

REGIONAL AIR QUALITY

**Irving City Council
Transportation and Natural Resources Committee**

July 18, 2018

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AIR QUALITY STANDARDS

Air quality regulations in the United States are based on a set of air quality standards known as National Ambient Air Quality Standards

The primary standards are set at levels to protect public health

Six categories of pollutants, known as “criteria pollutants”

Carbon Monoxide

Lead

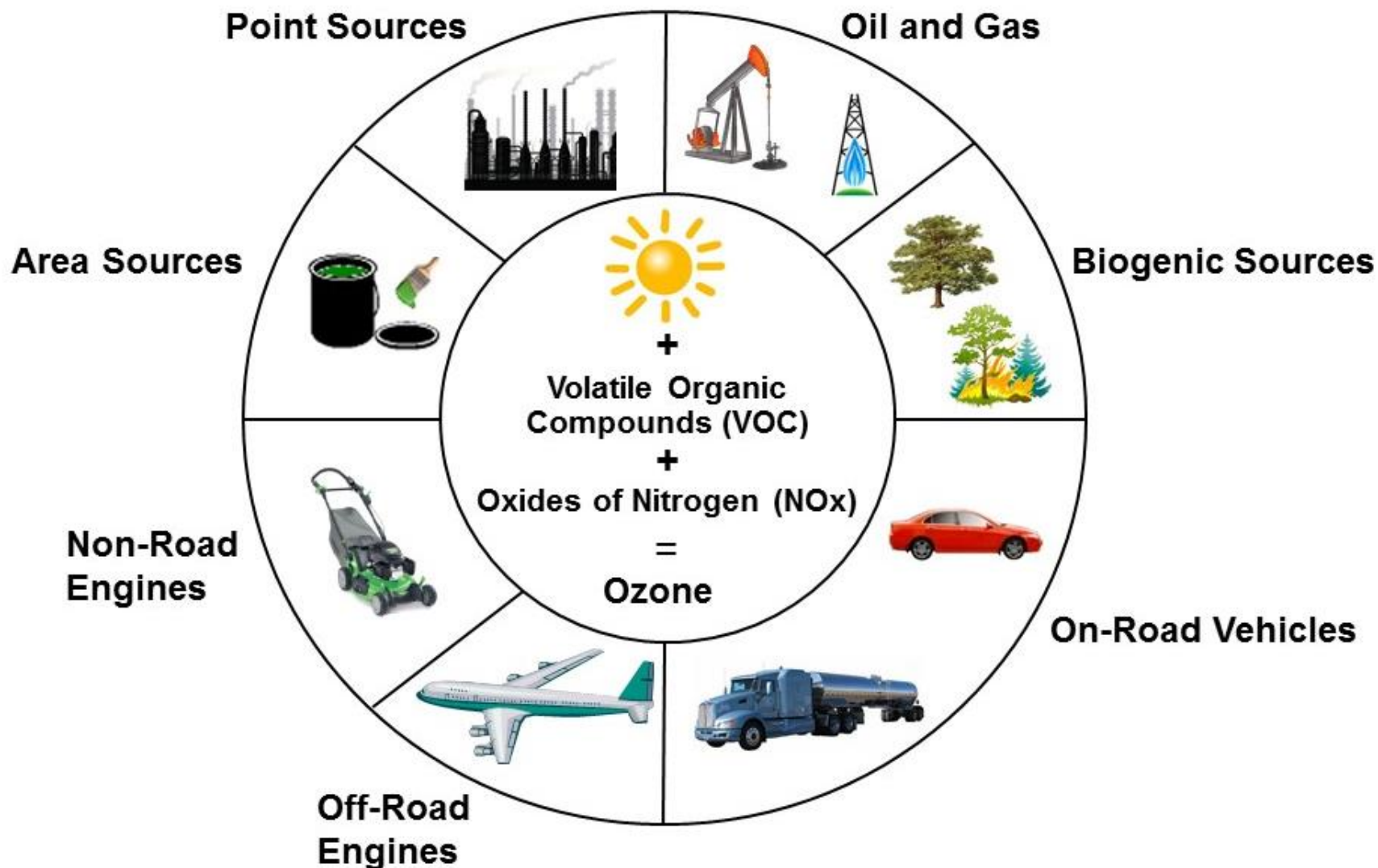
Nitrogen Dioxide

Particular Matter

Sulfur Dioxide

Ozone

HOW IS OZONE FORMED?



