



# A Marriage of Convenience

Managing Air Quality and Greenhouse  
Gases in the District of Columbia

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District Department of Transportation

January 21, 2021

# Presentation Topics

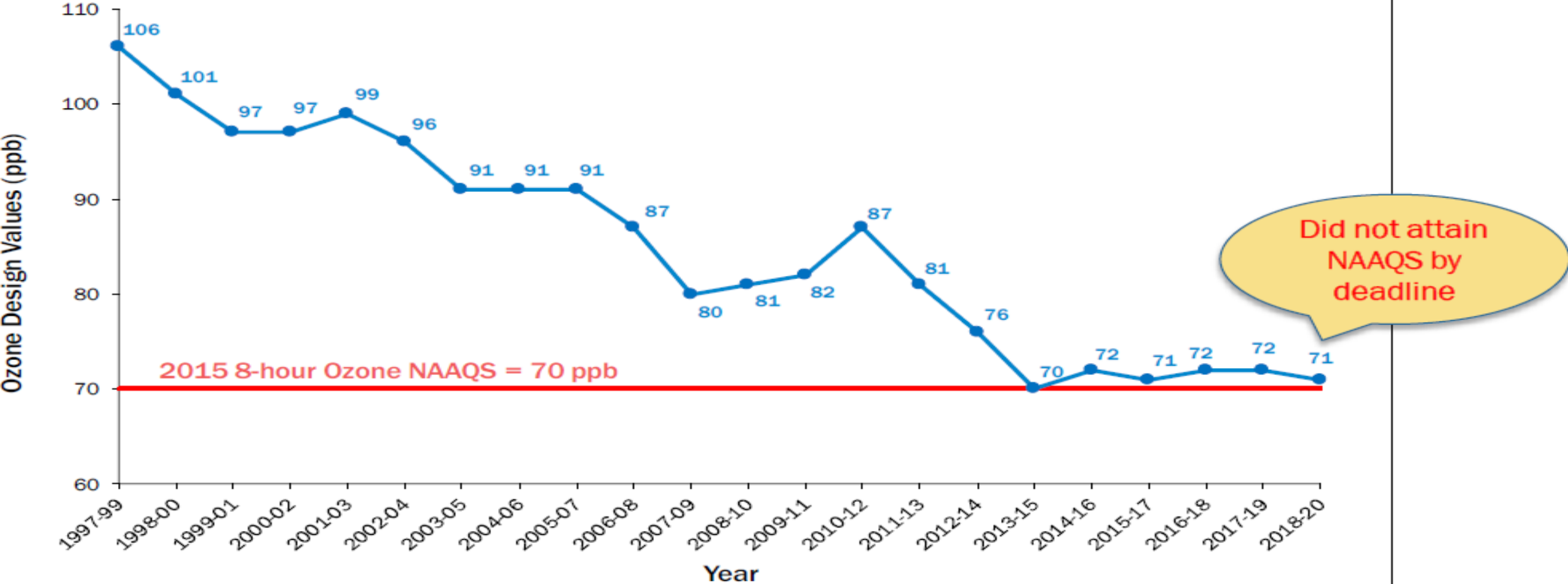
- Overview
- How the District Manages AQ and GHG
- How the District Mitigates AQ and GHG
- Challenges and Path Forward
- Q & A



# OVERVIEW

# District Air Quality Attainment Status

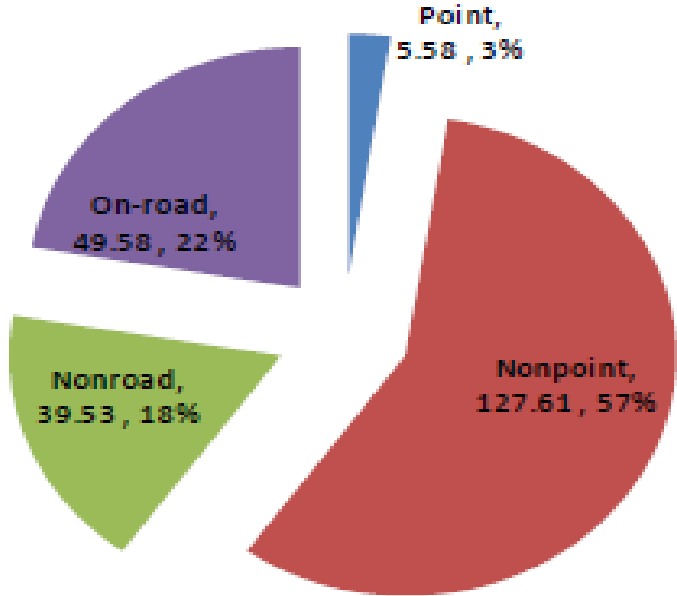
## 8-hour Ozone Design Values Washington, DC-MD-VA Nonattainment Area (1999-2020)



