



## NC Air Quality Update

October 24, 2022

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**2022 ESI Conference**

*Department of Environmental Quality*



# Topics to Cover

## NAAQS Update

- PM2.5 – What might a new standard look like?

## Compliance

- Statistics
- Common pitfalls
- Boiler Tune-Up Challenges

## GHG Inventory and Reduction Strategies

## Volkswagen Settlement Update

## Emerging Contaminants/PFAS

# ***NAAQS Update***

# North Carolina and the National Ambient Air Quality Standards

Attaining all federal public health air quality standards for:

2 6 1 8

days...

and counting!

as of October 24, 2022

Ozone

Particulate  
Matter

Lead

Nitrogen  
Dioxide

Sulfur  
Dioxide

Carbon  
Monoxide



# *EPA's NAAQS Review – PM2.5*

- **Clean Air Scientific Advisory Committee (CASAC) and PM Panel Recommendations:**
  - **Annual standard - currently 12 ug/m<sup>3</sup>**
    - Majority report: 8-10 ug/m<sup>3</sup>
    - Minority report: 10-11 ug/m<sup>3</sup>
  - **Daily standard – currently 35 ug/m<sup>3</sup>**
    - Majority report: 25-30 ug/m<sup>3</sup>
    - Minority report: maintain the current standard of 35 ug/m<sup>3</sup>
- **CASAC also reviewed the need for a secondary PM2.5 standard – visibility standard**