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

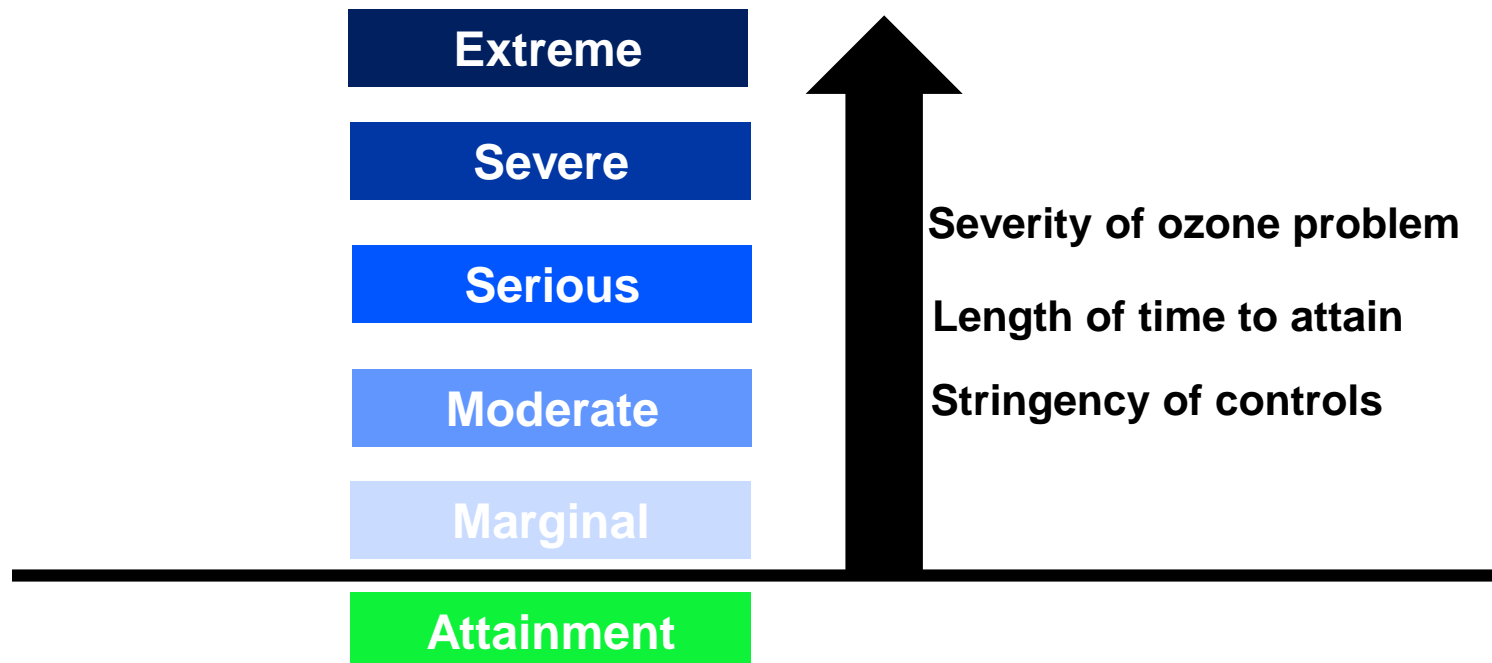
DESIGNATIONS AND CLASSIFICATIONS

Designations:

Attainment: Any area that meets the national air quality standard

Nonattainment: Any area that does not meet (or contributes to) the national air quality standard

Classifications:



8-HOUR OZONE NAAQS

1997 8-Hour Ozone NAAQS (85 ppb)

November 8, 2016

EPA issued Finding of Attainment for 9-County Region

2008 8-Hour Ozone NAAQS (75 ppb)

March 6, 2015

EPA Designated DFW 10-County Region as Moderate Nonattainment (Attainment Deadline: July 20, 2018)

2015 8-Hour Ozone NAAQS (70 ppb)

April 30, 2018

EPA signed Final Rule Classifying nine Counties as Marginal Nonattainment (Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Tarrant, and Wise)

