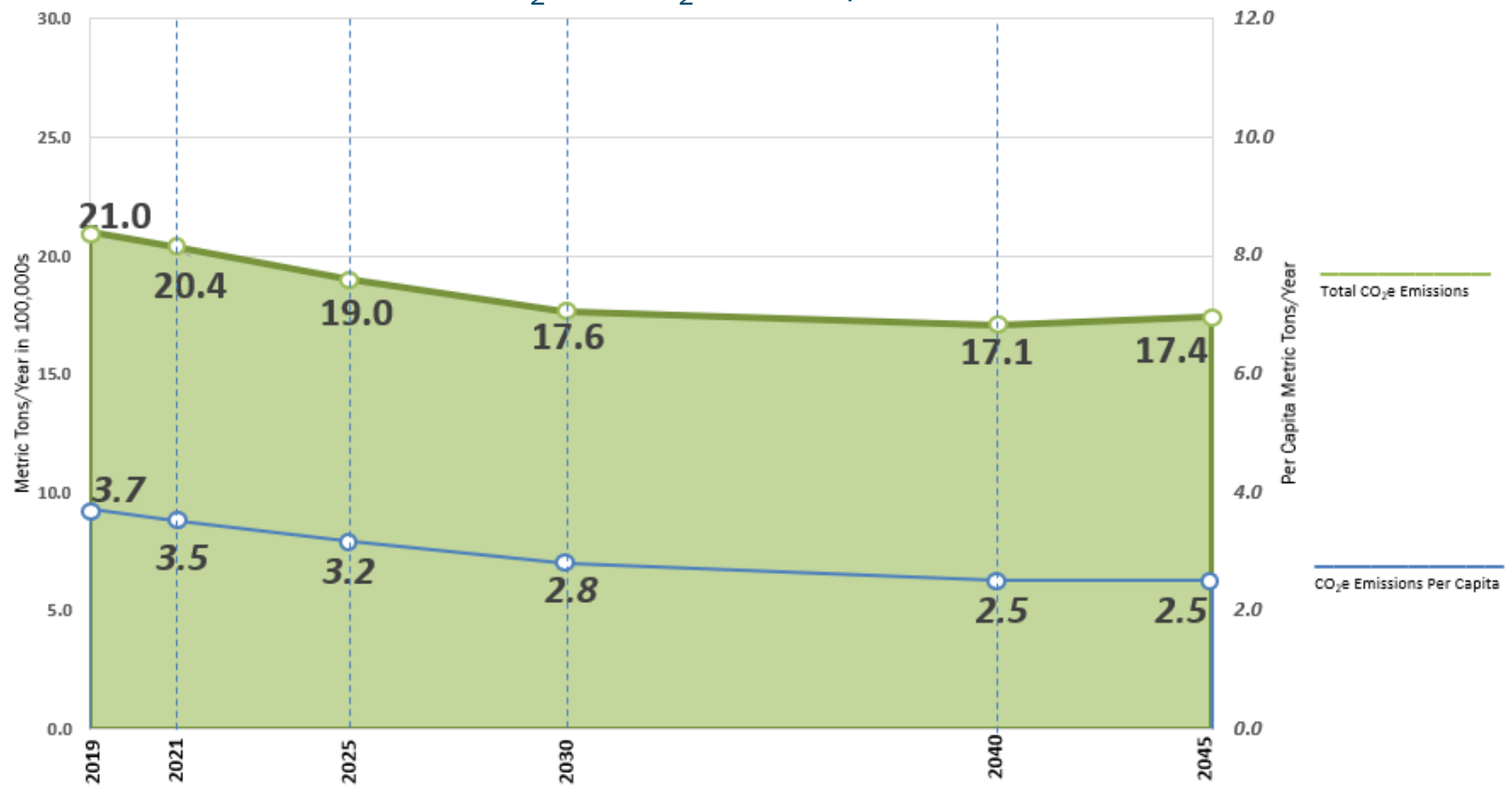
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Greenhouse Gases

2020 Amendment to Visualize 2045

Greenhouse Gas
Mobile Source Emissions
CO₂ and CO₂ e Per Capita



Project Updates

- Long Bridge
- Franconia-Ococoquan 3rd Track
- Alexandria 4th Track



Next Steps

- Public Comment Jan 31 – March 1
- TPB Briefing: Conformity Findings Feb 19
- MWAQC Briefing: Conformity Findings Feb 26
- TPB Action: March 18
 - ✓ Conformity Determination
 - ✓ 2020 Amendment to Visualize 2045
 - ✓ FY 2021-2024 TIP
 - ✓ Statement of Certification



Andrew Austin

TPB Transportation Planner
(202) 962-3353
aaustin@mwkog.org

Jane Posey

TPB Transportation Engineer
(202) 962-3331
jposey@mwkog.org

mwkog.org/tpb

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