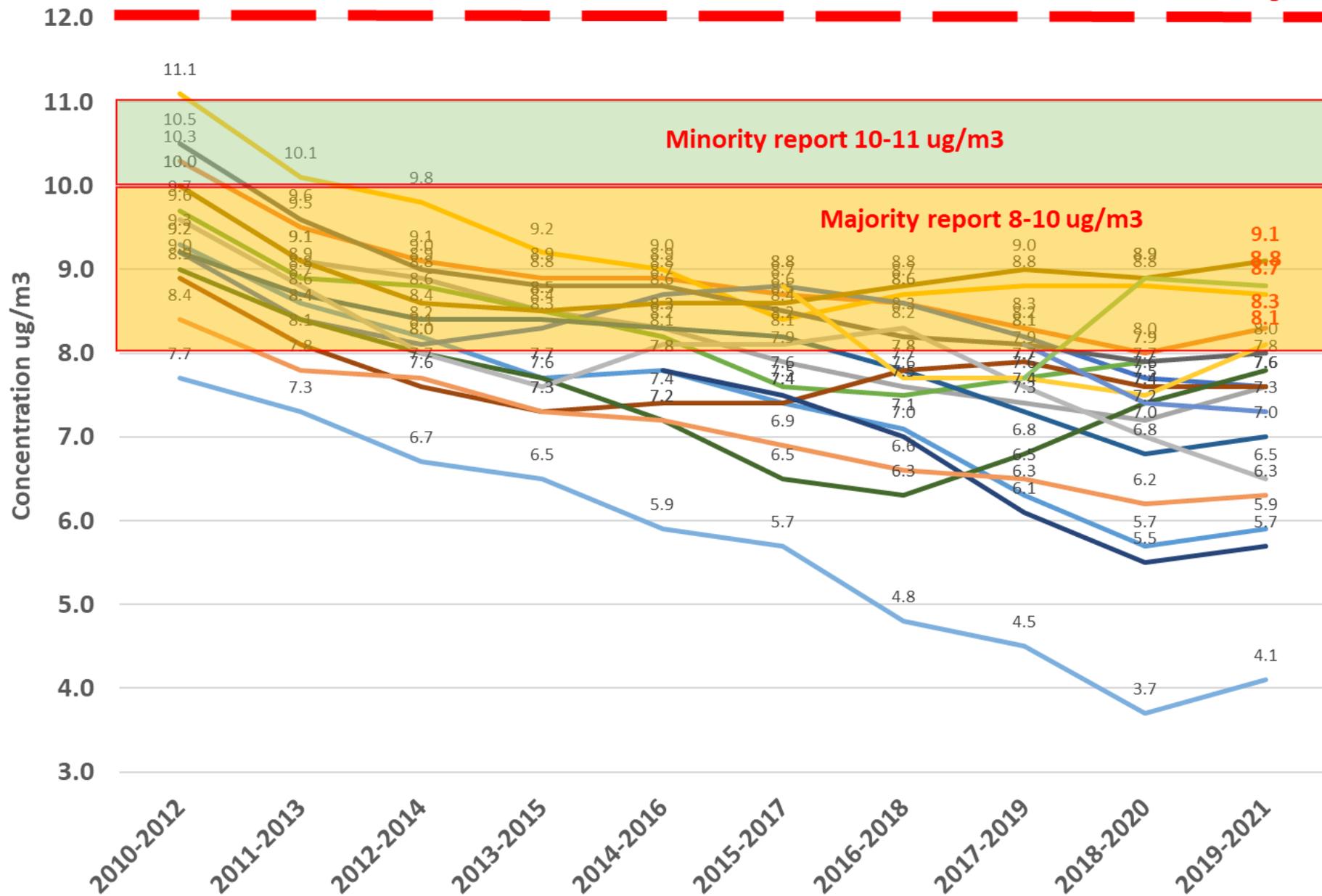
# *EPA's NAAQS Review – PM2.5*

- **Proposal coming very, very soon**
- **Things state/local air agencies are watching:**
  - What would impacts be if annual (12 ug/m<sup>3</sup>) and 24-hr (35 ug/m<sup>3</sup>) are lowered?
  - “Revisit” the treatment of wildfire as exceptional events
  - Additional monitoring requirements
- **Things the regulated community should watch:**
  - Impacts to modeling in the permitting process