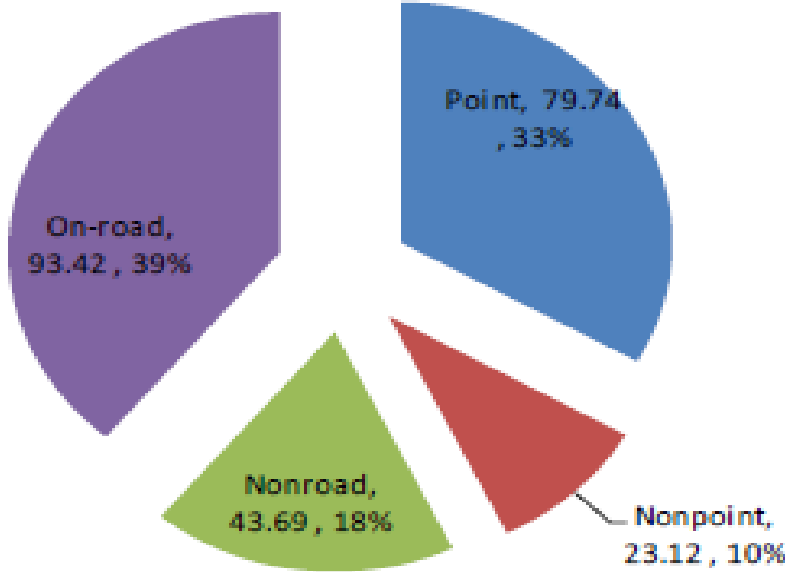
\* Design value = 3-year average of 4th highest daily maximum 8-hour average ozone concentrations.

