visualize2045
A LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION

# Environmental Justice Analysis of the Long-Range Plan

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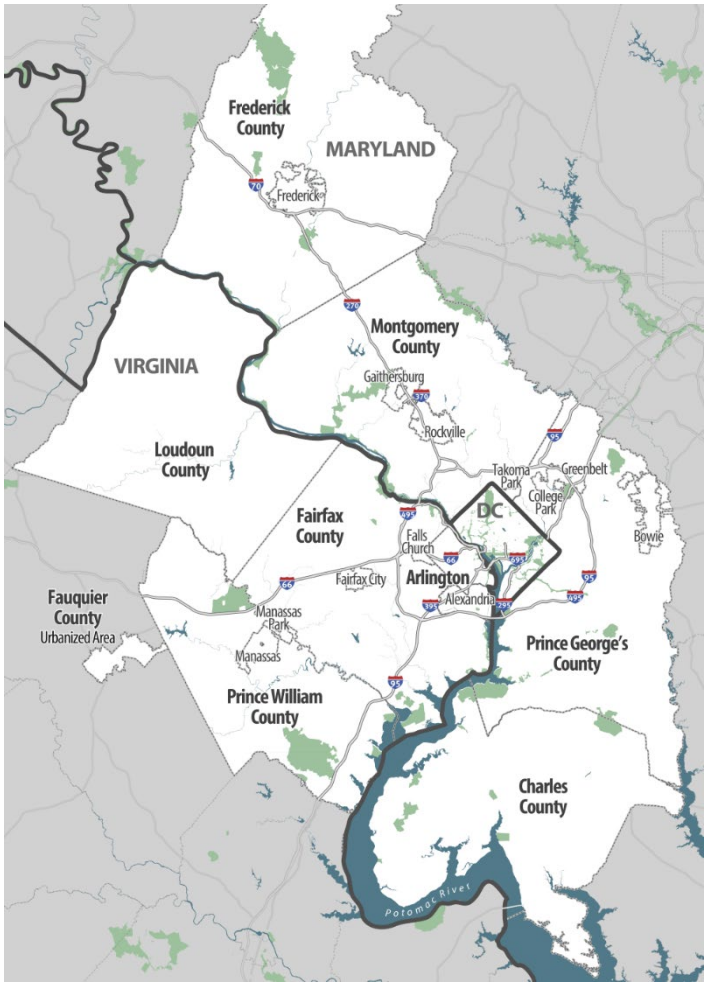
# Purpose

Share the results of the environmental justice (EJ) analysis and provide the audience with an understanding of approaches MPOs can take to meet Title VI nondiscrimination and environmental justice analysis requirements.

# About the TPB and its Planning Area

- Federally designated Metropolitan Planning Organization (MPO) for the Washington region
- 3,000 square miles in area
- Home to more than 5 million people and 3 million jobs
- Members include:
  - State transportation agencies
  - 23 local jurisdictions
  - State and DC legislatures
  - WMATA
  - Others