# PM 2.5 Annual Design Values

Current Standard 12 ug/m3



# *Compliance*



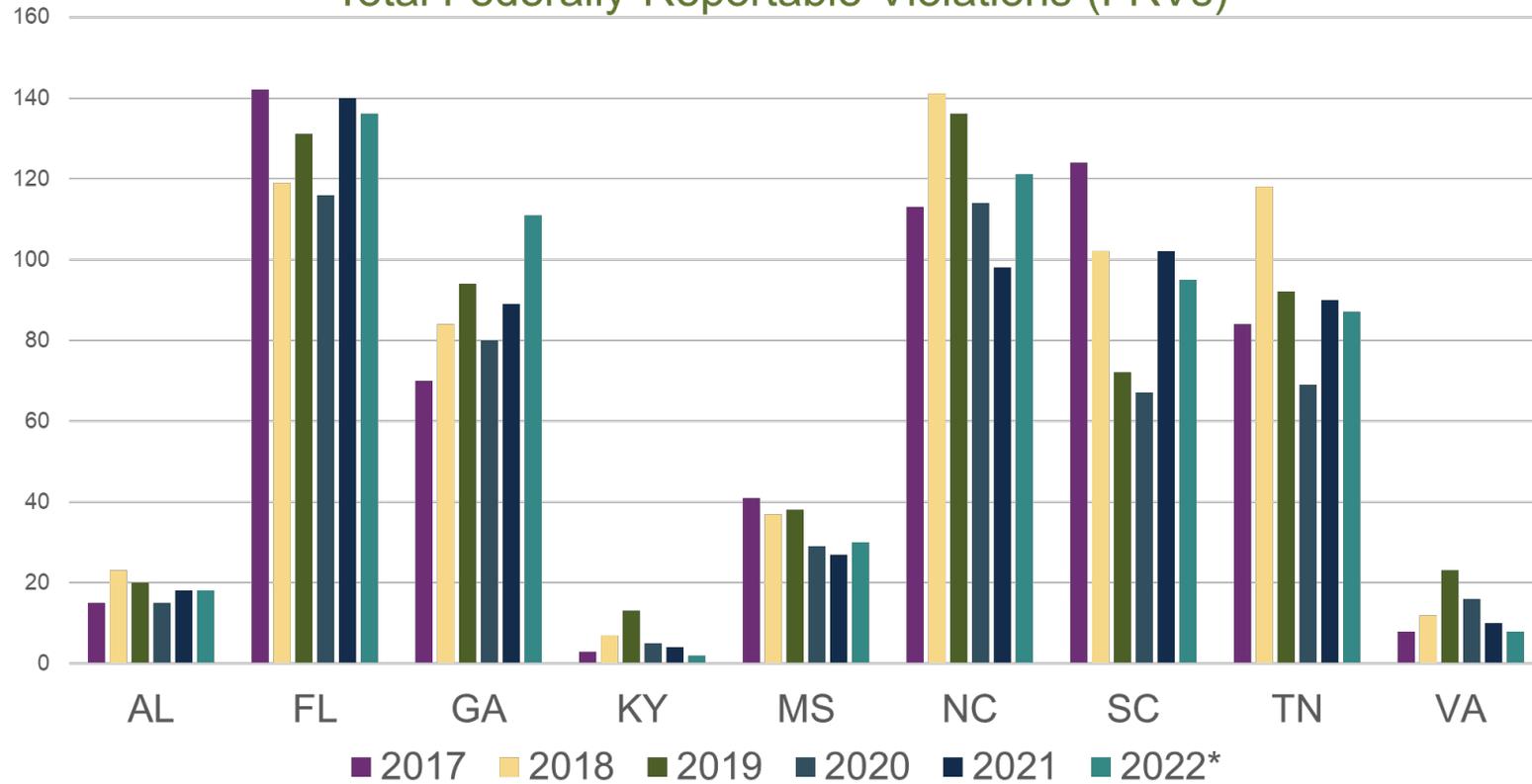
# Committed to Compliance

89.6%

6-yr average compliance rate

87.3 - 91.6% range

Total Federally Reportable Violations (FRVs)



# *Common Compliance Pitfalls*

- **Stack test compliance issues**
- **Incomplete emissions inventories**
- **Late reports**
- **112 (r) compliance**

# *Boiler Tune-Up Challenges*

- **40 CFR 63, Subpart DDDDD (Boiler MACT) and Subpart JJJJJ (Boiler GACT) require periodic tune-ups on an annual, biennial, or once every five-year basis.**
- **Some companies have notified DAQ that they have experienced challenges finding a contractor willing to perform the needed boiler tune-up.**
- **Due to staffing issues and other economic factors, certain contractors have stated that tune-ups are not a “priority” for them.**
- **May be more challenging for facilities with 2-year or 5-year tune-up schedules.**
- **DAQ recommends scheduling tune-ups well ahead of deadline to work through any potential issues with boiler tune-up contractors.**

# ***GHG Inventory and Reduction Strategies***

# Gross GHG Emissions by Economic Sector in 2018



## 2018 Gross GHG Emissions

**159.5** million metric tons of CO<sub>2</sub>e

CO<sub>2</sub> emissions from fossil fuel combustion:

**81.3%**

of total gross emissions

CO<sub>2</sub> emissions removed by forests & other lands:

**26.4%**

of total gross emissions

## 2005 - 2018 Change in Gross GHG Emissions

- ▼ **34.7%** — Electric Generation
- ▼ **16.5%** — Residential
- ▼ **3.5%** — Transportation
- ▲ **1.7%** — Industry\*
- ▲ **3.3%** — Commercial

