

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

**OU Meteorology Field Trip
October 20, 2017**



North Central Texas
Council of Governments

THE BASICS: WHO WE ARE

North Central Texas Council of Governments (NCTCOG) is:

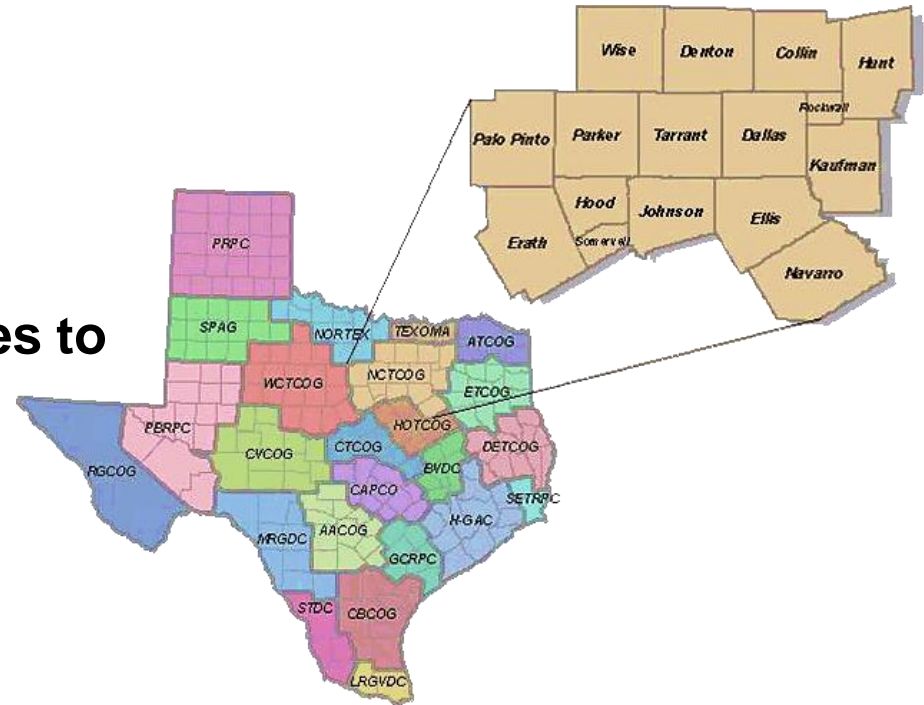
1 of 24 COGs Across Texas

364 Employees; 9 Departments

Transcend Jurisdictional Boundaries to Promote Sound Development

Facilitate Cooperation

Transportation Planning
Air Quality
Environmental Management
Demographic Research
Emergency Preparedness
Workforce Development



NORTH TEXAS AIR QUALITY 101

**OU Meteorology Field Trip
October 20, 2017**

**Shannon Stevenson
Program Manager**



North Central Texas
Council of Governments

TRANSPORTATION: WHO WE ARE

North Central Texas Council of Governments (NCTCOG) is:

Council of Governments

- Regional Coordination



Transportation: Metropolitan Planning Organization

- Transportation Planning
- Air Quality



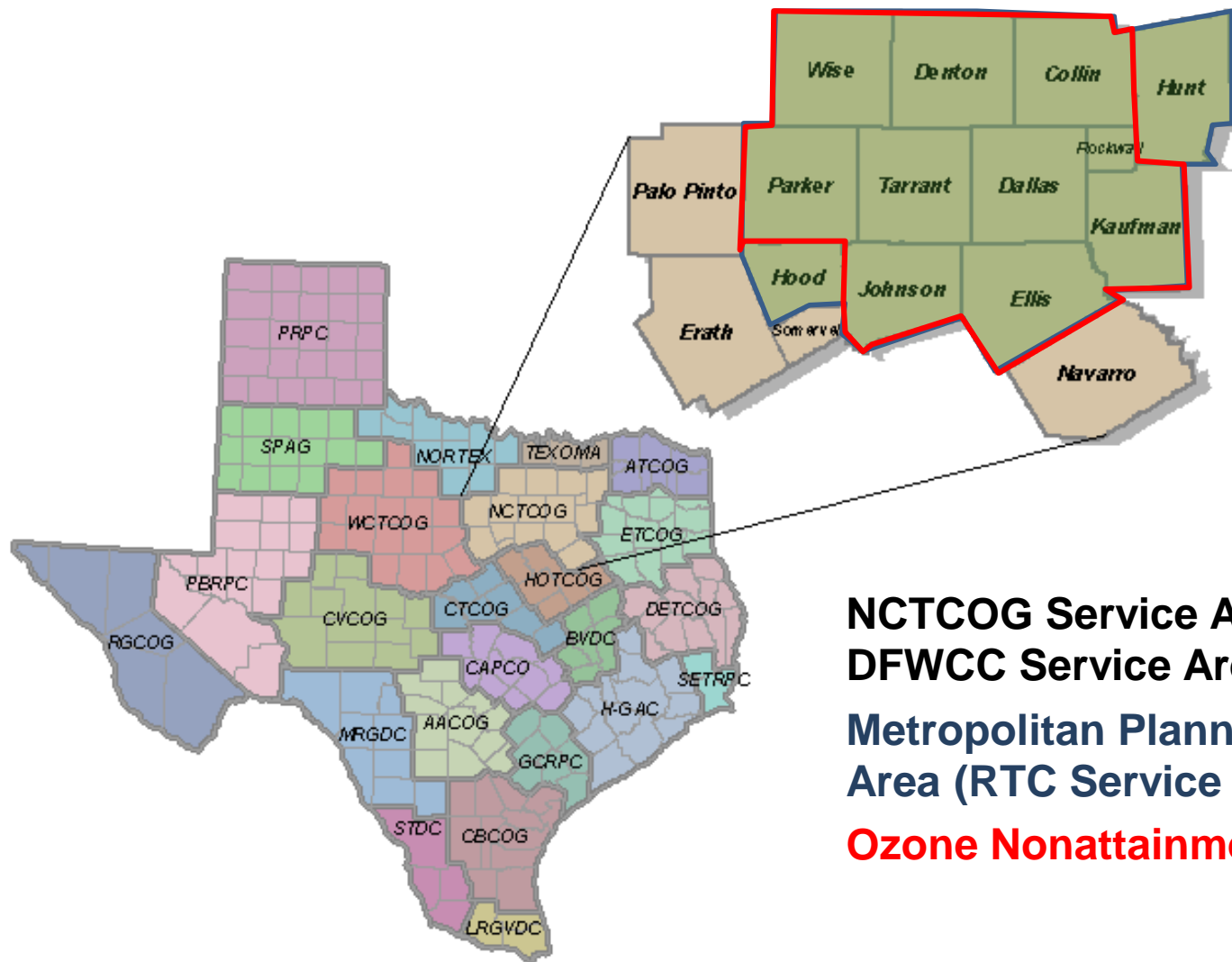
Dallas-Fort Worth Clean Cities (DFWCC) Coalition

- Petroleum Reduction
- Alternative Fuels



**Dallas-Fort Worth
CLEAN CITIES**

TRANSPORTATION: WHO WE ARE



NCTCOG Service Area
DFWCC Service Area
Metropolitan Planning Area (RTC Service Area)
Ozone Nonattainment Area

AIR QUALITY: WHO WE ARE

Air Quality Planning and Operations

By the Numbers

- 33 Dedicated Staff
- Over \$30 Million Annual Operating Budget
- Over \$159 Million Awarded in Competitive Grants
- Over 20 Programs/Projects/Initiatives

Purpose

- Develop & Implement Strategies to Reduce Emissions
- Support the State's Clean Air Plan
- Elements Include:
 - Successful Transportation Conformity
 - Emissions Inventories
 - Technology Improvements
 - Demonstration Programs
 - Partnerships & Collaborations
 - Regional Policies & Best Practices
 - Enforcement Measures



CRITERIA POLLUTANTS

Clean Air Act (CAA) Last Amended in 1990

Requires Environmental Protection Agency (EPA) to Set National Ambient Air Quality Standards (NAAQS) for 6 Criteria Pollutants:

Carbon Monoxide (CO)

Lead (Pb)

Nitrogen Oxides (NO_x)

