

# CMAQ Program

Mid-Performance Period Progress Report  
FY 2022-2025 Performance Period



Christie Holland

# CMAQ Funding Program

- Competitive funding program administered by EWG (\$\$\$) for addressing ) for ozone, carbon monoxide, and/or particulate matter
- Federally required to set 2-and 4-year targets for
  - Peak Hour Excessive Delay (PHED)
  - Non- Single Occupancy Vehicle Travel (Non-SOV)
  - On-road Mobile Source Emission Reduction

## Find the measures on the System Performance Dashboard

Performance Dashboard

	2023 Target Met?	Baseline (2022)	2023 Target	2024 Target	2023 Target Met?	Baseline (2022)	2023 Target	2024 Target
<b>PM2: Bridge and Pavement Condition</b>								
% NHS Bridge Deck Area in Good Condition ▲	NO	23.7	26.5	27.5	NO	40.2	42.5	43.5
% NHS Bridge Deck Area in Poor Condition ▼	YES	5.1	5.0	3.5	YES	2.0	5.0	4.0
Missouri								
% Interstate NHS Pavement in Good Condition ▲	NO	79.5	79.5	79.5	YES	60.3	58.0	61.0
% Interstate NHS Pavement in Poor Condition ▼	NO	0.0	0.1	0.1	YES	1.1	1.0	1.0
% Non-Interstate NHS Pavement in Good Condition ▲	NO	33.6	36.0	39.0	NO	30.3	34.0	38.0
% Non-Interstate NHS Pavement in Poor Condition ▼	NO	2.7	1.0	1.0	NO	6.3	2.0	2.0
<b>PM3: Reliability</b>								
% Person-Mile Travel on the Interstate that is Reliable ▲	NO	94.3	95.0	95.0				
% Person-Mile Travel on Non-Interstate NHS that is Reliable ▲	NO	94.8	95.0	95.0				
Truck Travel Time Reliability ▼	NO	1.48	1.45	1.42				
<b>PM3: Congestion and Emissions Reduction</b>								
Annual Hours of Peak Hour Excessive Delay Per Capita ▼	YES	5.9	8.4	8.3				
% Non-Single Occupancy Vehicle Travel ▲	YES	23.8	18.0	18.3				
Non-Attainment (2015) Maintenance (2008)								
Nitrogen Oxides (kg/day)	190	NO	0.0	9.7	143.5			
Volatile Organic Compounds (kg/day)	122.3	NO	0.0	3.3	8.7			
Carbon Monoxide (kg/day)	335.5	YES	N/A	N/A	N/A			
Particulate Matter PM 2.5 (kg/day)	11	YES	N/A	N/A	N/A			
Particulate Matter PM 10 (kg/day)	N/A	N/A	N/A	N/A	N/A			