August 3, 2018

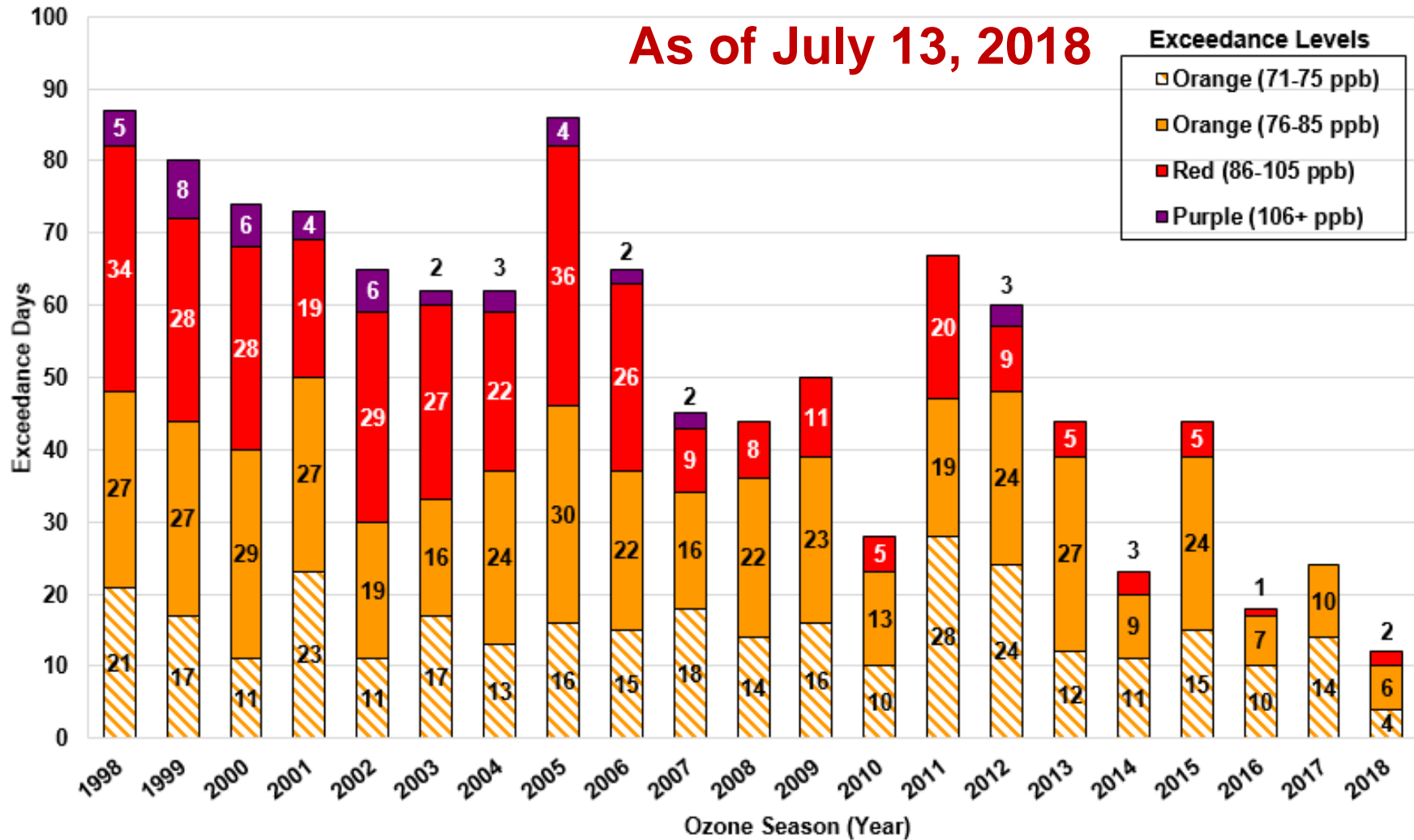
Classification Effective Date (Attainment Deadline: Summer 2021)

TBD (should be August 3, 2018)


Implementation Rule (Revoke Previous Standards?)