# DC-MD-VA BY2017 Emission Inventory for Ozone

**Draft OSD 2017 VOC Emissions (tpd)**  
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)

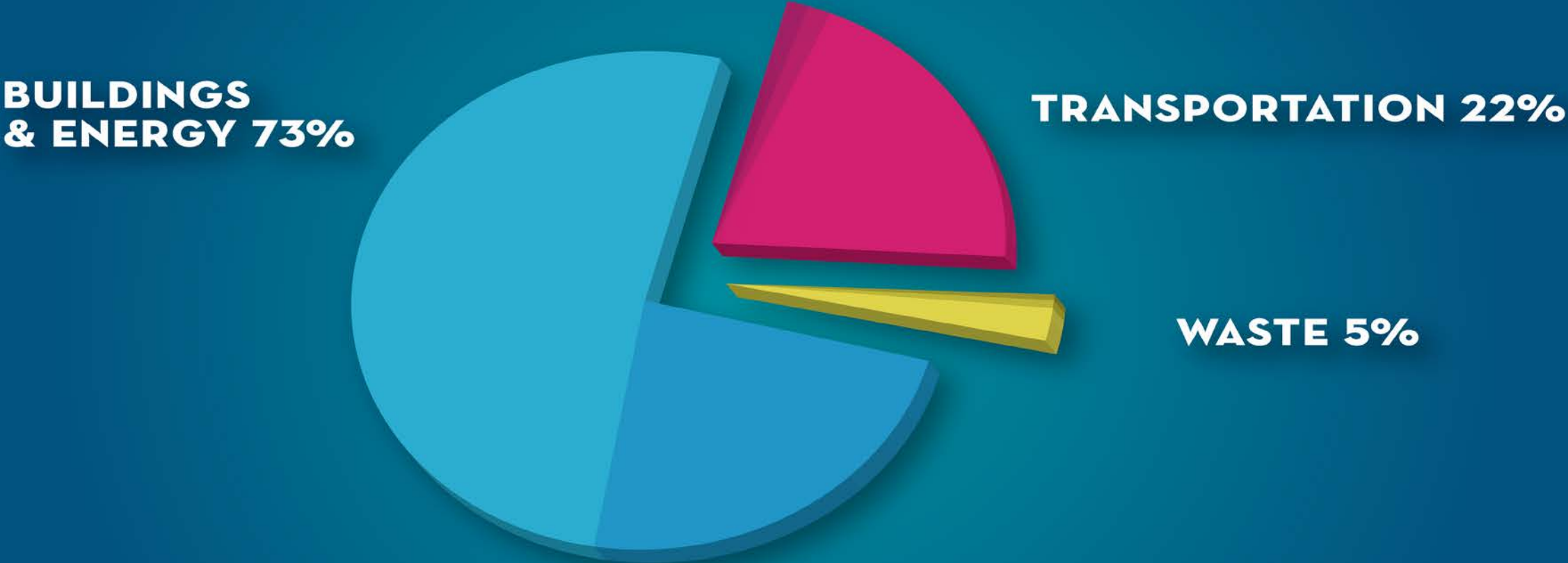


**Draft OSD 2017 NOx Emissions (tpd)**  
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



# District Greenhouse Gas Breakdown

## 2018 EMISSIONS BY SECTOR



**BUILDINGS & ENERGY**

- COMMERCIAL 70%
- RESIDENTIAL 30%

**TRANSPORTATION**

- PASSENGER VEHICLES 83%
- TRUCKS & BUSES 10%
- TRANSIT 7%

**WASTE**

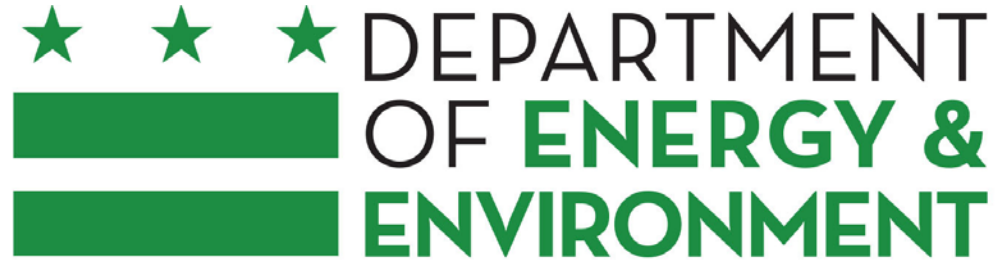
- LANDFILL 55%
- COMBUSTION 36%
- WASTEWATER 8%

# HOW DC MANAGES AQ/GHG

# The District's Key Agencies for AQ and GHG Management/Mitigation



District Department of Transportation



GOVERNMENT OF THE DISTRICT OF COLUMBIA



Government of the District of Columbia  
Department of For-Hire Vehicles



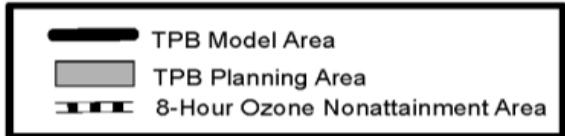
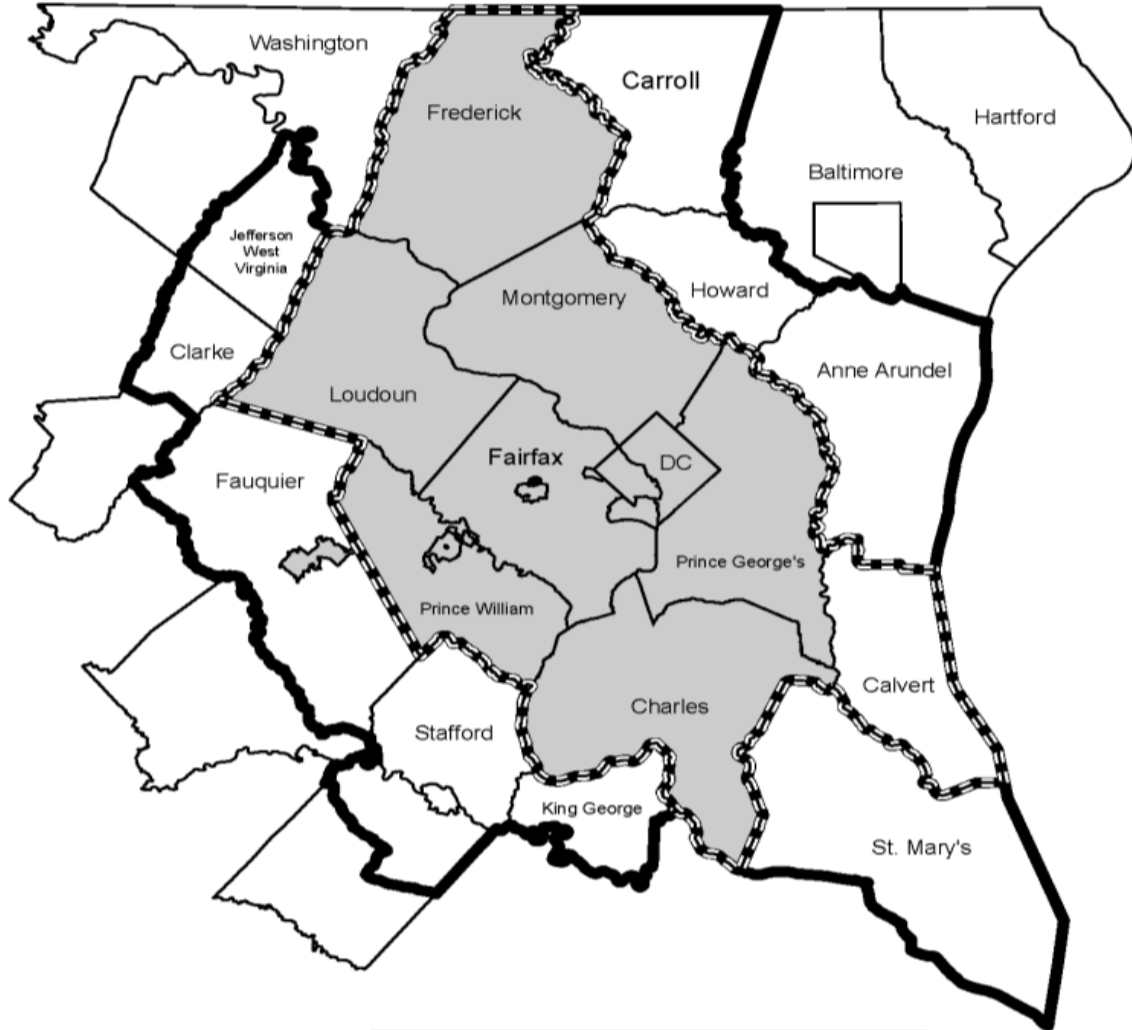
District of Columbia  
Office of Planning