# Performance Reporting Timeline

## 2<sup>nd</sup> Performance Period

**CMAQ Baseline Report**  
2- and 4-year targets set

**Mid Period Report**  
Progress is monitored  
4-year targets adjusted

**Final Report**

2022

2023

2024

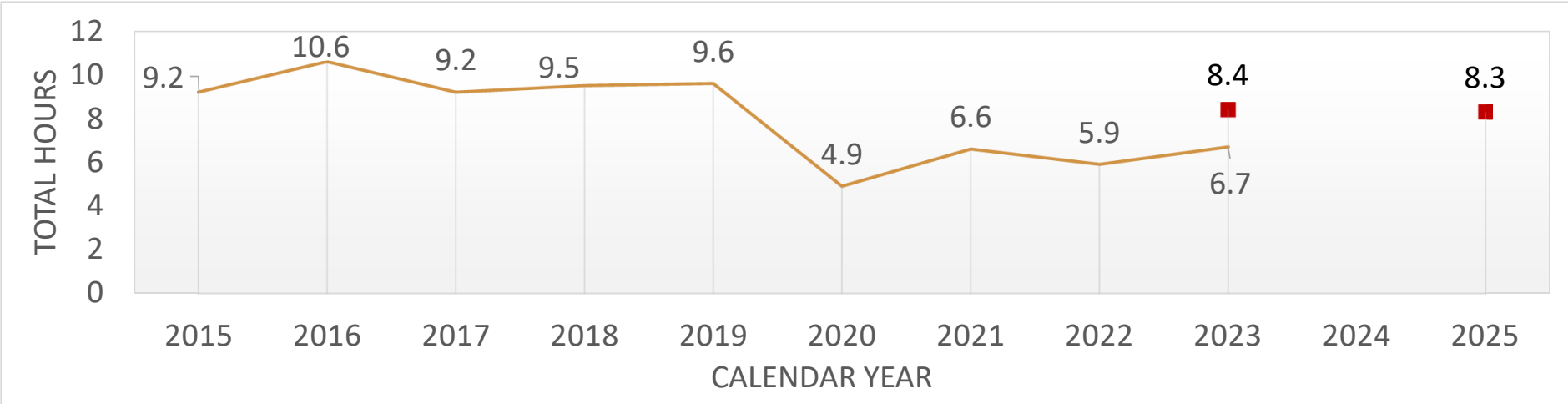
2025

2026

2027



# Peak Hour Excessive Delay (PHED) Targets



## 2-Year Target Performance

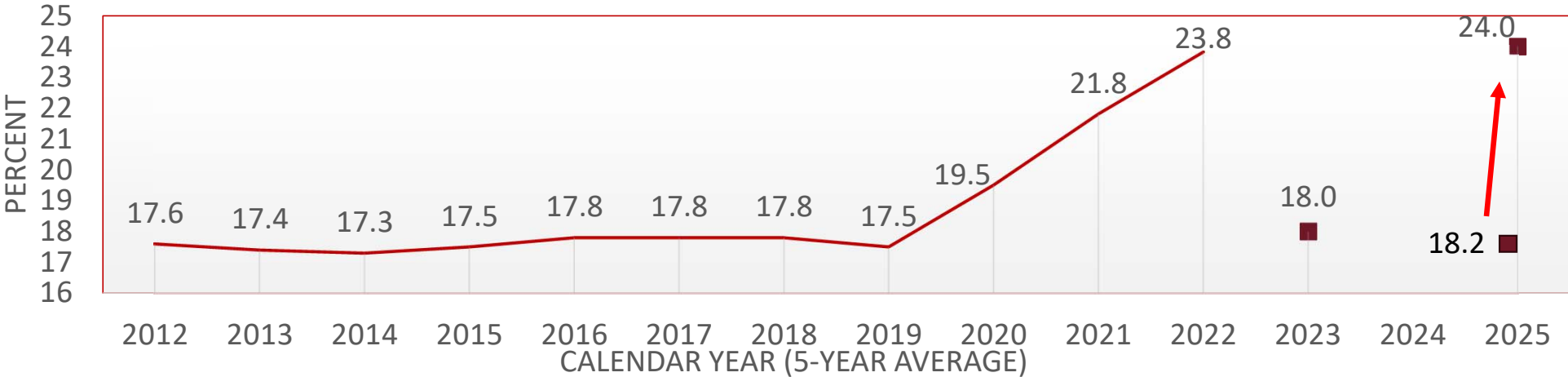
## 4-Year Target



2023 Target: 8.4 hours  
2023 Actual: 6.7 hours  
**Met Target: Yes**

**Target**  
2025: 8.3 hours

# Percent Non-SOV Travel Targets



## 2-Year Target Performance

## 4-Year Target

Desired  
Trend  
↑

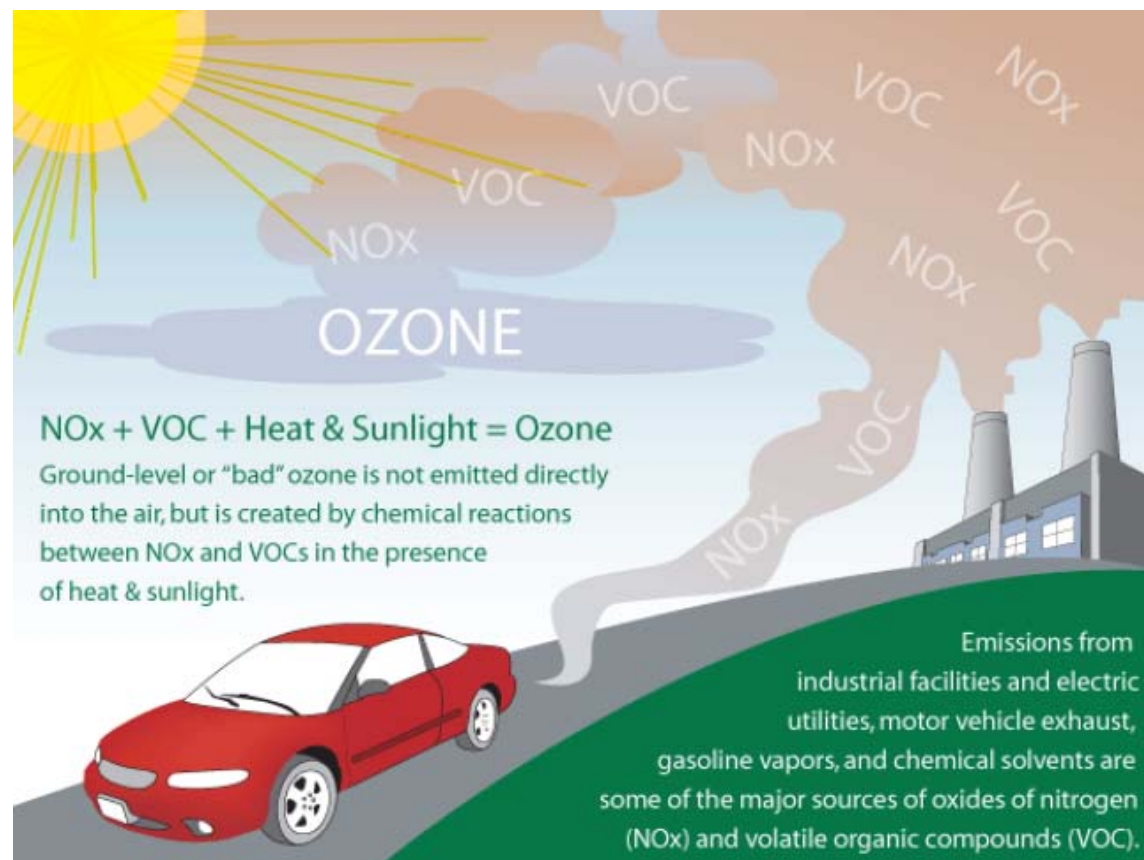
2023 Target: 18.0%  
2022 Actual: 23.8%  
**Met Target: Yes**

**Target**  
2025: 24.0%  
**Adjusted**

# On-Road Mobile Source Emissions Reduction

## Total Emissions Reduction Measure

- Cumulative estimated emission reductions, for all CMAQ funded projects, of each applicable criteria pollutant and precursor



# Emissions Reduction

Pollutants	2-Year Target (kg/day)	2-Year Reported (kg/day)	Target Met	4-year Target (kg/day)
Nitrogen Oxides (NO <sub>x</sub> )	9.671	146.193	YES	143.483
Volatile Organic Compounds (VOC)	3.308	7.011	YES	8.673

The Marine Vessel Engine Repower project in MO significantly contributed to these achievements

# Summary

To summarize, 2025 targets were reviewed based on system performance from 2023. Based on that review the following 2025 4-year targets are recommended.