# TPB Long-Range Planning Approach

## TOP-DOWN/BOTTOM-UP PROCESS

### Transportation Planning Board

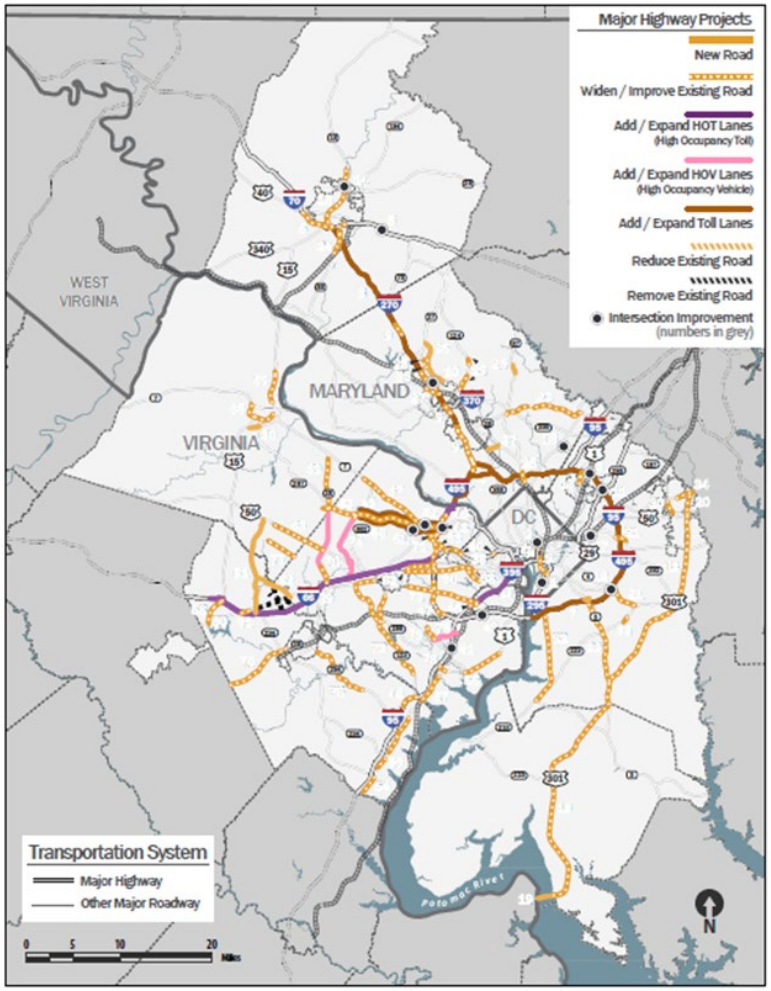
- Transportation Planning Goals
- Regional Transportation Priorities Plan
- Scenario Analysis
- CLRP Performance Analysis including Environmental Justice
- Congestion Management Reports

### State/Local Governments

- Land use, Economic, and Environmental Policies and Priorities
- Needs assessment
- Transportation Plans and Programs
- Capital Budget Priorities

# Visualize 2045 (LRP)

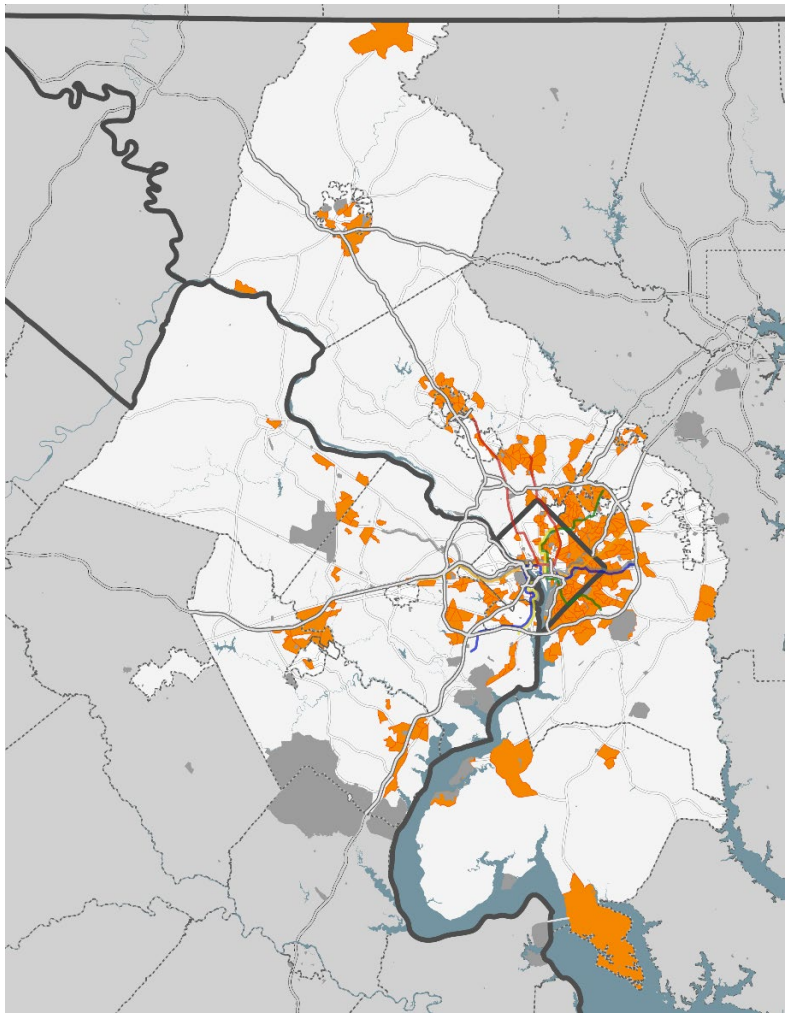
- What the region **aspires to do** if more resources were available
- What the region **can do** with current levels of funding and,
- What the region **must do** to meet federal requirements