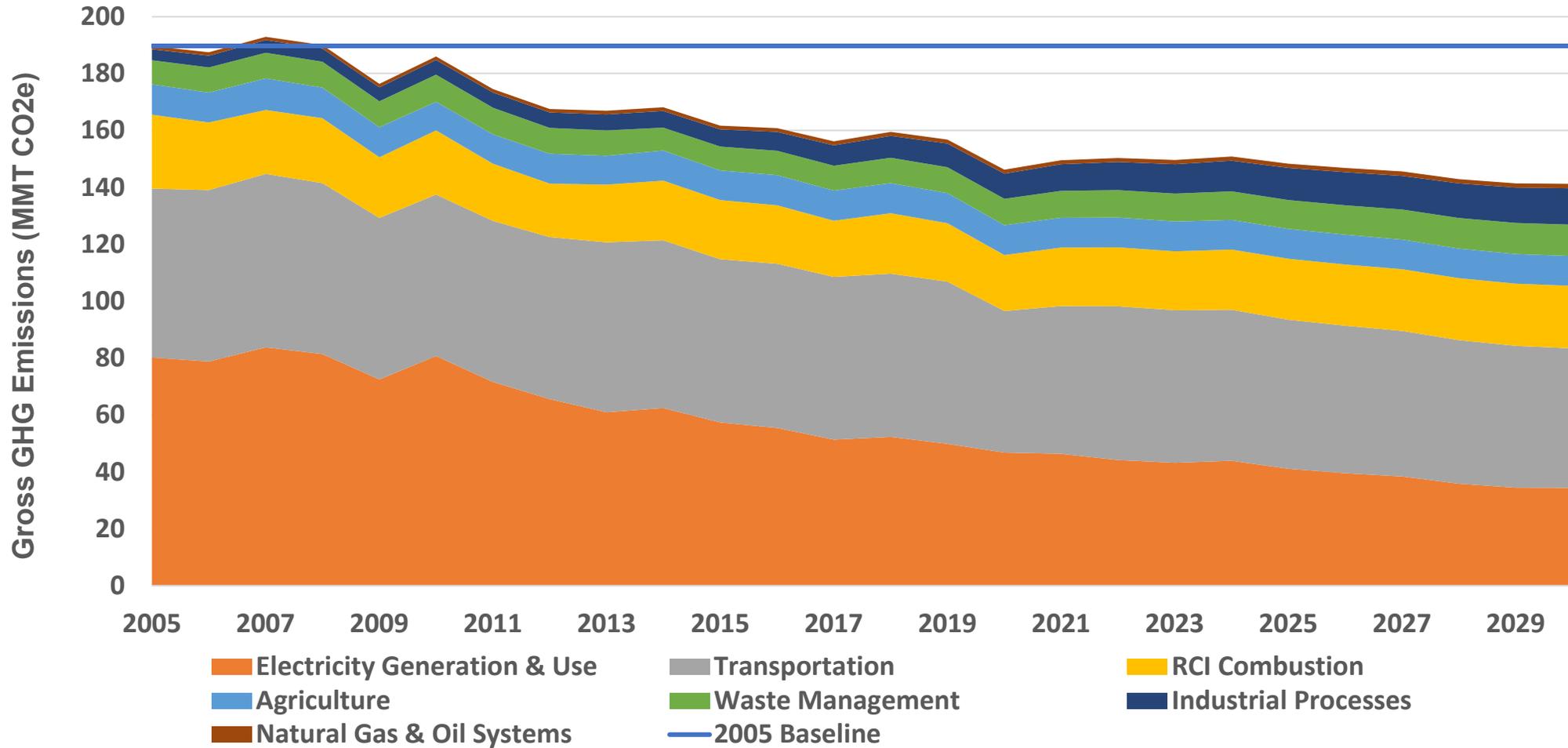
## Statewide Net GHG Reductions (2005-2018)

↓ **23.0%**

For full report, see [deq.nc.gov/GHGInventory](http://deq.nc.gov/GHGInventory)

\*Industry includes fossil fuel combustion, natural gas and oil processes, and industrial processes.

# NC Gross GHG Emissions Trends by Source Sector, 2005-2030



# Reducing GHGs

## NC Executive Actions

2018

### EO 80

- Reduce GHG emissions by 40% below 2005 levels by 2025
- Increase total number of registered LD ZEVs to at least 80,000 by 2025
- Reduce energy consumption in state-owned buildings by 40% below 2002-2003 levels

2022

### EO 246

- Reduce GHG emissions by 50% below 2005 levels by 2030
- Increase total number of registered LD ZEVs to at least 1.25 million by 2030
- Increase the sale of ZEV so that 50% of in-state sales are zero emission by 2030
- NC DOT to develop Clean Transportation Plan by April 2023