Performance Measure	2021 Baseline	2023 Performance	2023 2-Year Target	2025 4-Year Target	4-Year Target Adjusted
PHED measure (hours)	6.6	6.7	8.4	8.3	NO
Non-SOV measure (%)	19.5%*	23.8%***	18.0%	24.0%	YES
Emissions Reduction for NO <sub>x</sub> (kg/day)	96.062**	146.193	9.671	143.483	NO
Emissions Reduction for VOC (kg/day)	18.359**	7.011	3.308	8.673	NO



Performance Dashboard

Home Federal Measures Communities and Region Transportation System Process

Number of Non-Motorized Fatalities and Serious Injuries (5-year rolling average) **NO** 224 219

**PM2: Bridge and Pavement Condition**

	2023 Target Met?	Baseline (2022)	2023 Target	2025 Target	2023 Target Met?	Baseline (2022)	2023 Target	2025 Target
% NHS Bridge Deck Area in Good Condition ▲	<b>NO</b>	23.7	26.5	27.5	<b>NO</b>	40.2	42.5	43.5
% NHS Bridge Deck Area in Poor Condition ▼	<b>YES</b>	5.1	5.0	3.5	<b>YES</b>	2.0	5.0	4.0
	2021 Target Met?	Baseline (2020)	2023 Target	2025 Target	2021 Target Met?	Baseline (2021)	2023 Target	2025 Target
% Interstate NHS Pavement in Good Condition ▲	<b>NO</b>	79.5	79.5	79.5	<b>YES</b>	60.3	58.0	61.0
% Interstate NHS Pavement in Poor Condition ▼	<b>NO</b>	0.0	0.1	0.1	<b>YES</b>	1.1	1.0	1.0
% Non-Interstate NHS Pavement in Good Condition ▲	<b>NO</b>	33.6	36.0	39.0	<b>NO</b>	30.3	34.0	38.0
% Non-Interstate NHS Pavement in Poor Condition ▼	<b>NO</b>	2.7	1.0	1.0	<b>NO</b>	6.3	2.0	2.0