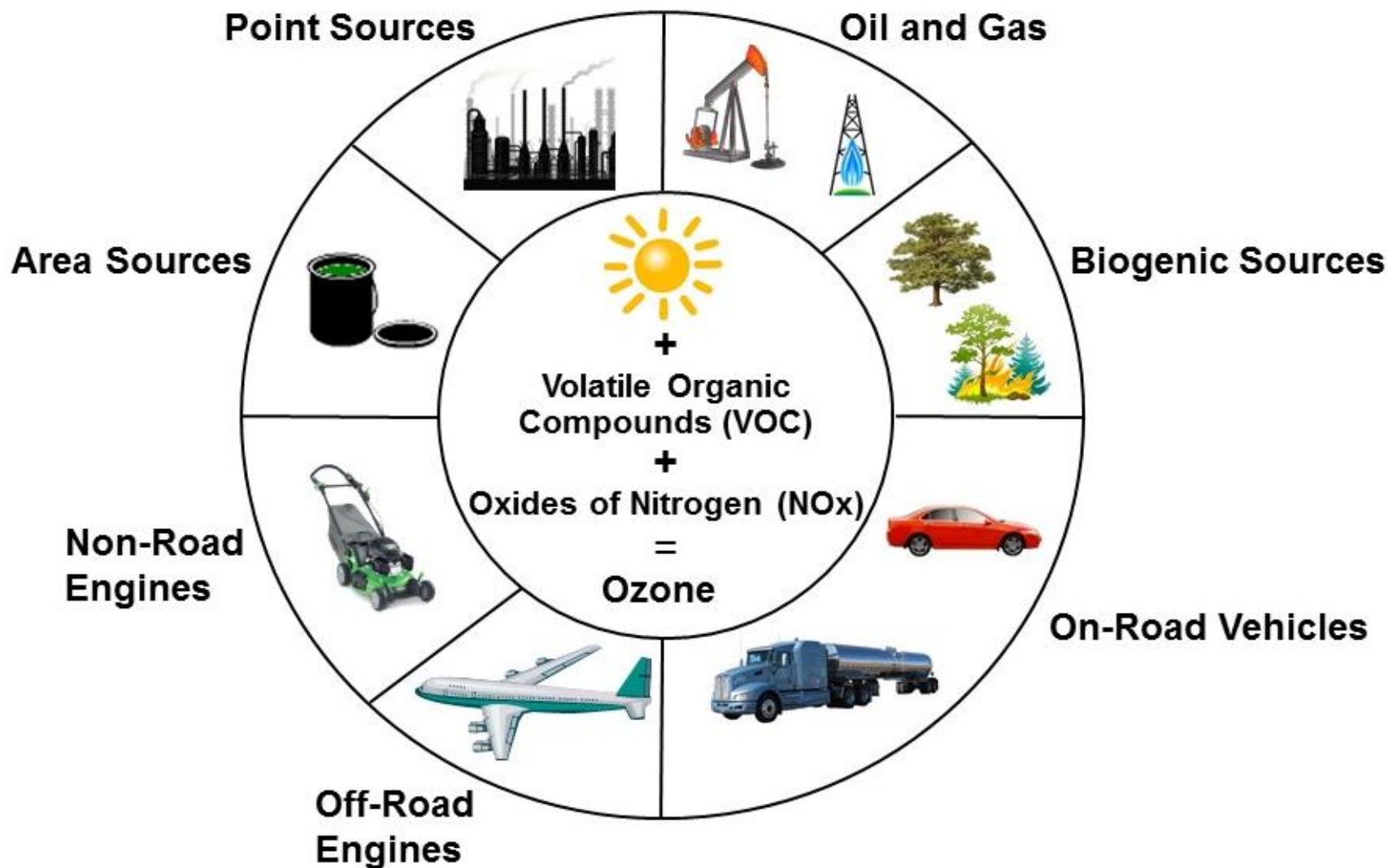
Ozone (O₃)

Particulate Matter (PM)

Sulfur Dioxide (SO₂)

EPA Must Complete a Review of NAAQS Every 5 Years

OZONE FORMATION



Optimum conditions for the formation of ozone include high temperatures and low winds.
Sections are not to scale and are for illustrative purposes only.

NONATTAINMENT REQUIREMENTS

New Source Review (NSR) Permit Program

Nonattainment NSR Permits – Required for New Major Sources or Major Sources Making a Major Modification

Economic Development: Indirect Impacts

Installation of Pollution Control Equipment, Limit Production, or Otherwise Find Reductions in Emissions by “Offsetting” in Order to Expand; and

Companies are Less Likely to Locate to a Nonattainment Area; and

Cost to Operate is Increased Because of Requirement to Install Pollution Controls or Enforce Stringent Operational Limits

State Implementation Plan Required

State Air Quality Plan for Meeting the NAAQS Prepared by a State or Local Air Quality Agency and Submitted to EPA for Approval