8-HOUR OZONE TRENDS

8-Hour Ozone Exceedance Days Based on ≤ 70 ppb



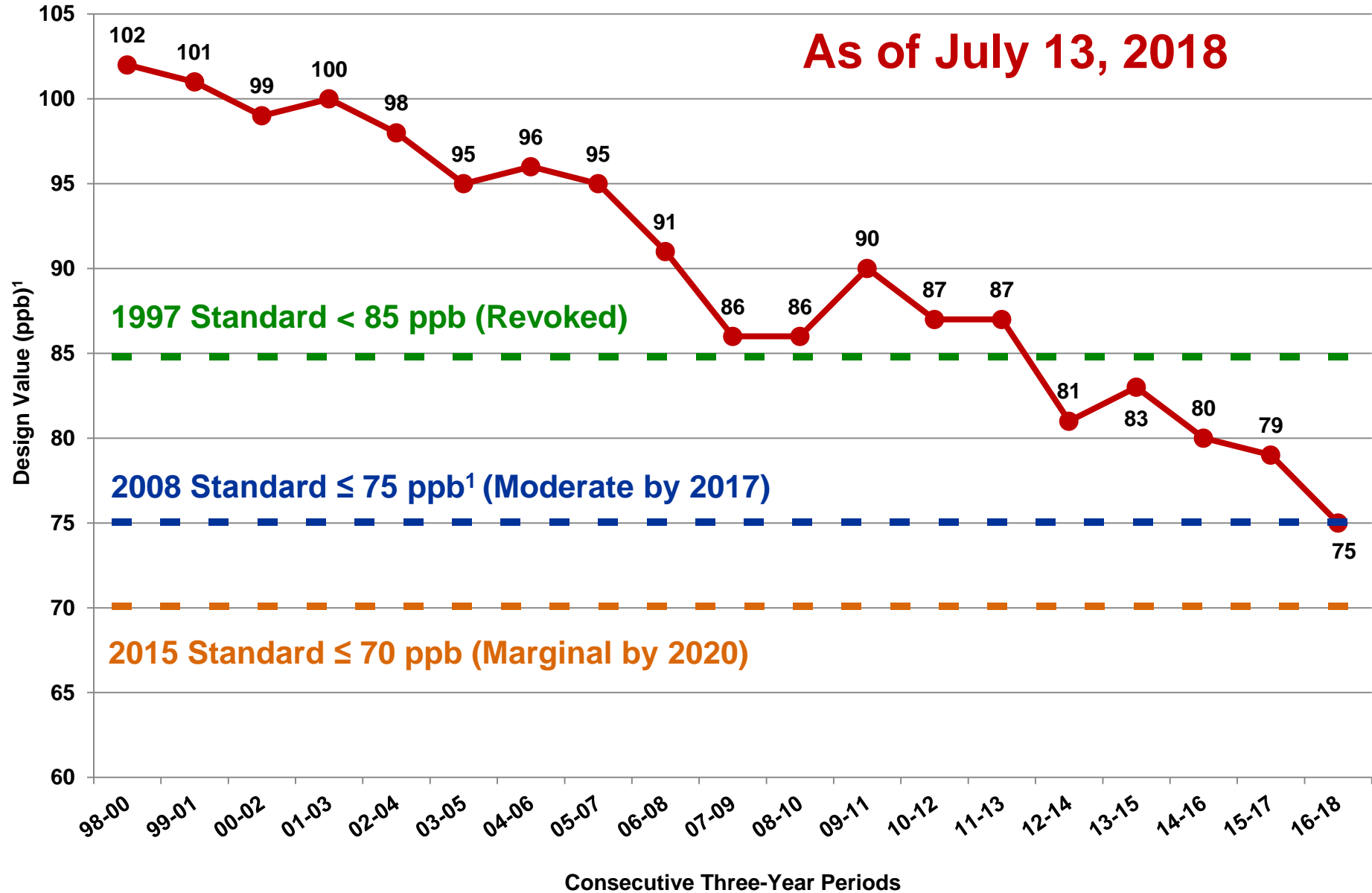
Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

 = Additional level orange exceedance days under the revised standard that were not exceedances under the previous 75 ppb standard. (AQI level orange = 71-75 ppb)

Source: TCEQ, http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl 6
ppb = parts per billion