**PM3: Reliability**

	2023 Target Met?	Baseline (2022)	2023 Target	2025 Target
% Person-Mile Travel on the Interstate that is Reliable ▲	<b>NO</b>	94.3	95.0	95.0
% Person-Mile Travel on Non-Interstate NHS that is Reliable ▲	<b>NO</b>	94.8	95.0	95.0
Truck Travel Time Reliability ▼	<b>NO</b>	1.48	1.45	1.42

**PM3: Congestion and Emissions Reduction**

	2023 Target Met?	Baseline (2022)	2023 Target	2025 Target	
Annual Hours of Peak Hour Excessive Delay Per Capita ▼	<b>YES</b>	5.9	8.4	8.3	
% Non-Single Occupancy Vehicle Travel ▲	<b>YES</b>	23.8	18.0	18.3	
	Achieved	FFY 2022-2021	Current Status	FFY 2022-2023	FFY 2022-2025
Non-Attainment (2015 \ Maintenance (2008)) Nitrogen Oxides (kg/day)	190	<b>NO</b>	0.0	9.7	143.5
Volatle Organic Compounds (kg/day)	122.3	<b>NO</b>	0.0	3.3	8.7
Carbon Monoxide (kg/day)	335.5	<b>YES</b>	N/A	N/A	N/A
Particulate Matter PM 2.5 (kg/day)	11	<b>YES</b>	N/A	N/A	N/A
Particulate Matter PM 10 (kg/day)	N/A	<b>N/A</b>	N/A	N/A	N/A

Find the measures on the System Performance Dashboard



**EAST-WEST GATEWAY**  
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Missouri			
Pollutant	2-Year Target (2022-2023) Comparison to actual 2- Year Performance		
	2-Year Target (kg/da y)	2-Year Reported (kg/day)	Target Met
Nitrogen Oxides (NOx)	8.836	145.943	YES
Volatile Organic Compounds (VOC)	2.940	6.990	YES

Illinois			
Pollutant	2-Year Target (2022-2023) Comparison to actual 2- Year Performance		
	2-Year Target (kg/da y)	2-Year Reported (kg/day)	Target Met
Nitrogen Oxides (NOx)	0.836	0.250	NO
Volatile Organic Compounds (VOC)	0.368	0.021	NO

# Content

1. Overview and Timeline
2. Performance Measures and Targets



# Applicability Determination

October 2021 - FHWA released an applicability determination for the 2<sup>nd</sup> performance period

CHO

## Applicability for Traffic Congestion Measures

MPO Name	Urbanized area with population > 200K overlapping with MPA	Do the MPA, urbanized area and at least one designated nonattainment or maintenance area overlap? <u>And</u> does that overlap area contain any NHS route segments, according to HPMS?
East-West Gateway Council of Government	St. Louis, MO--IL	Yes- Required to establish targets for the traffic congestion measures for the urbanized area.

## Applicability for On-Road Mobile Source Emissions Measures

MPO Name	Applicability Parameter			National Ambient Air Quality Standards (NAAQS)							Precursors	
	Do the MPA; urbanized area with population > 1m; and any one of the designated nonattainment or maintenance Area(s) Overlap?	Name of urbanized area with population > 1m overlapping with MPA	Name of additional urbanized area with population > 1m overlapping with MPA	24- hour PM10	PM2.5 (1997)	PM2.5 (2006)	PM2.5 (2012)	Ozone (2008)	Ozone (2015)	CO	VOC	NOx
East-West Gateway Council of Government	Yes - CMAQ Performance Plan Required	St. Louis, MO-IL						YES	YES		YES	YES