NONATTAINMENT TRANSPORTATION IMPACTS

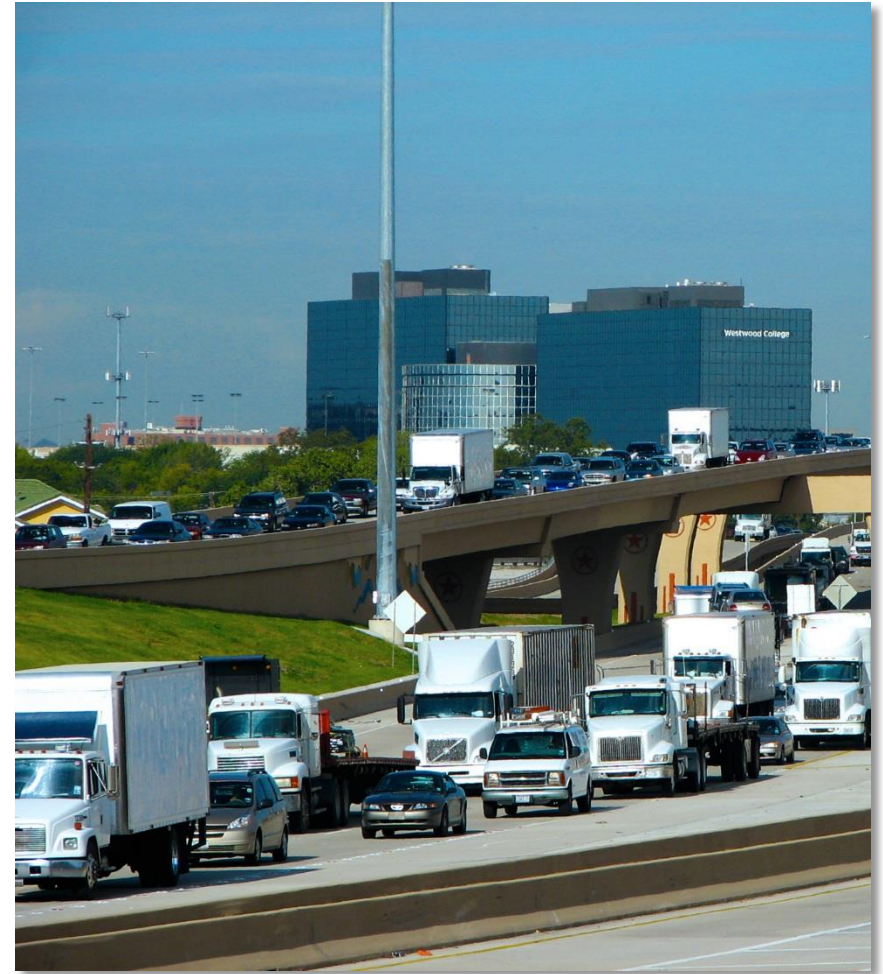
Transportation Conformity

**Air Quality Programs to Reduce
On-Road Mobile Emissions
Contributing to Ozone Formation**

**Congestion Mitigation and Air
Quality Improvement (CMAQ)
Program**

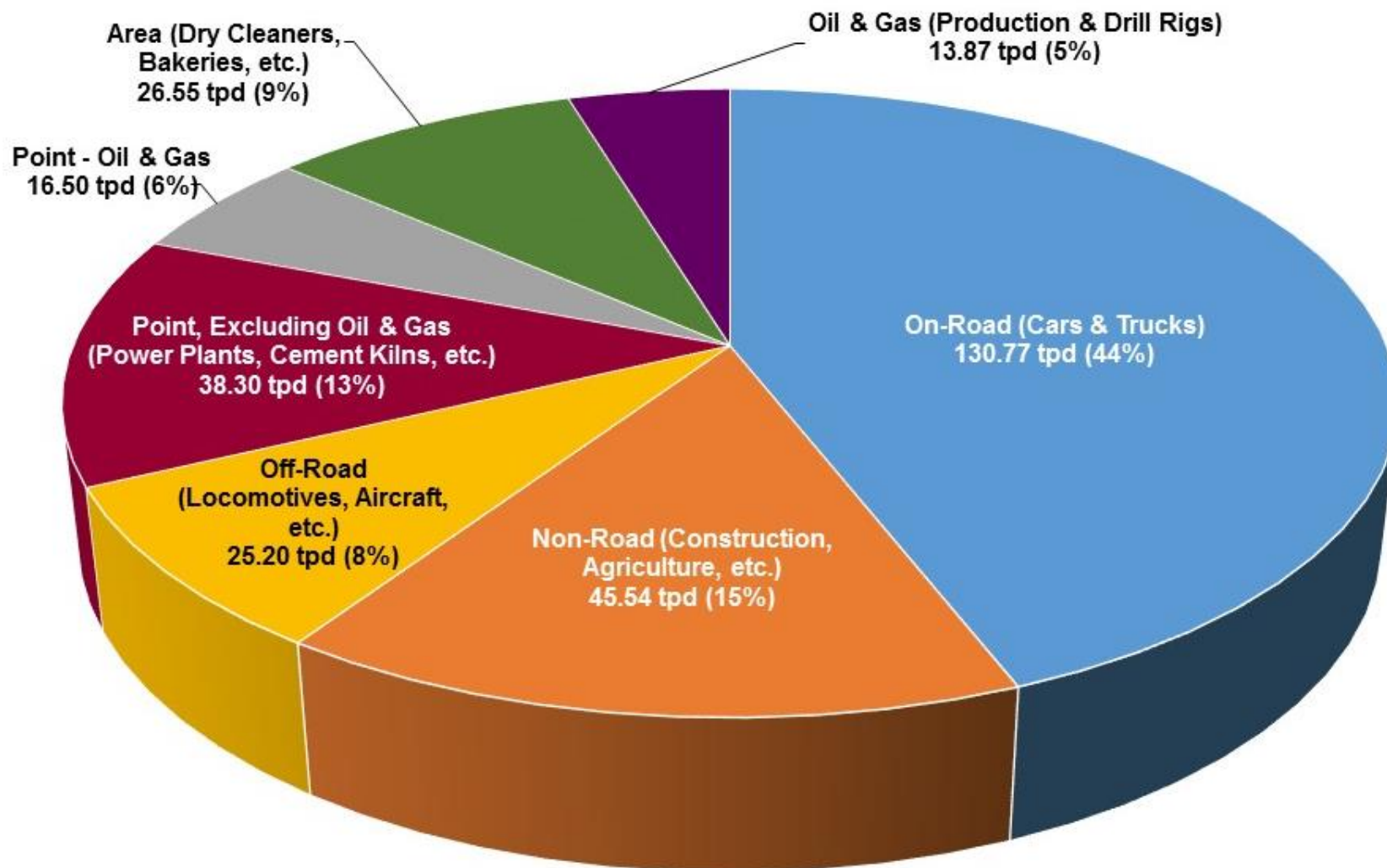
**On-Road Mobile Inventories for
Reasonable Further Progress
and Attainment Demonstration
State Implementation Plans (SIP)**