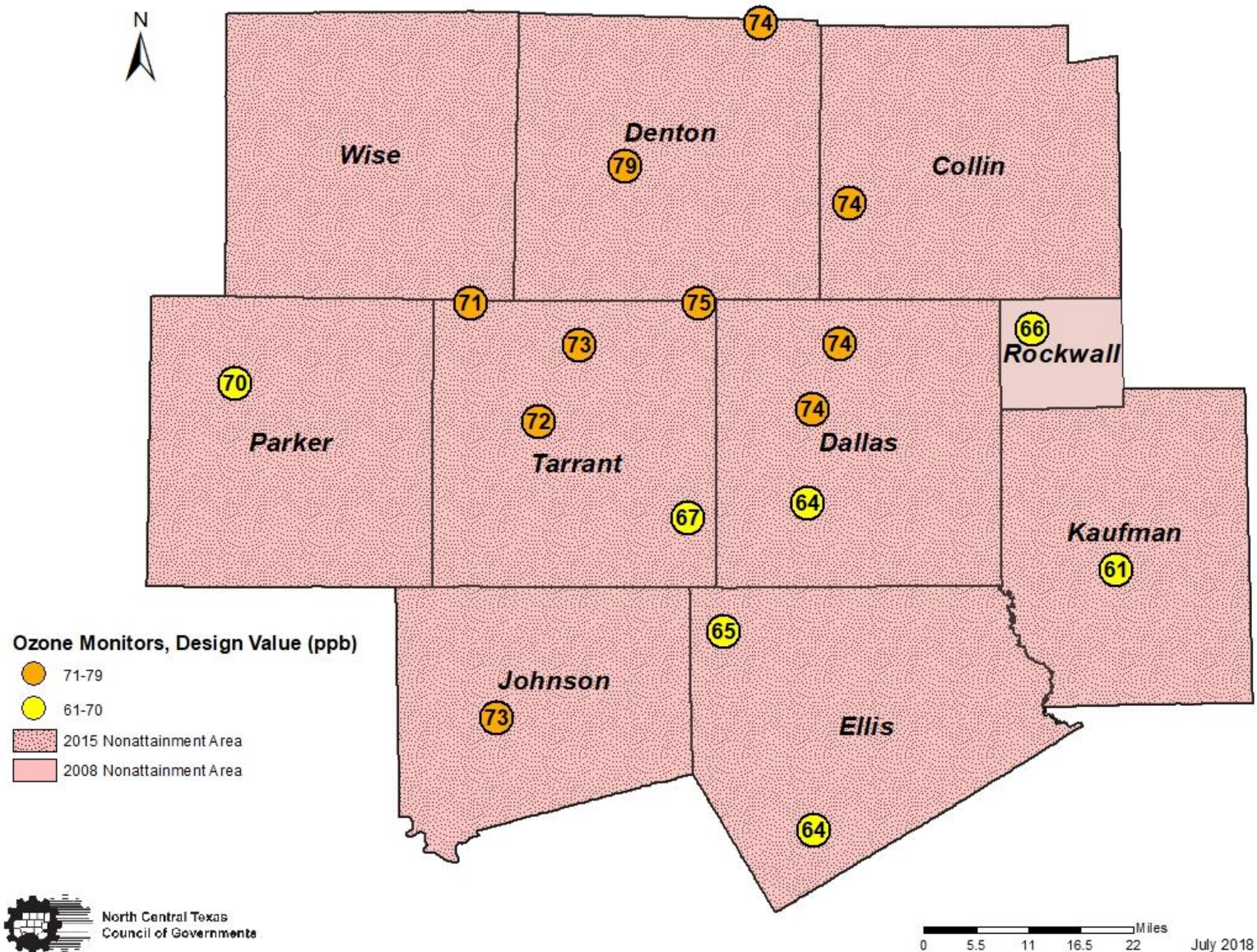
8-HOUR OZONE TRENDS

As of July 13, 2018



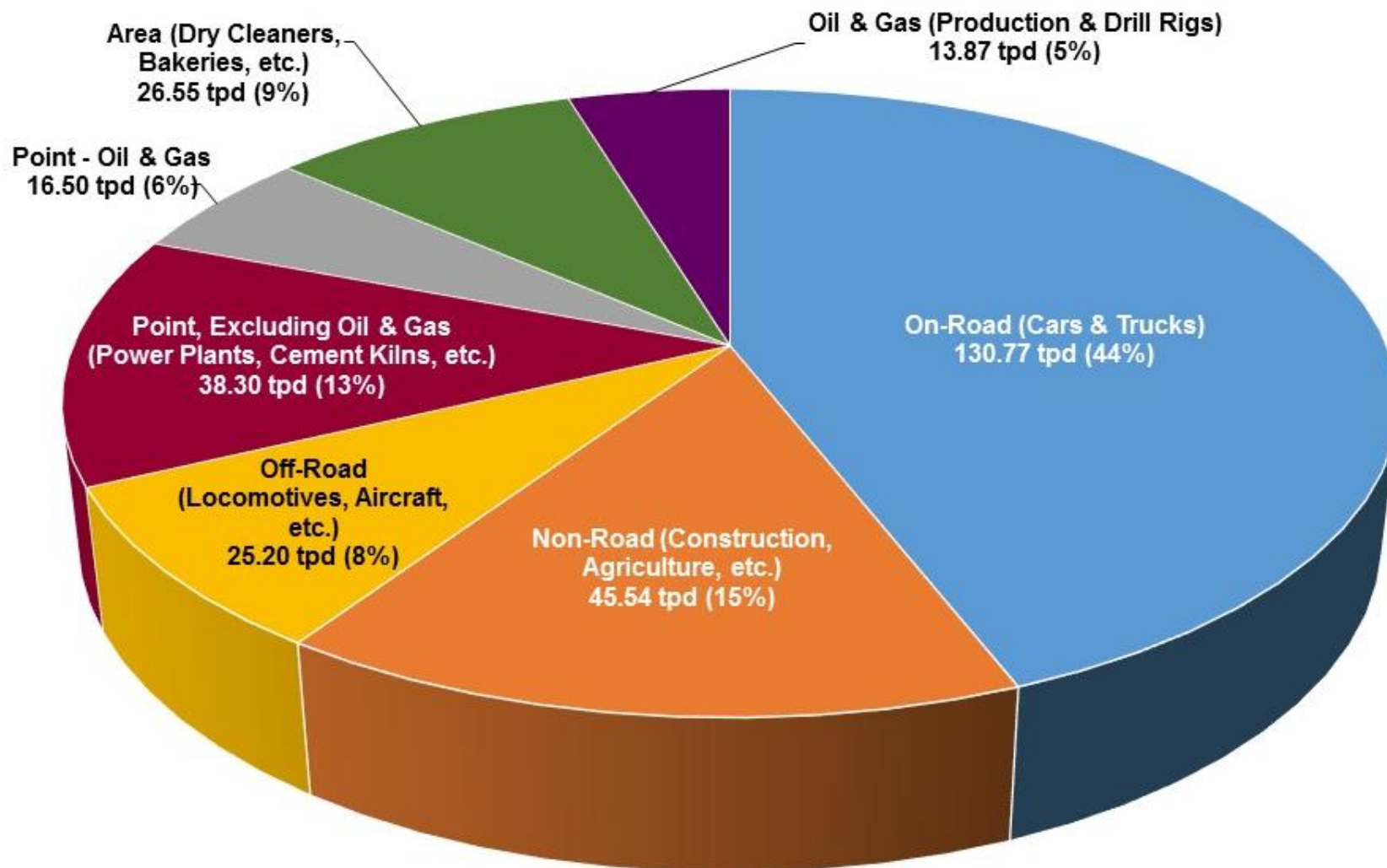
¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 75 parts per billion (ppb).

