

# PERFORMANCE BASED PLANNING & PROGRAMMING

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## Traffic Congestion and On-Road Emissions Performance Targets

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Transportation Planning Board  
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# Contents of Presentation

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- CMAQ Program Performance Measures: Overview, Data, and Forecast
    - Traffic Congestion: Peak Hour Excessive Delay
    - Traffic Congestion: Mode Share (non-SOV)
    - On road Emissions Reduction
  - CMAQ Program Performance Targets for Approval
- ❖ These performance measures and draft targets were briefed to the board at the May 16 meeting



# System Performance: CMAQ Program (Congestion Mitigation and Air Quality)

	Performance Measures
<b>CMAQ Program: Traffic Congestion</b>	<b>Peak Hour Excessive Delay (PHED)</b> – Annual hours of peak hour excessive delay per capita
	<b>Mode Share</b> - Percent of Non-SOV Travel on the National Highway System (NHS)
<b>CMAQ Program: Emissions Reduction</b>	<b>Emissions</b> - CMAQ-funded projects on-road mobile source total emission reductions for each applicable criteria pollutant and precursor



# Traffic Congestion: Peak Hour Excessive Delay Overview

The Peak Hour Excessive Delay (PHED) measure is the per capita excessive delay on all reported segments on the National Highway System in the urbanized area

- Excessive delay = when travel speed is less than 20 miles per hour or 60% of the posted speed limit

PHED is calculated by measuring <sup>1</sup> or forecasting:

- cumulative hours of excessive delay experienced by all people,
- travelling through all reported segments on the NHS in the urbanized area,
- during the peak period <sup>2</sup> (*even though titled Peak Hour*),
- for the full calendar year.

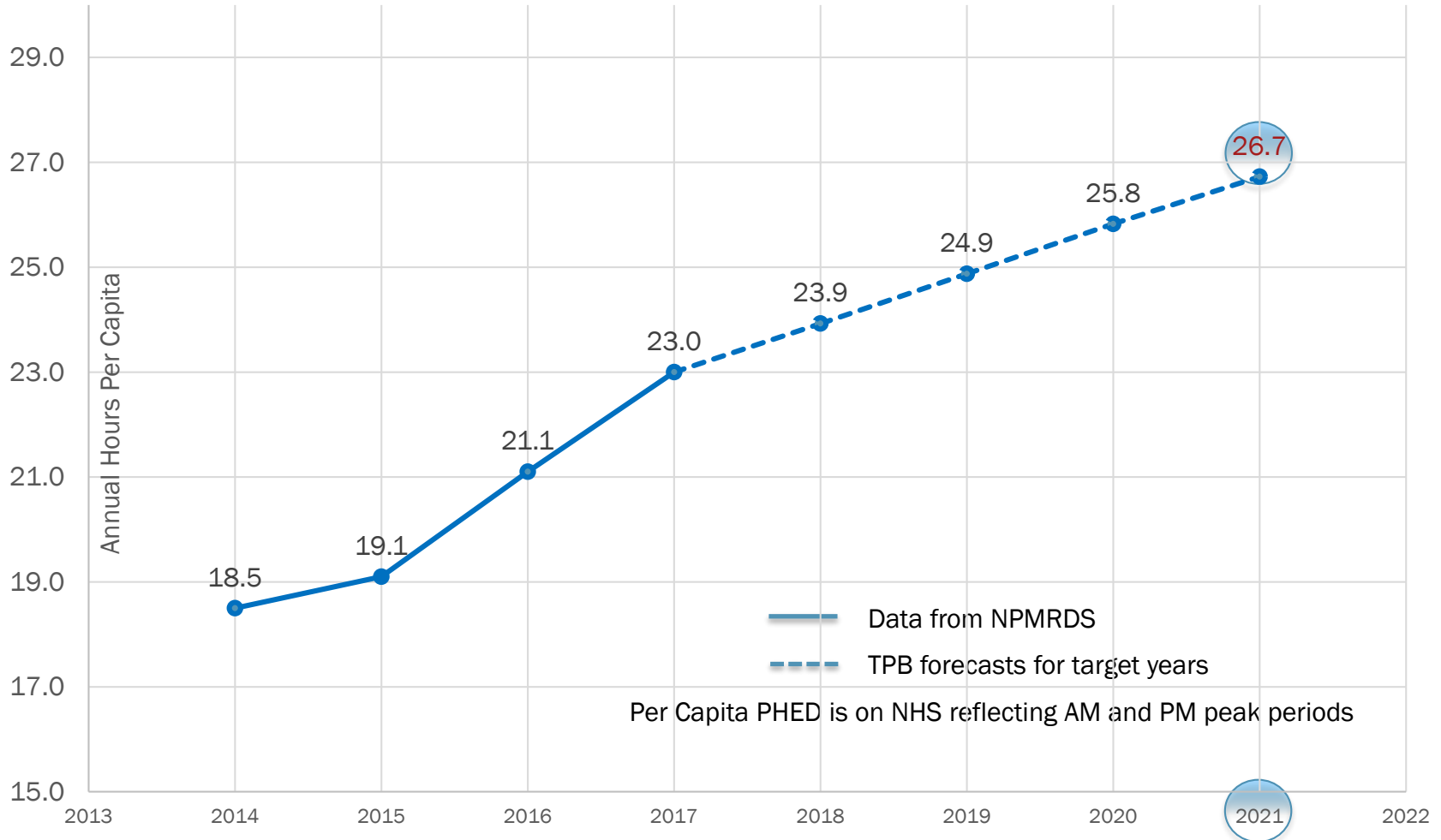
1. TPB urbanized area Peak travel hours:

Weekday morning: 6 a.m. to 10 a.m. And Weekday afternoon: 3 p.m. to 7 p.m.

2. Current year data collected using the National Performance Management Research Data Set (NPMRDS)



# Traffic Congestion: PHED - Recent Data and Short Term Forecast (Target)



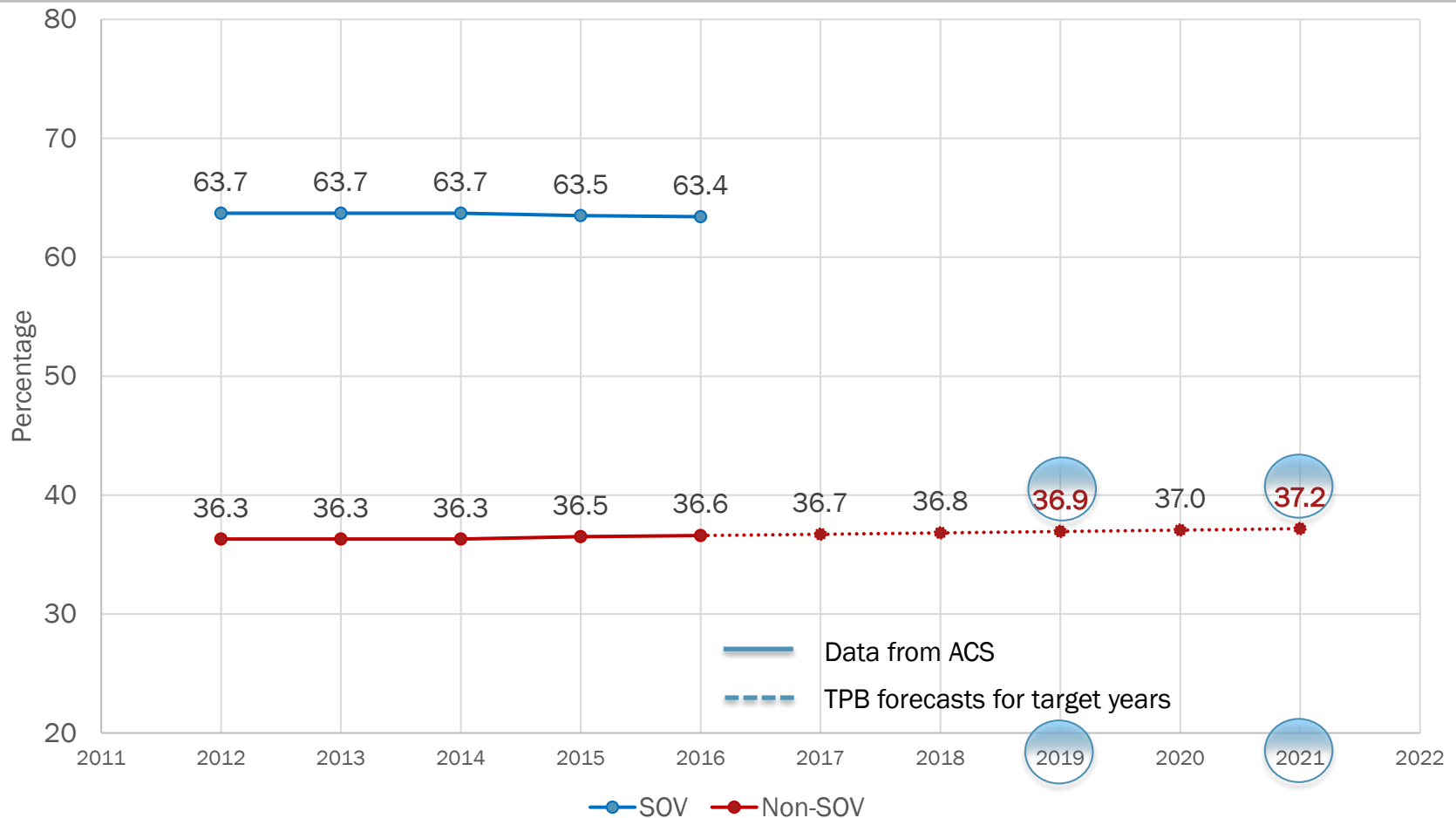
# Traffic Congestion: Mode Share Overview