d.  WE ARE WASHINGTON GOVERNMENT OF THE DISTRICT OF COLUMBIA  
MURIEL BOWSER, MAYOR



# The District Air Quality Management Partners



Metropolitan Washington Council of Governments



# District Greenhouse Gas Reduction Partners



Climate & Urban Systems Partnership

# Greenhouse Gas Reduction/Climate Change Planning

## A NEXT STEP IN CITY PLANNING

2013

**Sustainable DC**  
Envisioned a 20-year citywide plan for sustainability



2014

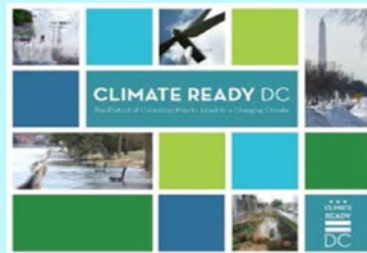
**moveDC**  
Set a 25-year vision for the District's transportation system



2021 UPDATE  
IN PROGRESS

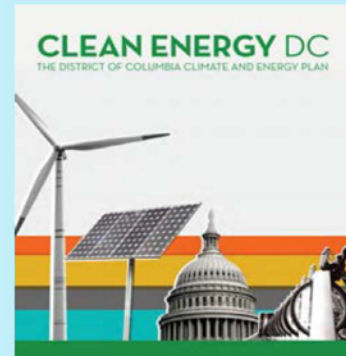
2016

**Climate Ready DC**  
Identified resilience strategies to address key climate risks



2018

**Clean Energy DC**  
Outlined a roadmap to achieve 50% GHG reduction by 2032



2019

**SDC 2.0**  
Updated the 2013 plan, recommitting to innovative and inclusive ways to meet sustainability goals by 2032

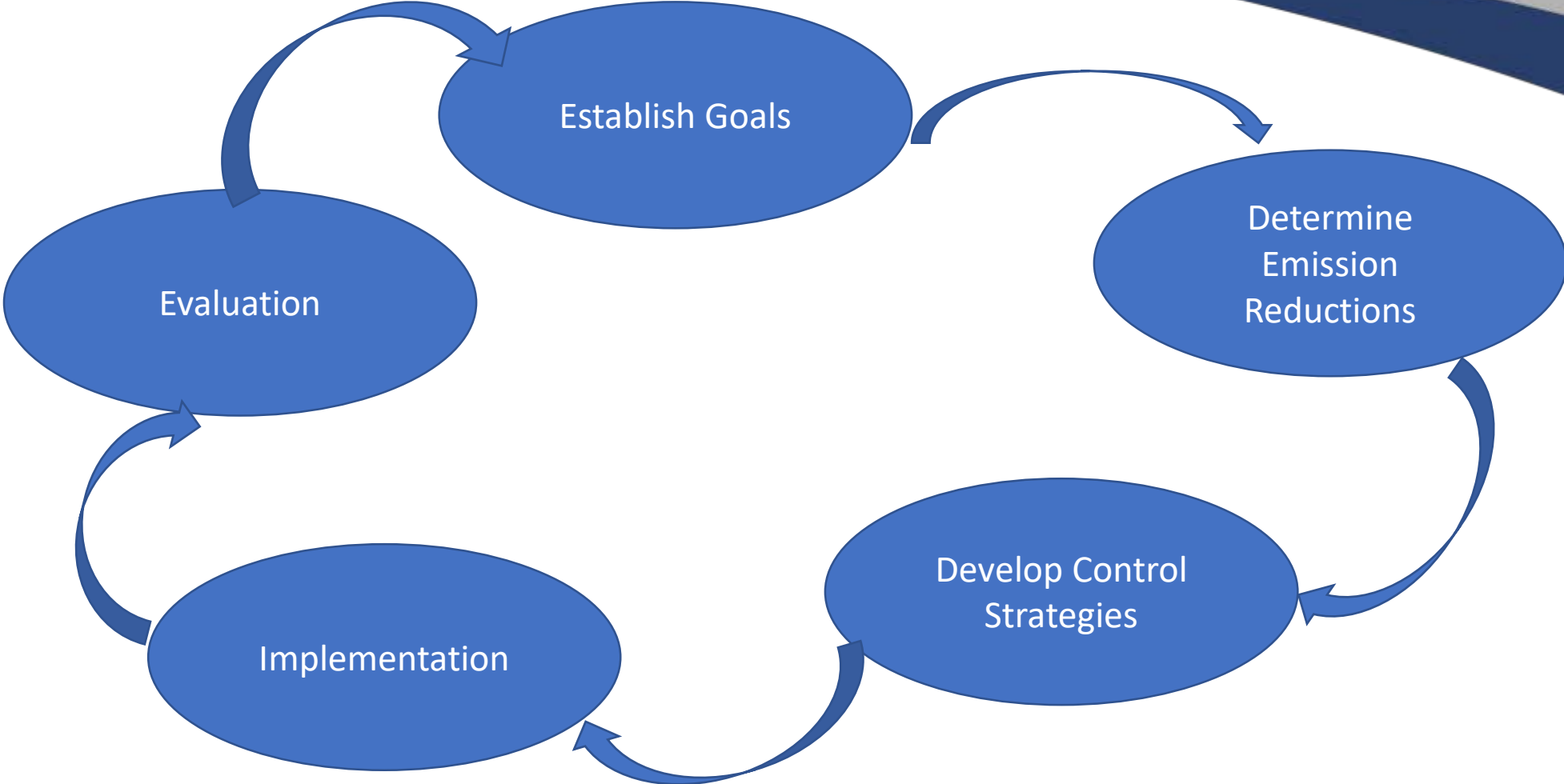


2020

**Carbon Free DC Strategy**  
Will chart the District's pathway to be carbon neutral by 2050

COMING  
SOON!

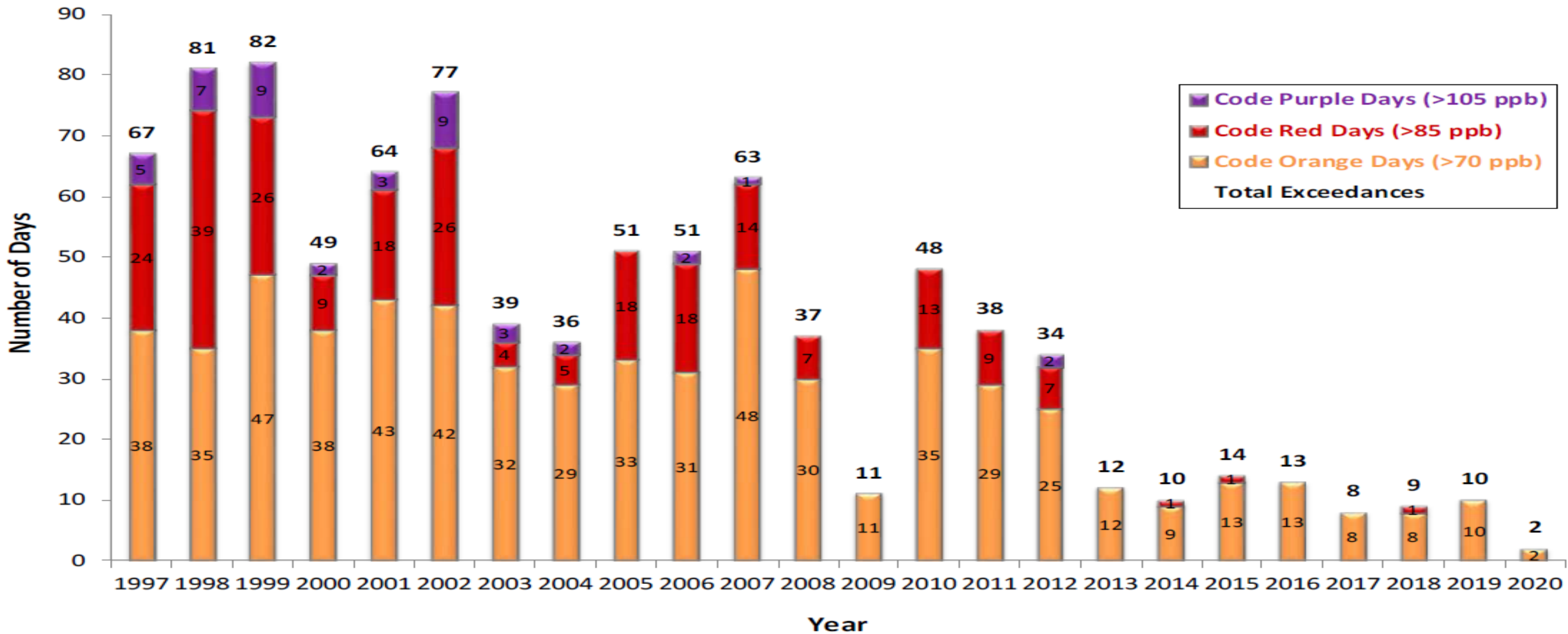
# District-Regional Air Quality and Greenhouse Gases Management Cycle