# EJ Analysis Phases

**Phase 1:** Identification of concentrations of low-income and/or minority populations ("Equity Emphasis Areas").

**Phase 2:** Using the travel demand model, analyze the LRP using multiple accessibility and mobility measures.

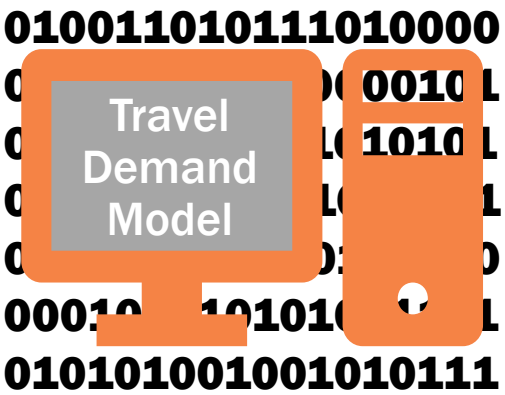


# EJ Phase 2 Process

Constrained Element Projects

Land-Use Forecasts

Geography (Region, EEAs, or Rest of Region)




2019 and 2045 Performance Measures Data

# Environmental Justice Analysis Measures

**Accessibility Measures**

1. Average number of jobs accessible by auto
2. Average number of jobs accessible by all transit
3. Average number of jobs accessible by High Capacity Transit
4. Average number of jobs accessible by bus
5. Population with walkable access to High Capacity Transit
6. Population with walkable access to bus service

**Mobility Measures**

7. Average commute time by auto
8. Average commute time by transit
9. Average travel time to closest hospital by auto
10. Average travel time to closest hospital by transit