**Vehicle Inspection and
Maintenance Program**



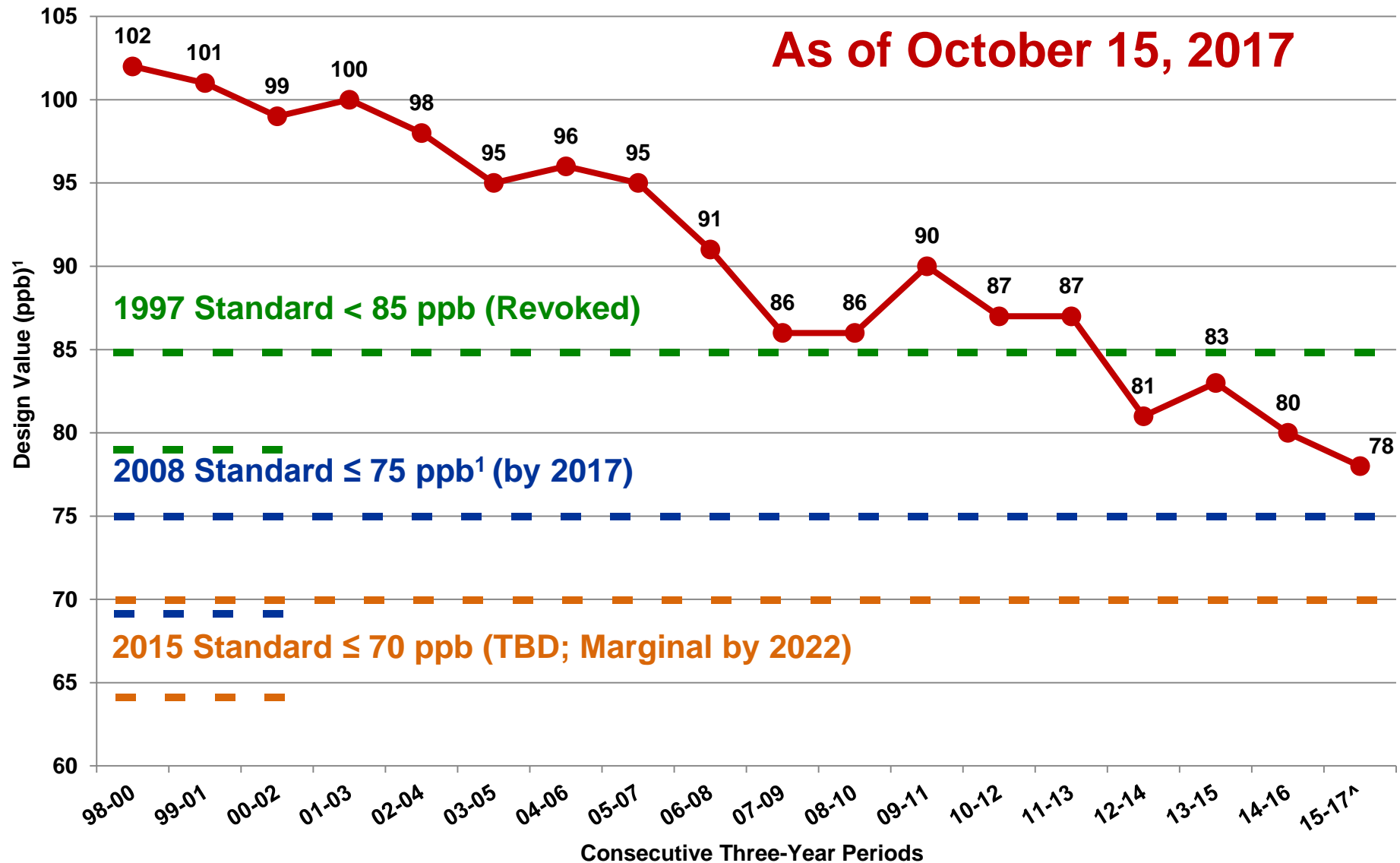
DFW EMISSIONS SOURCES

Oxides of Nitrogen (NO_x)



Total NO_x = 296.73 tons per day (tpd)