# HOW DC MITIGATES AQ/GHG

# Progress on Air Quality

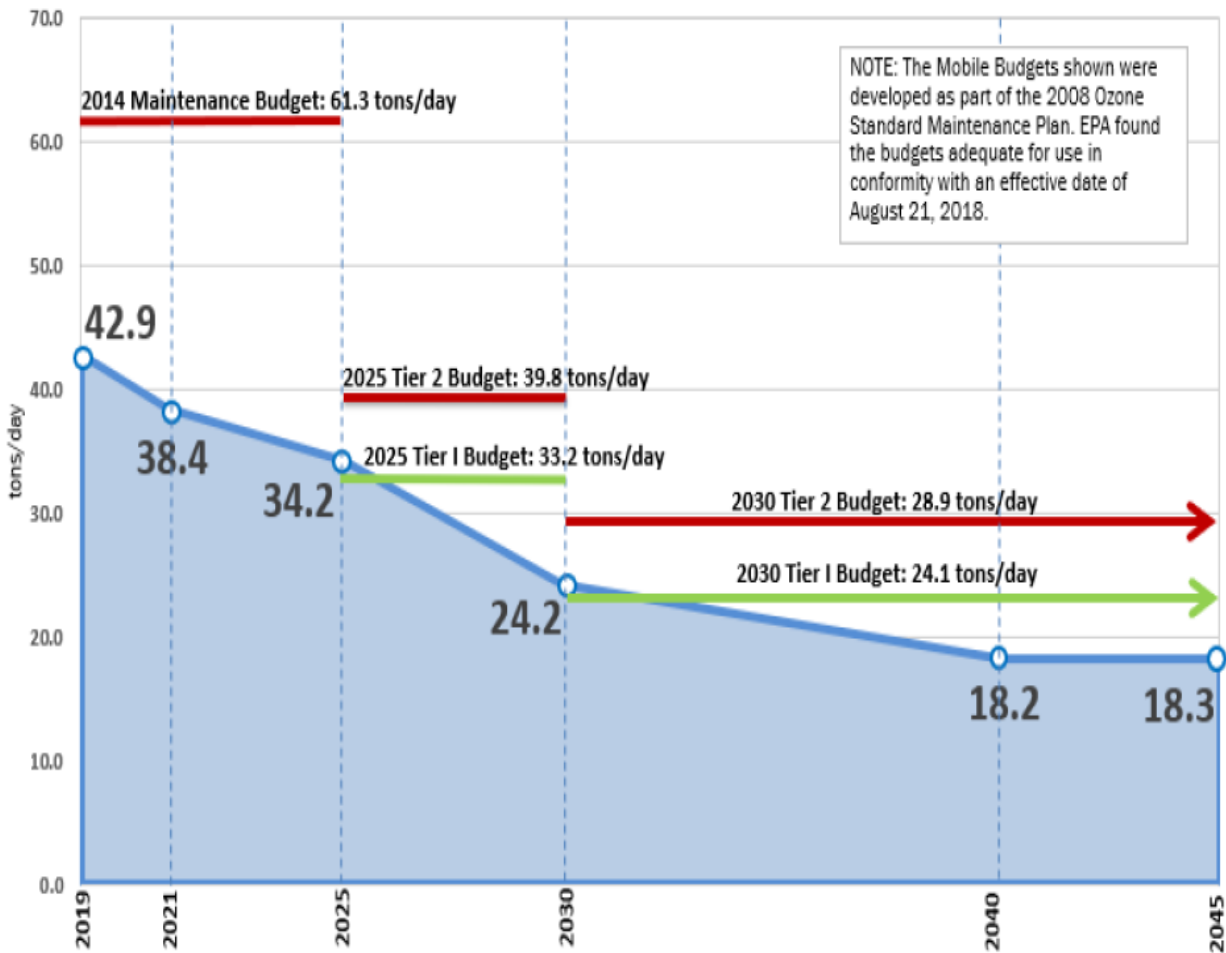
## Number of Exceedance Days Under the 2015 Ozone Standard (70 ppb)



Analysis is based on draft and incomplete data as of August 31, 2020.