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- Non-SOV (Single Occupancy Vehicle) mode share measure is for the commuting travel within the urbanized area.
- Includes carpools/vanpools, public transit, walking, biking, and teleworking.
- Non-SOV mode share data derived from the U.S. Census Bureau American Community Survey



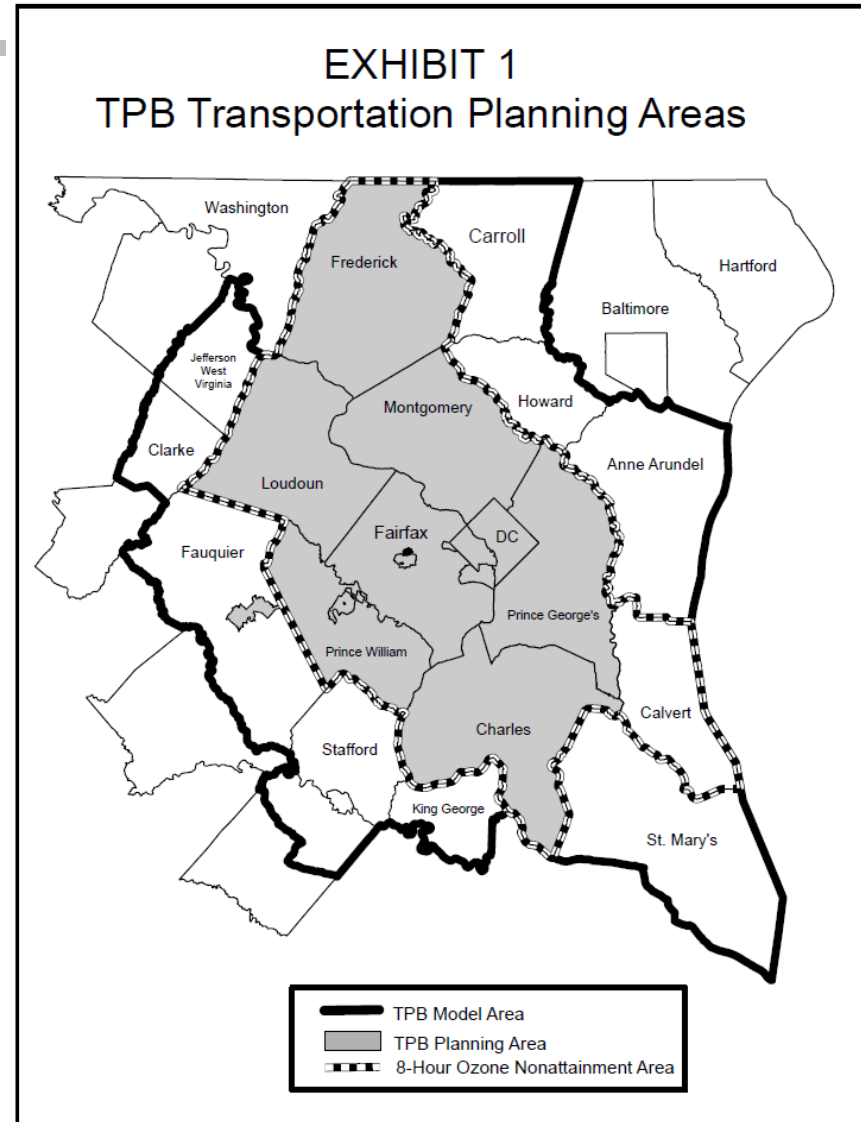
# Traffic Congestion: Mode Share–Recent Data And Short Term Forecast (Target)