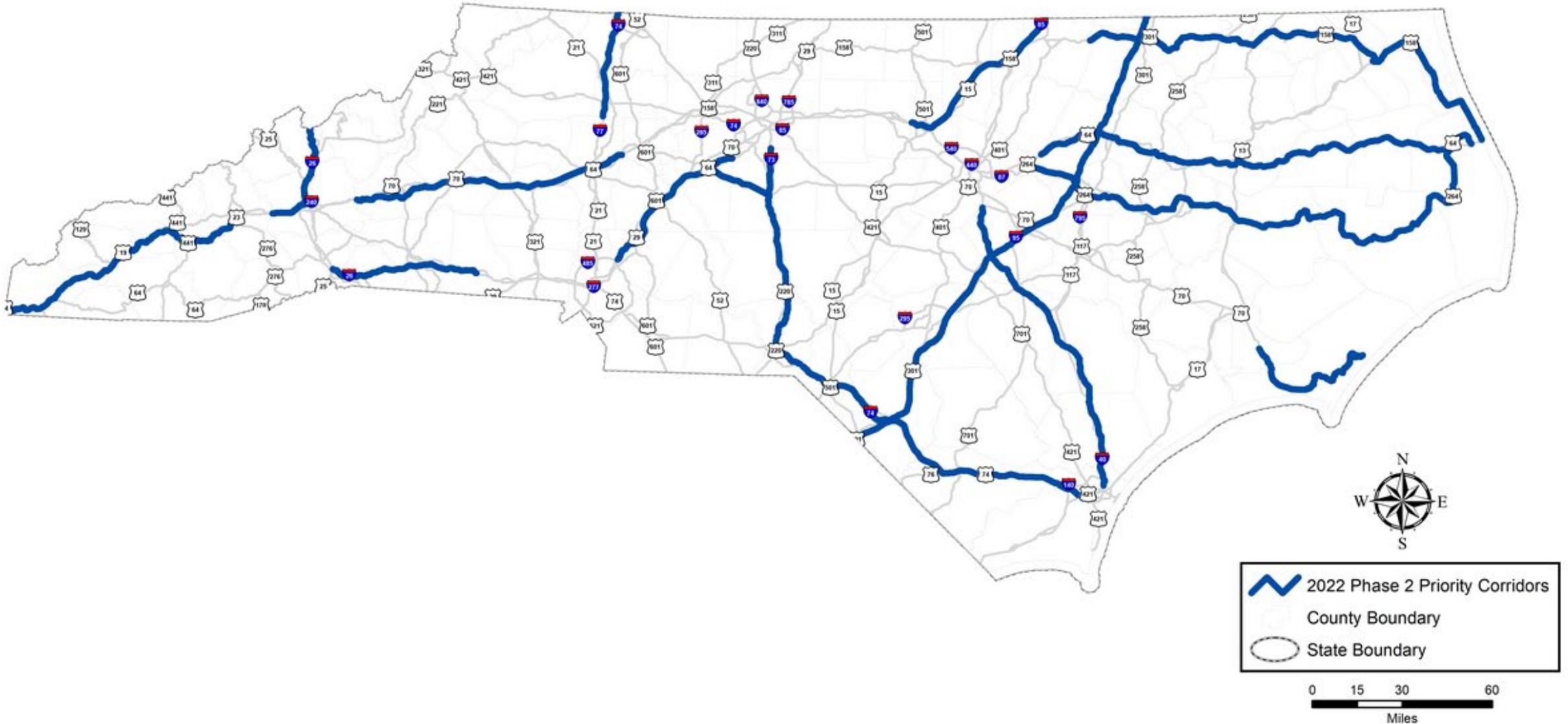
### MHD ZEV MOU

- Advance & accelerate MHD ZEV sales & reduce GHGs from this sector
- 30% of all new MHD vehicle sales be zero emission vehicles by 2030
- 100% of all new MHD vehicle sales be zero emission vehicles by 2050