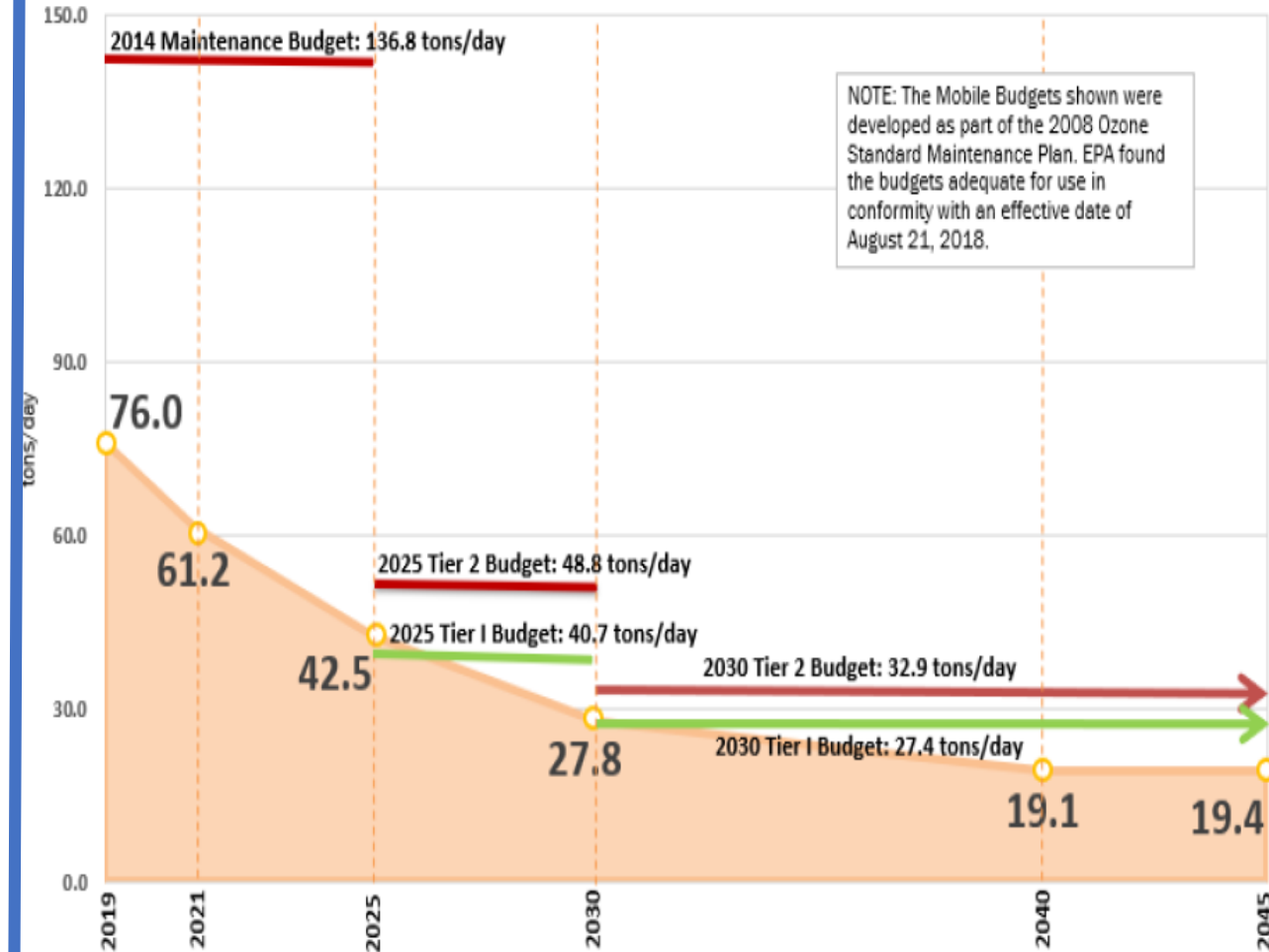
# Mobile Source Budget

**EXHIBIT 10**  
Mobile Source Emissions  
Ozone Season VOC



TCMs and TERMS not included in totals.