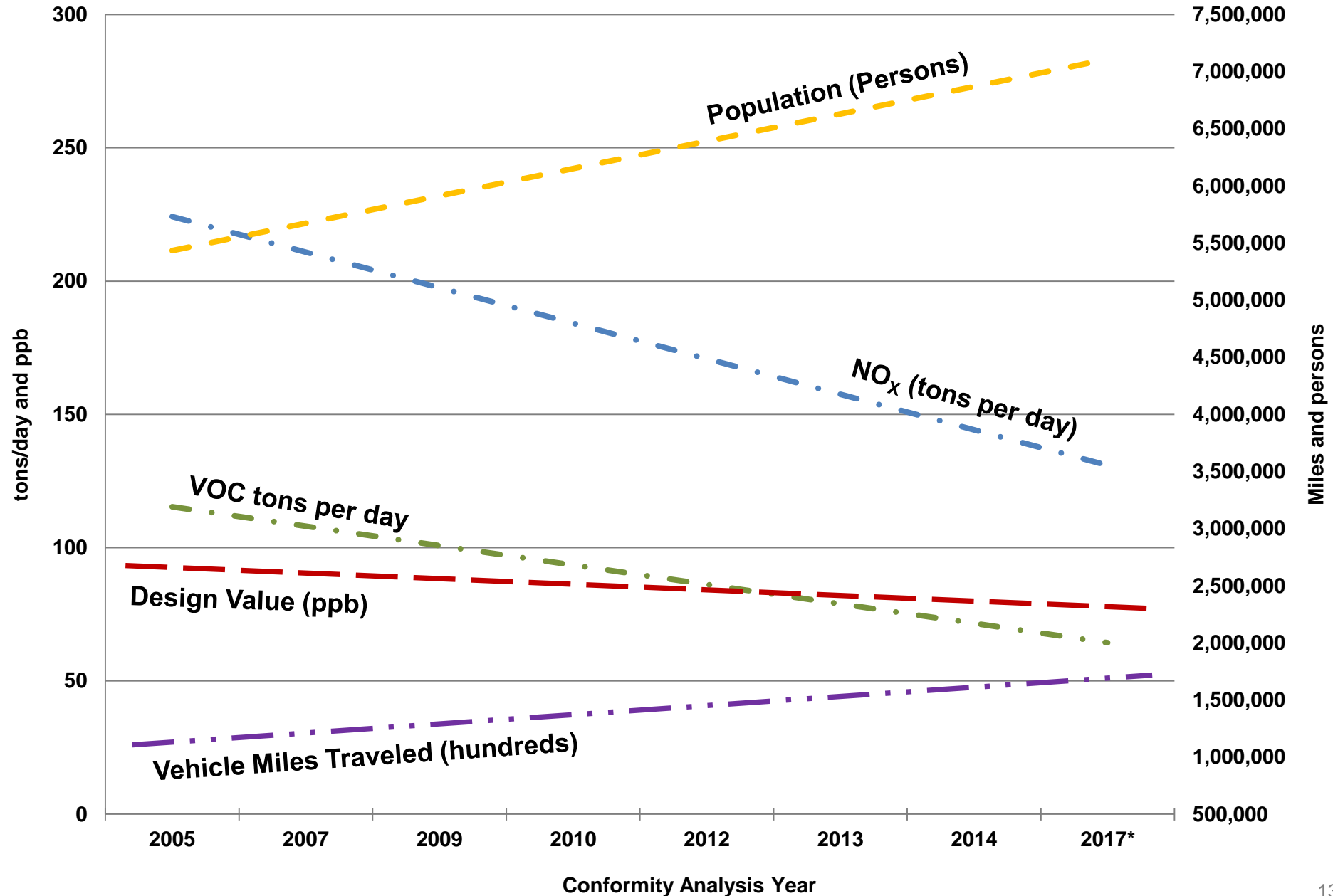
EIGHT-HOUR OZONE HISTORICAL TRENDS



¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

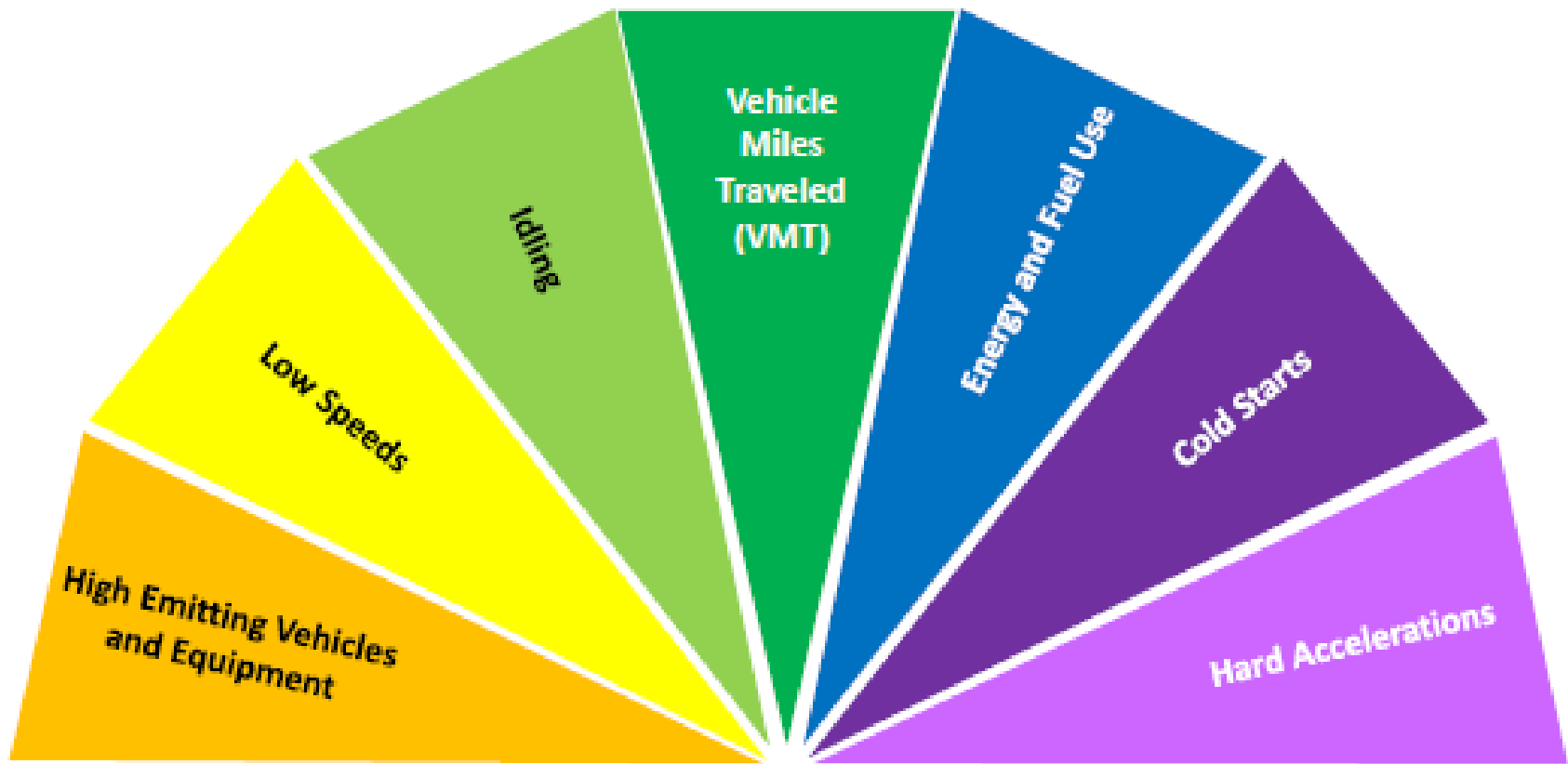
[^]Not a full year of data.