# On-road Emissions Reduction - Overview

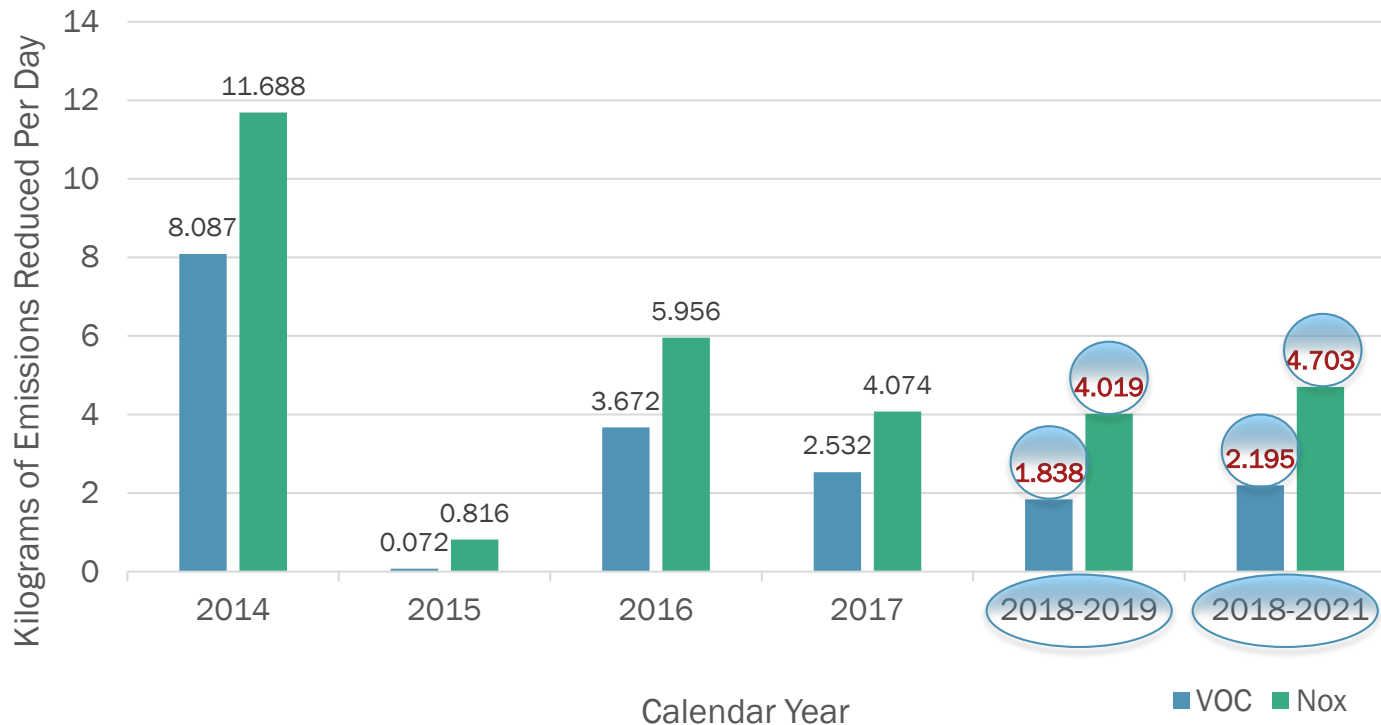
- Applies to criteria pollutants in non-attainment or maintenance areas\*
- Emissions reductions data are estimates from (select) projects that have received CMAQ funds
- Forecast emissions reductions are estimates based on projects anticipated to receive CMAQ funds
- TPB targets reflect the anticipated cumulative emissions reduction to be reported by MDOT, VDOT, and DDOT for the region

\* Targets for Calvert County will be set by Calvert-St Mary's MPO (outside TPB planning area) .





# Emissions Reduction: Recent Data And Short Term Forecasts (Targets)



Data source for past years: FHWA Public Access System

Emissions reductions from select CMAQ funded projects only for the TPB planning area within the Washington DC-MD-VA Ozone nonattainment area



# CMAQ Program Performance Targets

- Request adoption of Resolution R19-2018 to set the following targets

Performance Measures for the Washington DC-MD-VA urbanized area	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Peak Hour Excessive Delay (PHED)	<b>Not Required</b>	<b>26.7 Hours**</b>
Mode Share (Non-SOV)	<b>36.9%</b>	<b>37.2%</b>

*\*\*Updated as of May 21, 2018 based on new FHWA guidance on calculation*

Total Emissions Reductions for the TPB portion of the Washington DC-MD-VA nonattainment area		FFY 2018 – 2019 Two Year Target	FFY 2018 – 2021 Four Year Target
	Volatile Organic Compounds (VOCs)		<b>1.8376 Kg/Day</b>
Nitrogen Oxides (NOx)		<b>4.0194 Kg/Day</b>	<b>4.7026 Kg/Day</b>



# Next Steps: TPB

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- Transmit approved targets to State DOTs and adjoining MPOs
- TPB Steering Committee approval of FAMPO and BRTB MPO targets for urbanized areas
- Complete the MPO CMAQ Performance Plan with MPO targets and submit to State DOTs by September
- Complete an overall system performance report as part of the Visualize 2045 long range plan



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