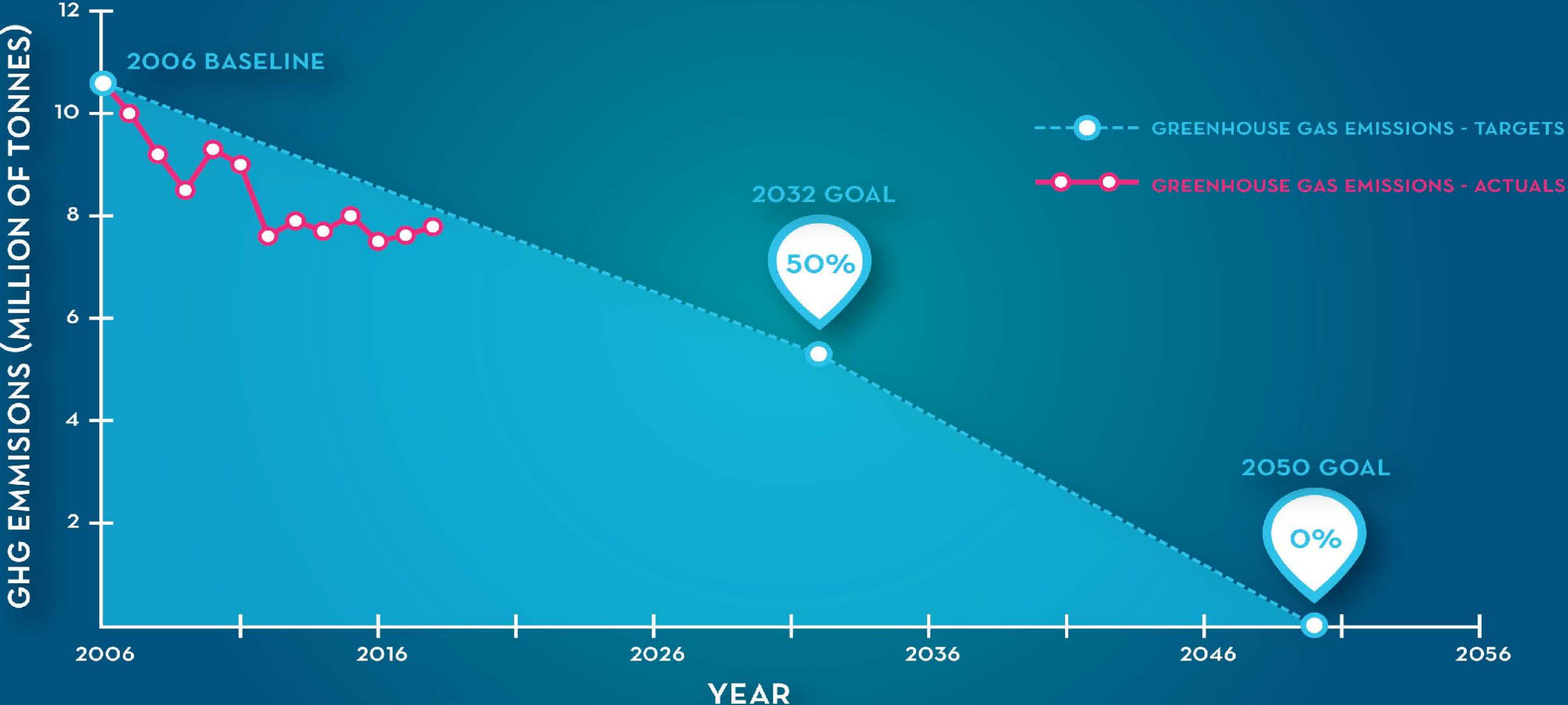
**EXHIBIT 11**  
Mobile Source Emissions  
Ozone Season NOx



TCMs and TERMS not included in totals.

# Greenhouse Gas Reduction Goals

## CITYWIDE EMISSIONS AND TARGETS





# Transportation Measures with Co-Benefit for AQ and GHG

## Community Wide

- Bus Rapid Transit
- Streetcar Project
- Capital Bike Share
- Bike Master Plan
- Performance Based Parking
- Anti-idling Initiatives
- Promoting car-sharing programs
- Changing the way plan the city
- Electric vehicle plug-in stations
- Electric Buses: DC Circulator
- Plant Trees

## Government Wide

- Employee car-sharing program
- Fleet change to electric vehicles
- Smaller police department vehicles
- Changing streetlights to LED
- Commuter benefits
- Alternative work schedules

# Actions that have Led to Success

- ❖ Ensure open access and transparency to data and decision-making
- ❖ Develop/Maintain trained workforce
- ❖ Training
- ❖ Integrate planning stakeholders
- ❖ Education
- ❖ DC Regulations
  - Hybrid Vehicle Excise Tax Exemption
  - Clean Energy DC Omnibus Act
- ❖ Balance cost and societal benefits
- ❖ Innovation
- ❖ Funding



# **PATH FORWARD AND CHALLENGES**

# Future Goals and Initiatives

- Future Goals

- ❖ By 2050: Carbon Free

- By 2032: 75% of commute trips made without cars
    - By 2045: All new cars registered in the District are electric

- ❖ Attainment of NAAQS:

- Demonstrate compliance of 2008 Ozone standard, 10 years into the future (2030)
    - Work on a plan for compliance of 2015 Ozone standard

- Co-benefit Initiatives

- ❖ Mobility and Mode Shift

- ❖ Transportation Electrification

- ❖ Transportation Energy Saving Initiatives



# Challenges

- Regional Scale
- VMT Concerns
- Congestion Pricing
- Climate Change
- Electrification Infrastructure



# Path Forward

- Hard Choices
- Legislation
- Public/Private
- Continued Commitments
- Post-Pandemic Outlook
- Federal Administration



# Q&A

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district department of transportation