DESIGN VALUE AND DEMOGRAPHIC DATA



SEVEN AIR QUALITY EMPHASIS AREAS

Mobile Sources



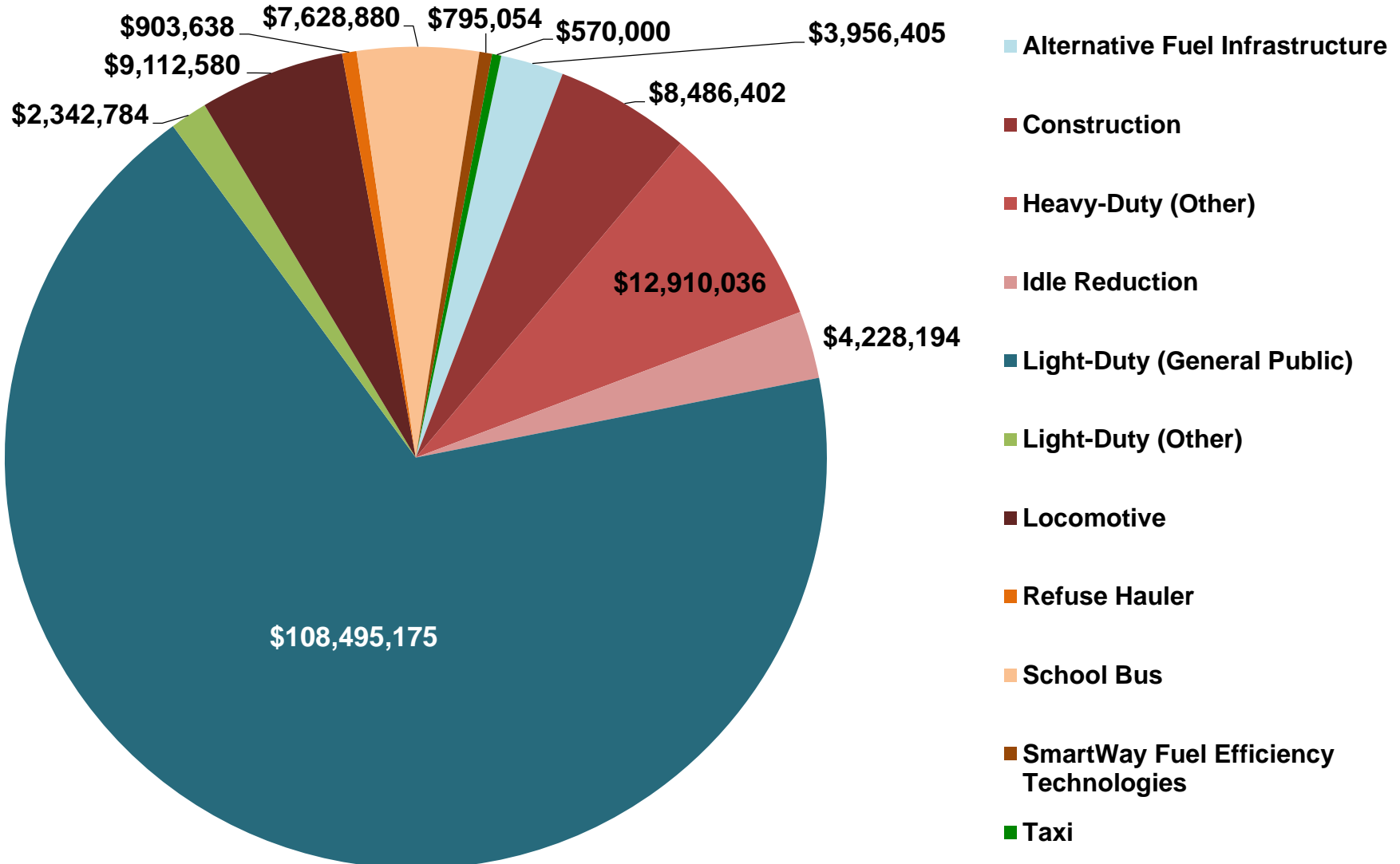
SAMPLE OF AIR QUALITY INITIATIVES



Rideshare. Record. Reward.



NCTCOG CLEAN VEHICLE FUNDING EFFORTS



DOLLARS AWARDED FROM 2006-2016; TOTAL = \$159,429,148

SELECT EXISTING AIR QUALITY INITIATIVES

Technology Improvements

AirCheckTexas Drive a Clean Machine
Electric Vehicles North Texas
Texas Emissions Reduction Plan
Clean Technologies Revolving Loan



Demonstration Programs

Pay-As-You-Drive Automobile Insurance Pilot
Enhanced Remote Sensing: Vehicle Emissions
Streamlined Heavy-Duty Emissions Determination (SHED) Phase I & Phase II
Oversize/Overweight Vehicles Emissions Impact
Idle-Free School Zones



SELECT EXISTING AIR QUALITY INITIATIVES

Policies & Processes

Clean Construction Specification

Clean Fleet Policy

Engine Off North Texas

Go Solar Texas

Preferential Parking for Alternative Fuel Vehicles



Outreach/Public Engagement/Enforcement

Air North Texas

Car Care Clinics

Regional Emissions Enforcement Program

Regional Smoking Vehicle Program

EPA SmartWay Affiliate/Saving Money and Reducing Truck Emissions Program



SELECT EXISTING AIR QUALITY INITIATIVES

Transportation System Management

Intersection Improvements

High Occupancy Vehicle/Managed Lanes

Intelligent Transportation Systems

Freeway/Arterial Bottleneck Removals

Traffic Signal Improvements

Truck Lane Restrictions



Travel Demand Management

Active Transportation Programs

Park and Ride Projects

Rail Transit

Try Parking It

Vanpool Programs



WHAT'S NEXT??

Modernize Legacy Fleet

- **53% of Diesel Fleet >14,000 GVWR is Model Years 1992-2009**

Volkswagen Settlement

Nonprofit Vehicle Donation Partnership

Alternative Fuel Vehicle Deployment Program

Update Building Codes to Support Electrification and Solar Deployment

Improve/Enhance Effectiveness of Existing Initiatives

- **Expand adoption and increase enforcement of anti-idling policies**
- **Standardize clean construction specification language**
- **Increase electrification**
- **Expand/Improve freight relations**

WHAT'S NEXT??

Legislative Efforts

Closely Monitor State and Federal Legislation to Identify Activity Related to Transportation and Air Quality to Actively Pursue, Support and Monitor

Past Examples

Pursue Additional Transportation Revenue

Pursue Full Funding of the AirCheckTexas Program

Support Ban of Hand-Held Communication Devices in Work Zones

Monitor Local Authority to Implement Red-Light Cameras



FOR MORE INFORMATION

**Shannon Stevenson
Program Manager**

817-608-2304

sstevenson@nctcog.org

www.nctcog.org/airquality

**Class of '98
BOOMER SOONER!!**