## Slide 12

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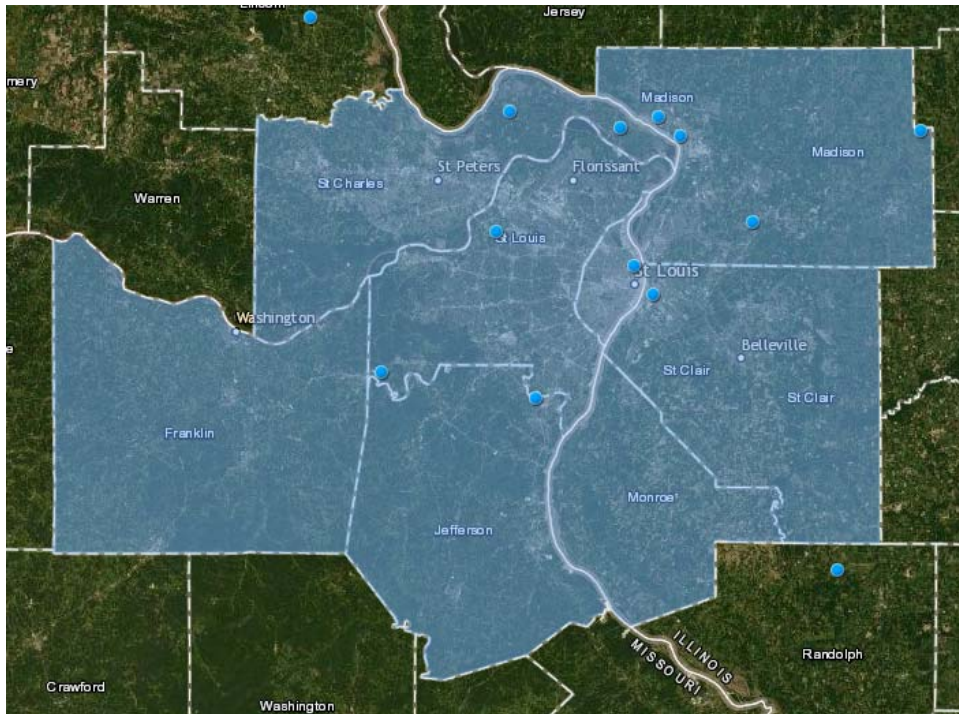
**CHO** don't think we need to include this  
Christie Holland, 2024-08-22T19:56:45.394

**SKO 0** I agree  
Saranya Konala, 2024-08-23T14:52:04.157

# Regional Attainment Status

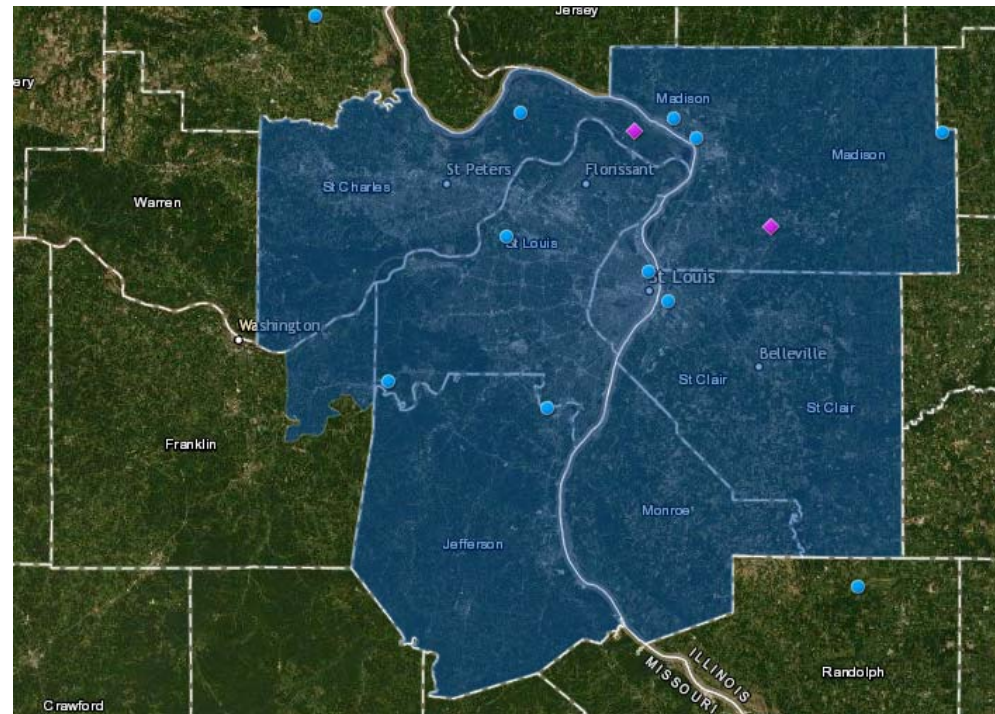
## 8 hour ozone (2008 Standard)