DFW OZONE NONATTAINMENT AREA



DFW EMISSIONS SOURCES

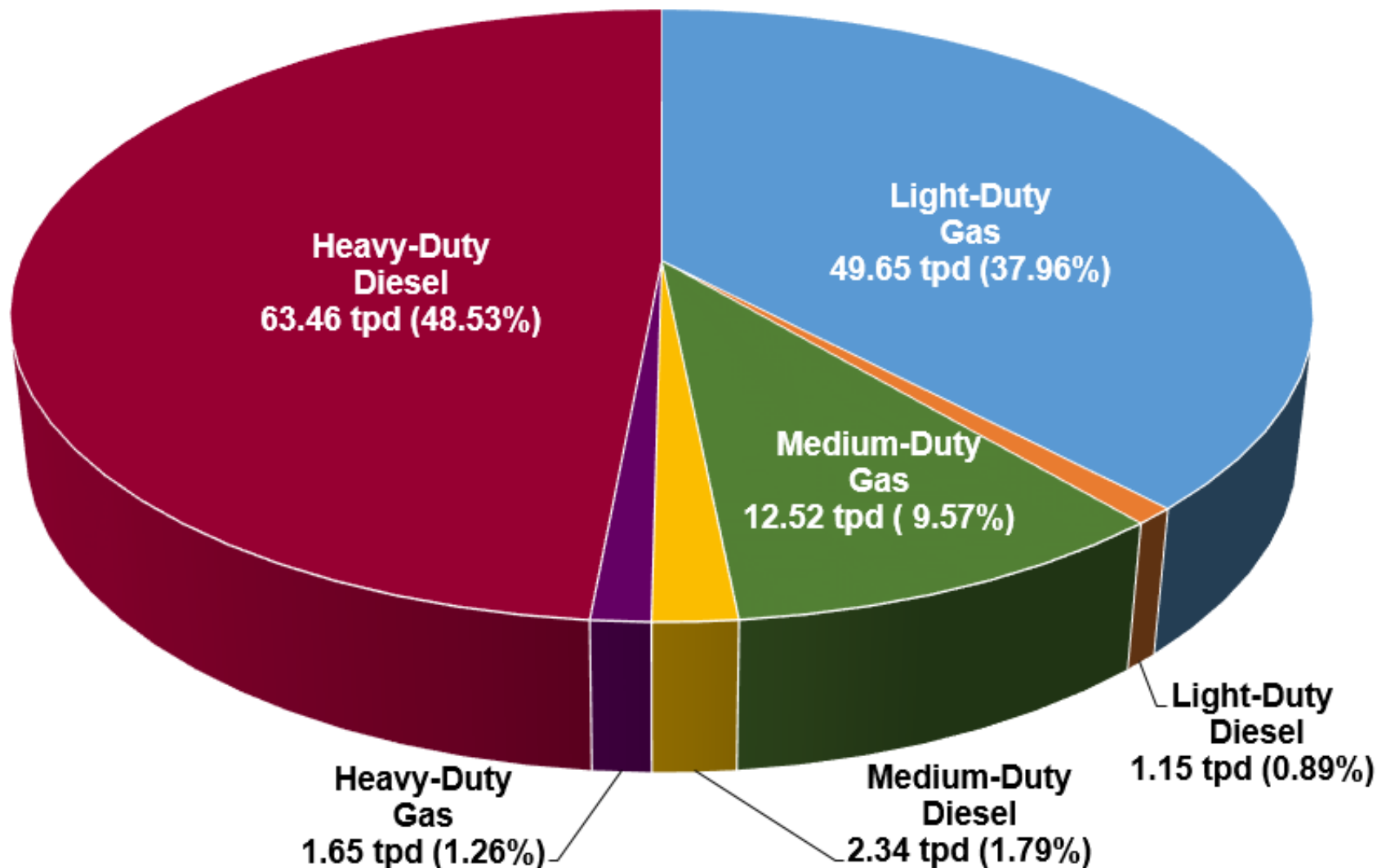
Oxides of Nitrogen (NO_x)