# Environmental Justice Test

**Determination Test**

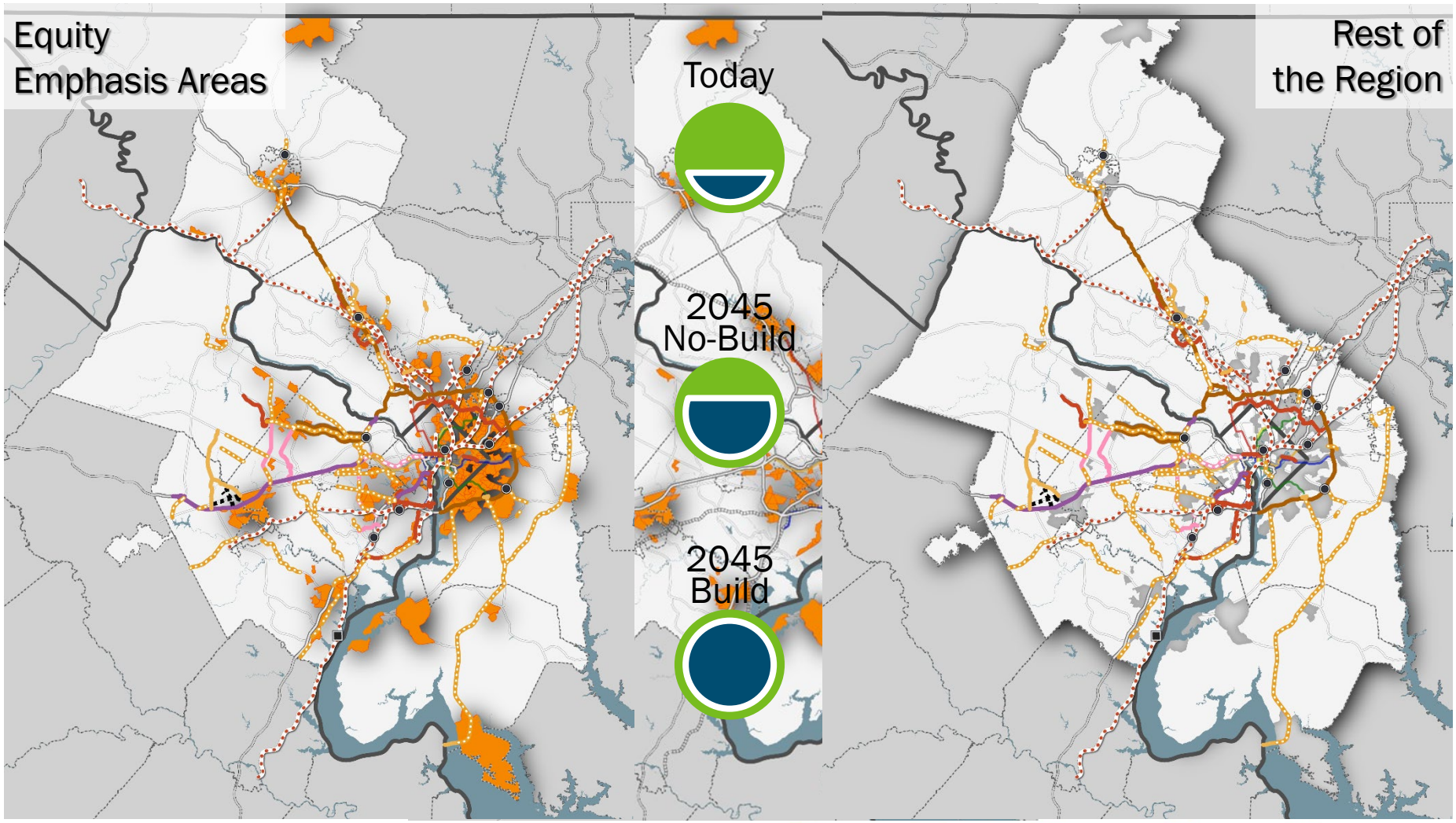
Impact would be considered disproportionately high and adverse when:

1) The burden is predominately borne by EEAs **and**
2) Appreciably more severe or greater in magnitude in EEAs than the Rest of the Region

**Bottom line:**

**EEAs must experience a Burden while the Rest of the Region Benefits**

# Recap of EJ Analysis Process



# EJ Analysis Results: Overview

**Determination**

**Planned projects of Visualize 2045 would not have a disproportionate and adverse impact on low-income and minority populations**

On ten performance measures:

- ✓ **Seven measures with similar Benefits**
- ✓ **One measure with disproportionate Benefits**
- • **Two measures with similar Burdens**

# EJ Analysis Results: Similar Benefits

Similar **Benefits** for EEAs and the Rest of the Region

| Measure | | Impact of Visualize 2045 Absolute | Impact of Visualize 2045 Percent |
|---|---|---|---|
| Avg. # of jobs accessible by auto | EEAs | +16 | +1.6% |
| | Rest of the Region | +54 | +6.8% |
| Avg. # of jobs accessible by transit | EEAs | +198 | +36.7% |
| | Rest of the Region | +126 | +42.0% |
| Avg. # of jobs accessible by High Capacity Transit | EEAs | +138 | +70.2% |
| | Rest of the Region | +78 | +62.9% |
| Avg. # of jobs accessible by bus | EEAs | +46 | +46.3% |
| | Rest of the Region | +34 | +49.4% |