- Maintenance Area
- “Marginal” Classification



## 8-hour ozone (2015 standard)

- Nonattainment Area
- “Marginal” Classification

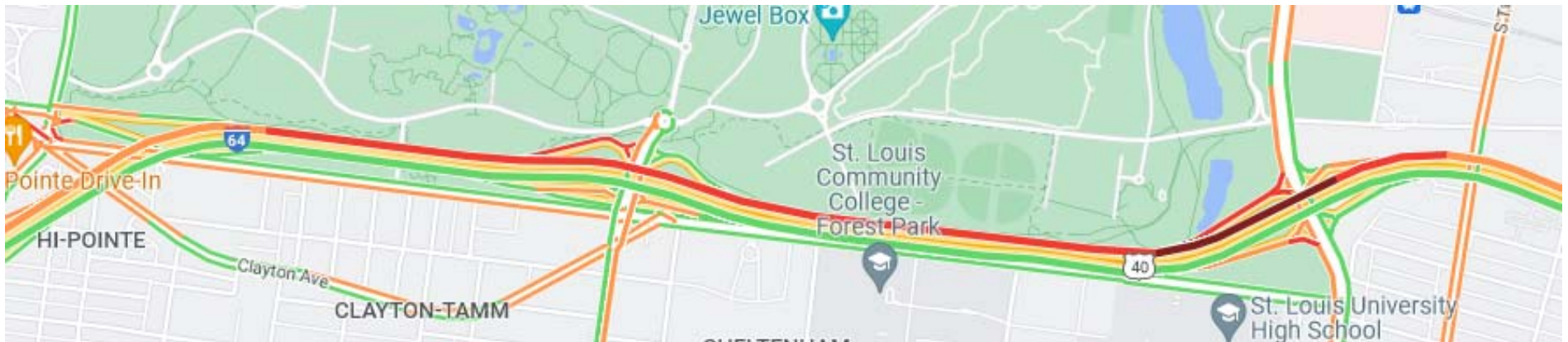


# Peak Hour Excessive Delay (PHED)

## Traffic Congestion measure

- Excessive delay that travelers experience per year from traveling on National Highway System (NHS) roadways during peak travel periods per capita
- Our region's peak is 3pm to 7pm

Desired  
Trend



# Percent Non-Single Occupancy Vehicle (SOV) Travel

## Traffic Congestion measure

- Percentage of “trips” that occur in Non-SOV vehicles or modes, including telecommuting, transit, carpooling, biking, and walking
- American Community Survey (ACS) Data

Desired  
Trend





Missouri Target			
Emissions Reduction Measure	2- and 4- year Emission Reductions for each applicable criteria pollutant and precursor for all projects funded with CMAQ funds		
	Missouri FFY 2022-2025 CMAQ Program (kg/day)	2-year (kg/day)	4-year (kg/day)
Nitrogen Oxides (NOx)	142.004	8.836	142.004
Volatile Organic Compounds (VOC)	8.209	2.940	8.209

Illinois Target			
Emissions Reduction Measure	2- and 4- year Emission Reductions for each applicable criteria pollutant and precursor for all projects funded with CMAQ funds		
	Illinois FFY 2022-2025 CMAQ Program (kg/day)	2-year (kg/day)	4-year (kg/day)
Nitrogen Oxides (NOx)	1.479	0.836	1.479
Volatile Organic Compounds (VOC)	0.464	0.368	0.464

## Slide 16

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**CHO** eDIT  
Christie Holland, 2024-08-21T17:29:01.657

**CHO 0** delete  
Christie Holland, 2024-08-22T19:52:58.623

# Emissions Reduction – 2<sup>nd</sup> Performance Period Targets

Total Emissions Reduction Target		
Total Emissions Reduction Measure	2- and 4- year Total Emission Reductions for each applicable criteria pollutant and precursor for all projects funded with CMAQ funds	
	2-year Target (kg/day)	4-year Target (kg/day)
Nitrogen Oxides (NOx)	9.671	143.483
Volatile Organic Compounds (VOC)	3.308	8.673