Total NO_x = 296.73 tons per day (tpd)

DFW EMISSIONS SOURCES

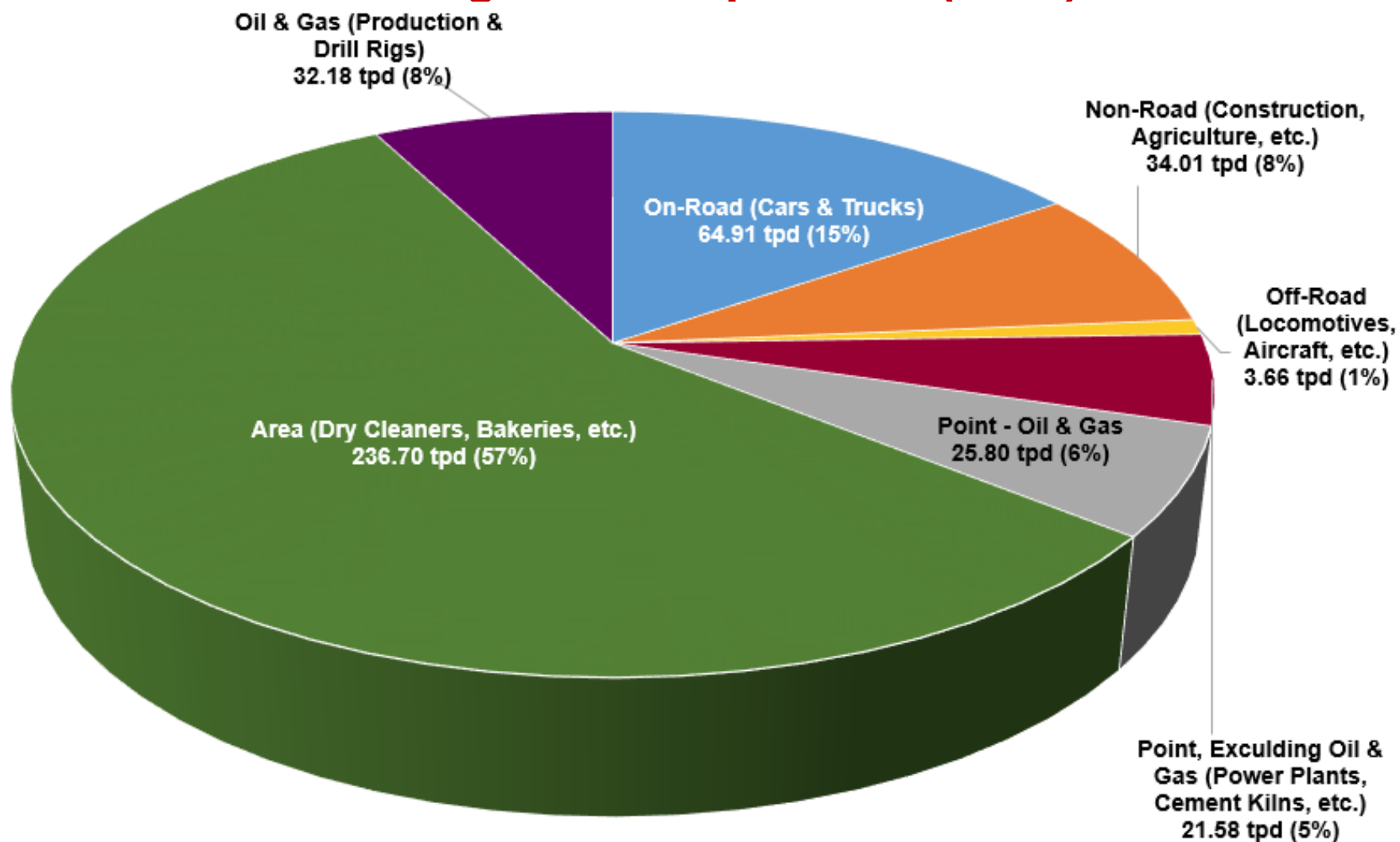
Estimated NO_x On-Road Sources



Total NO_x = 130.77 tons per day (tpd)