Note: Figures in thousands

# EJ Analysis Results: Similar Benefits, cont.

Similar **Benefits** for EEAs and the Rest of the Region

| Measure | | Impact of Visualize 2045 Absolute | Impact of Visualize 2045 Percent |
|---|---|---|---|
| Pop. with walkable access to High Capacity Transit | EEAs | +471 | +72.8% |
| | Rest of the Region | +540 | +55.2% |
| Pop. with walkable access to bus service | EEAs | +380 | +25.5% |
| | Rest of the Region | +594 | +22.7% |
| Avg. travel time to closest hospital | EEAs | -0.3 | -0.9% |
| | Rest of the Region | -0.1 | -0.2% |

Note: Figures in thousands

# EJ Analysis Results: Benefits and Burdens

Disproportionate **Benefits** for EEAs

| Measure | | Impact of Visualize 2045 Absolute | Impact of Visualize 2045 Percent |
|---|---|---|---|
| Avg. commute time by transit | EEAs | -1.2 | -2.2% |
| | Rest of the Region | +1.0 | +1.9% |

Similar **Burdens** for EEAs and the Rest of the Region

| | | | |
|---|---|---|---|
| Avg. commute time by auto | EEAs | +4.7 | +11.1% |
| | Rest of the Region | +5.1 | +10.8% |
| Avg. travel time to closest hospital by auto | EEAs | +1.4 | +9.2% |
| | Rest of the Region | +1.7 | +10.1% |

Note: Figures in minutes

# Qualifiers for Findings

- Regional-level analysis whose findings are not applicable to particular EEA(s) or attributable to specific project, corridor, or sub-area
- Current location of EEAs remain unchanged in 2045
- Location and number of Hospitals remain unchanged in 2045
- This analysis does not consider more qualitative aspects like:

1. Safety and comfort
2. Reliability
3. Availability of information and ease of use
4. Language barriers

- Analysis does not examine the availability or quality of off-peak service

# Policy Observations

- ✓ Visualize 2045 complies with and passes federal EJ determination
- ✓ Parity between EEAs and Rest of the Region on most performance measures
- Opportunities exists for improved outcomes:
  1. EEA's advantage of access to more jobs by auto compared to Rest of Region is forecast to narrow
  2. No. of jobs accessible in EEAs by Bus only travel is half that accessible by High Capacity Transit
  3. Walk access to High Capacity Transit in EEAs and Rest of the Region is half that to Bus

# Policy Observations

| Measure | | 2019 | 2045 Plan-Build | Impact of Visualize 2045 Absolute | Impact of Visualize 2045 Percent |
|---|---|---|---|---|---|
| 1. Average number of jobs accessible by auto | EEAs | 1,029 | 1,045 | +16 | +1.6% |
| | Rest of the Region | 799 | 853 | +54 | +6.8% |
| 2. Average number of jobs accessible by transit | EEAs | 540 | 738 | +198 | +36.7% |
| | Rest of the Region | 302 | 428 | +126 | +42.0% |
| 3. Average number of jobs accessible by High Capacity Transit | EEAs | 197 | 335 | +138 | +70.2% |
| | Rest of the Region | 125 | 203 | +78 | +62.9% |
| 4. Average number of jobs accessible by bus | EEAs | 99 | 145 | +46 | +46.3% |
| | Rest of the Region | 70 | 104 | +34 | +49.4% |
| 5. Population with walkable access to High Capacity Transit | EEAs | 648 | 1,119 | +471 | +72.8% |
| | Rest of the Region | 977 | 1,517 | +540 | +55.2% |
| 6. Population with walkable access to bus service | EEAs | 1,492 | 1,872 | +380 | +25.5% |
| | Rest of the Region | 2,617 | 3,211 | +594 | +22.7% |

Note: Figures in thousands

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