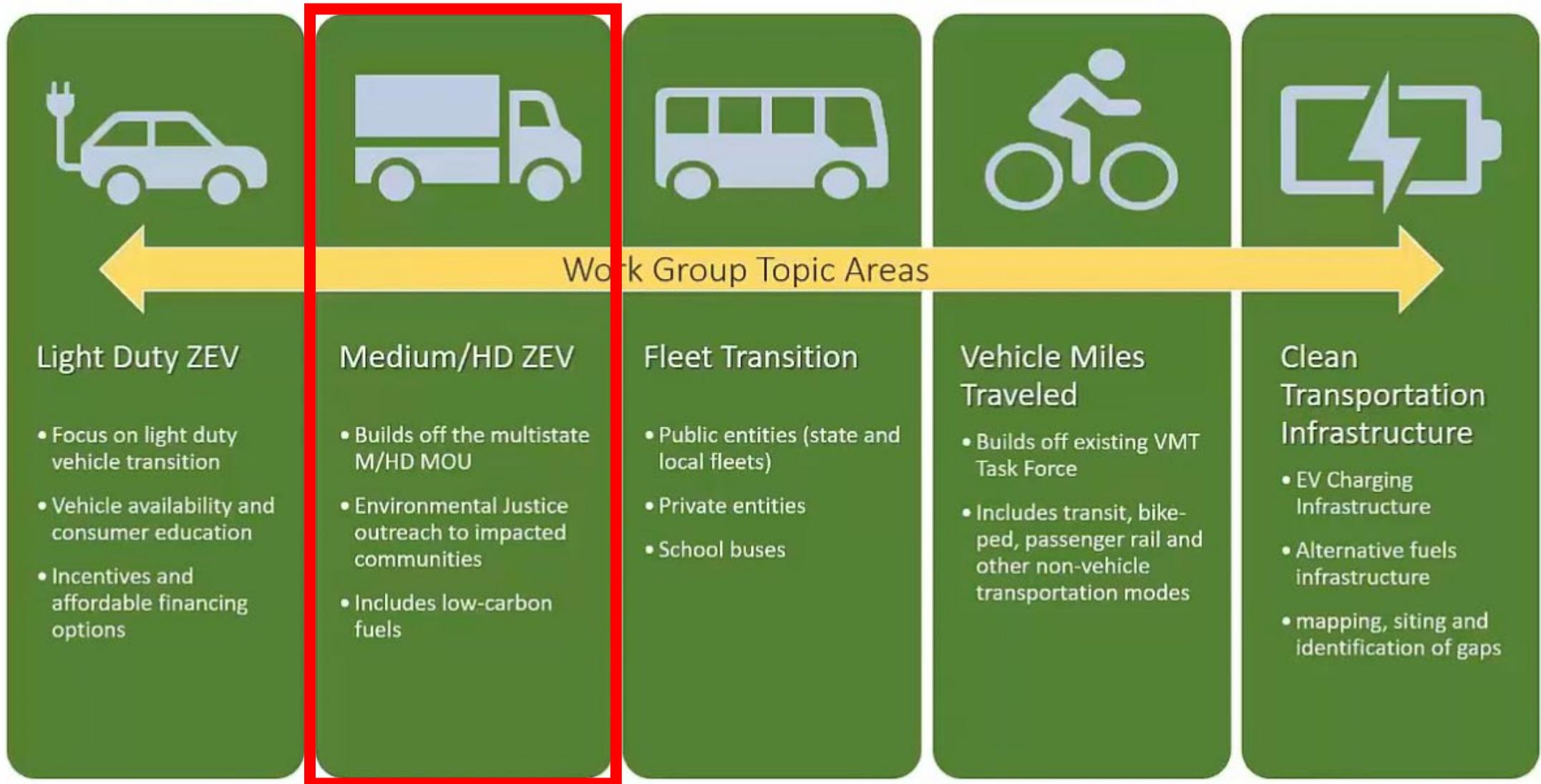
2020



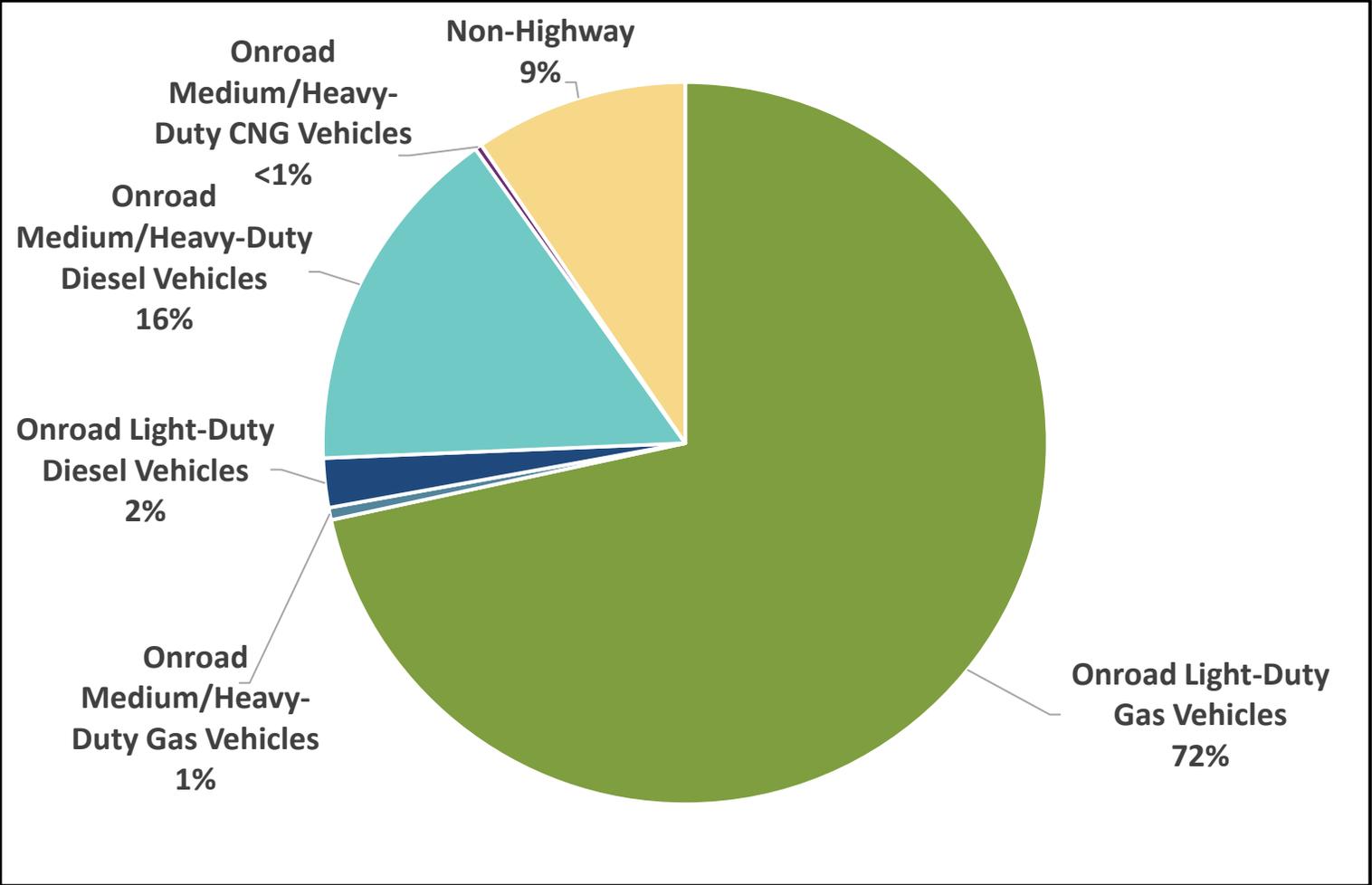
# Transportation corridors in NC



# NC Clean Transportation Plan



# Distribution of 2018 North Carolina Transportation GHG Emissions



# *Reducing Emissions*

*Through Funding Opportunities*

## **N.C. Volkswagen Settlement**

- **Phase 1: ~\$30,000,000**
- **Phase 2: ~\$63,000,000 (in process)**



## **National Electric Vehicle Infrastructure (NEVI) Program**

- **NCDOT submitted plan August 2022**

# ***N.C. Volkswagen Settlement Program***

# *VW Settlement Phase 2 Application Summary*

## Transit and Shuttle Bus Program

- Applications closed May 2, 2022
- Awarded \$13.6 million in August 2022
- 61 clean transit buses, **25 are electric**

## School Bus Program

- Applications closed June 6, 2022
- Announced last week: \$30.1 million awarded
- 131 clean school buses, **43 are electric**



# *VW Settlement Phase 2 Application Summary*

## DC Fast ZEV Infrastructure — Priority Corridors Program

- Applications closed May 18, 2022
- \$5 million available, but **\$33.5 million requested**
- Awards to be announced in coming weeks

## DC Fast ZEV Infrastructure — Existing Sites Program

- Applications closed July 11, 2022
- \$1.6 million allocated, \$894,423 requested
- Awards to be announced in coming weeks



# VW Settlement Phase 2 Application Summary

## Level 2 ZEV Infrastructure — State Agency Program

- Applications closed on June 6, 2022
- \$2.3 million requested for 170 new charging ports
- **Announced last week:** \$1 million for 103 charging ports

## Level 2 ZEV Infrastructure — Public Access Program

- Applications opened May 2, 2022
- Rebates awarded on first-come, first-served basis while funds last
- \$736,000 awarded to date for new charging ports
- \$1.1 million allocated to this program
- **Rebate funds still available to qualifying applicants**



# VW Settlement Phase 2 Application Summary

## Level 2 ZEV Infrastructure — Multi-Unit Dwelling Program

- Applications opened June 13, 2022
- Rebates awarded on first-come, first-served basis while funds last
- \$489,544 allocated to this program
- **Rebate funds still available to qualifying applicants**

Reviewing first-  
round of  
applications

## Level 2 ZEV Infrastructure — Workplace Program

- Applications opened on July 25, 2022
- Rebates awarded on first-come, first-served basis while funds last
- \$489,544 allocated to this program
- **Rebate funds still available to qualifying applicants**



# *VW Settlement Phase 2 Application Summary*

## **Clean Heavy-Duty Vehicle Program**

- Applications closed August 15, 2022
- \$12.9 million allocated, \$11.0 million requested
- Award announcements next month

➤ Contact the VW Team for more information!



# ***Emerging Contaminants***

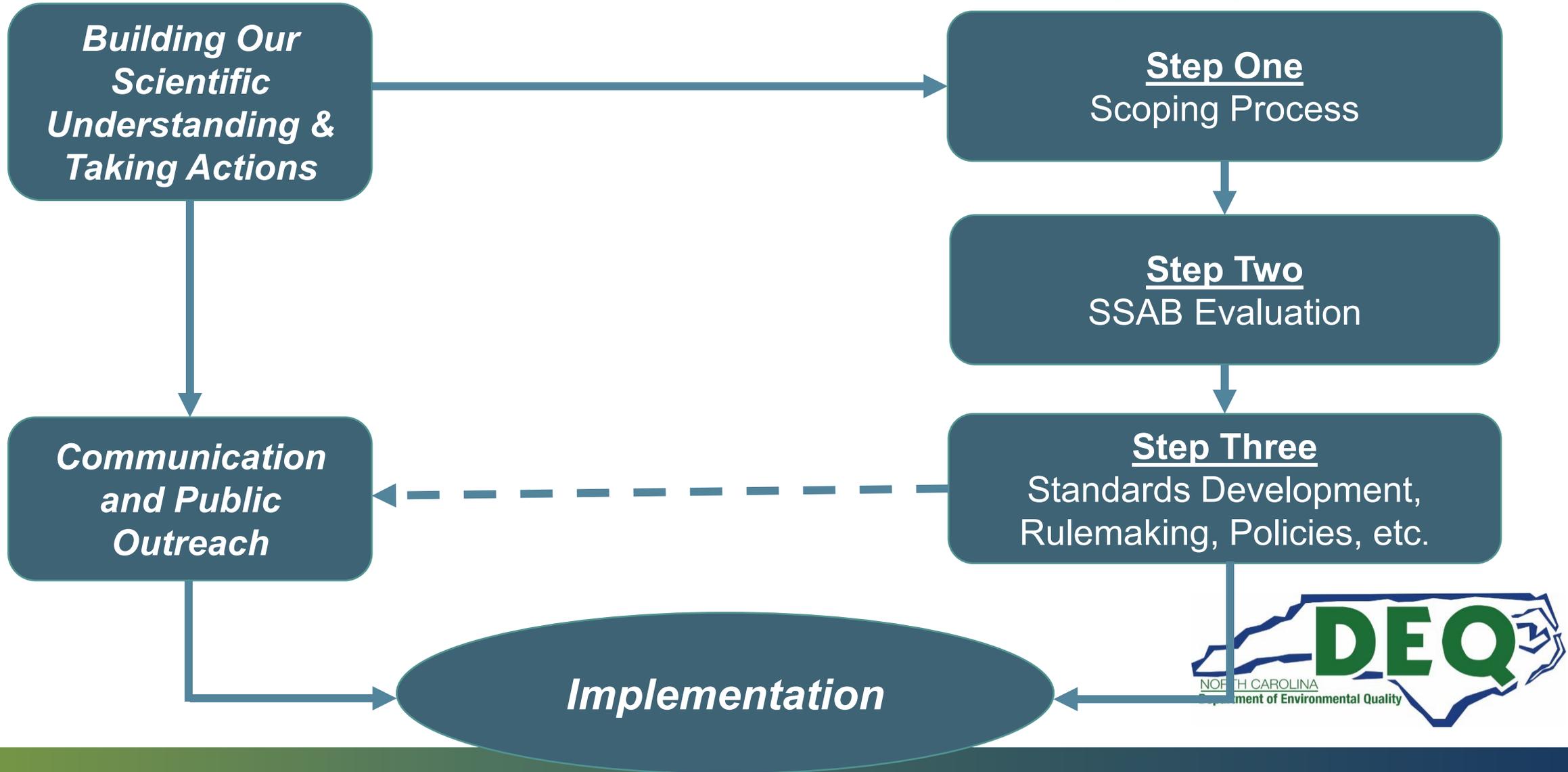
## ***PFAS***

# NC DEQ's Emerging Compounds (PFAS) Framework

## Key Components

### Principal Agency Actions

### Regulatory Actions



## *This too!*

- **DAQ's Budget and Staffing/Workload Assessment**
- **Rule change to reduce/eliminate paper submittals – Going Digital !**
- **Inflation Reduction Act**
- **NSR listening sessions**
- **Ambient monitoring methods for PM2.5**
- **Startup, Shutdown, Malfunction (SSM)**
- **GHG Emissions Guidelines for existing EGUs (111d)**



***Thank you!***

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