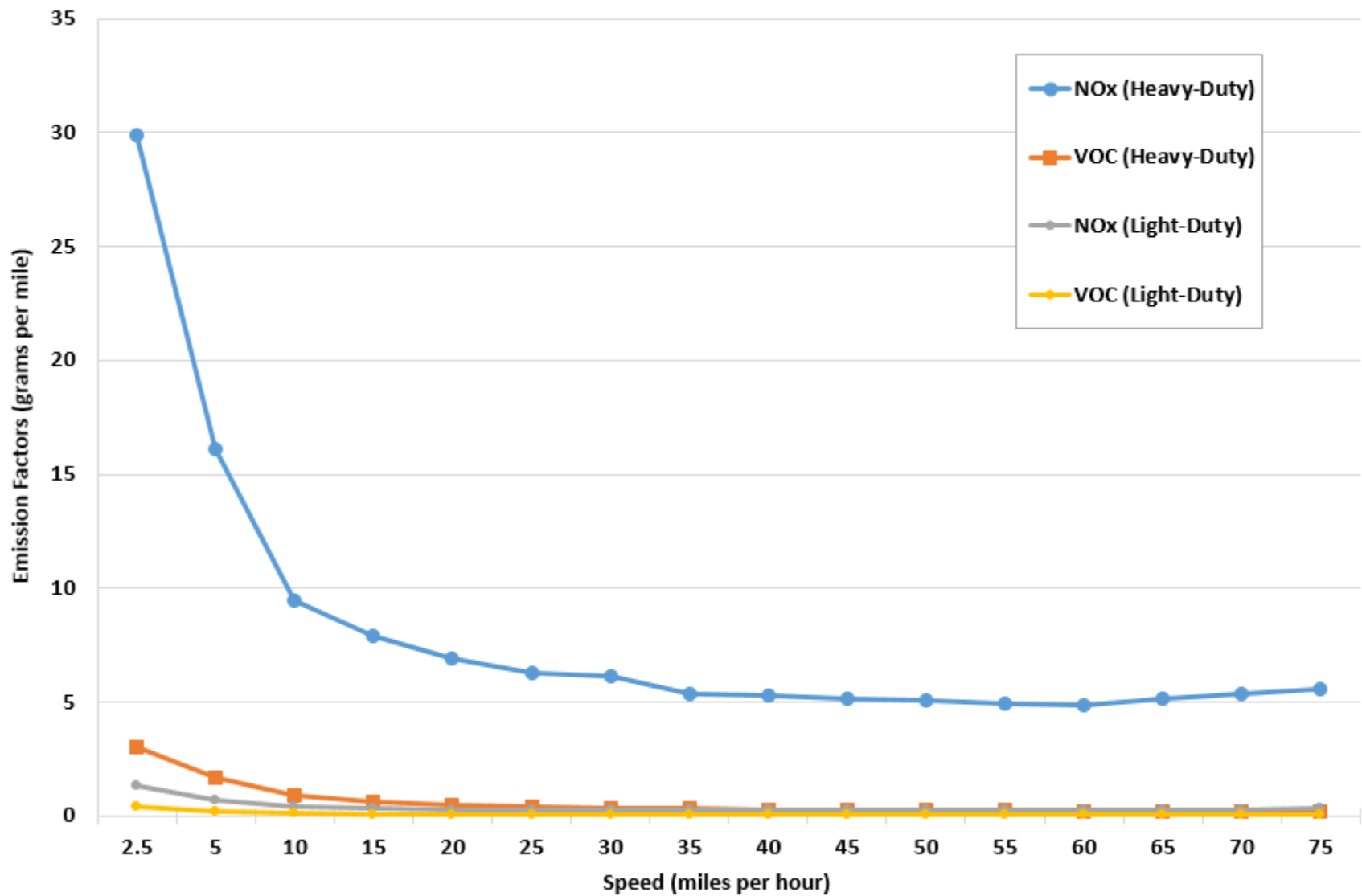
DFW EMISSIONS SOURCES

Volatile Organic Compounds (VOC)

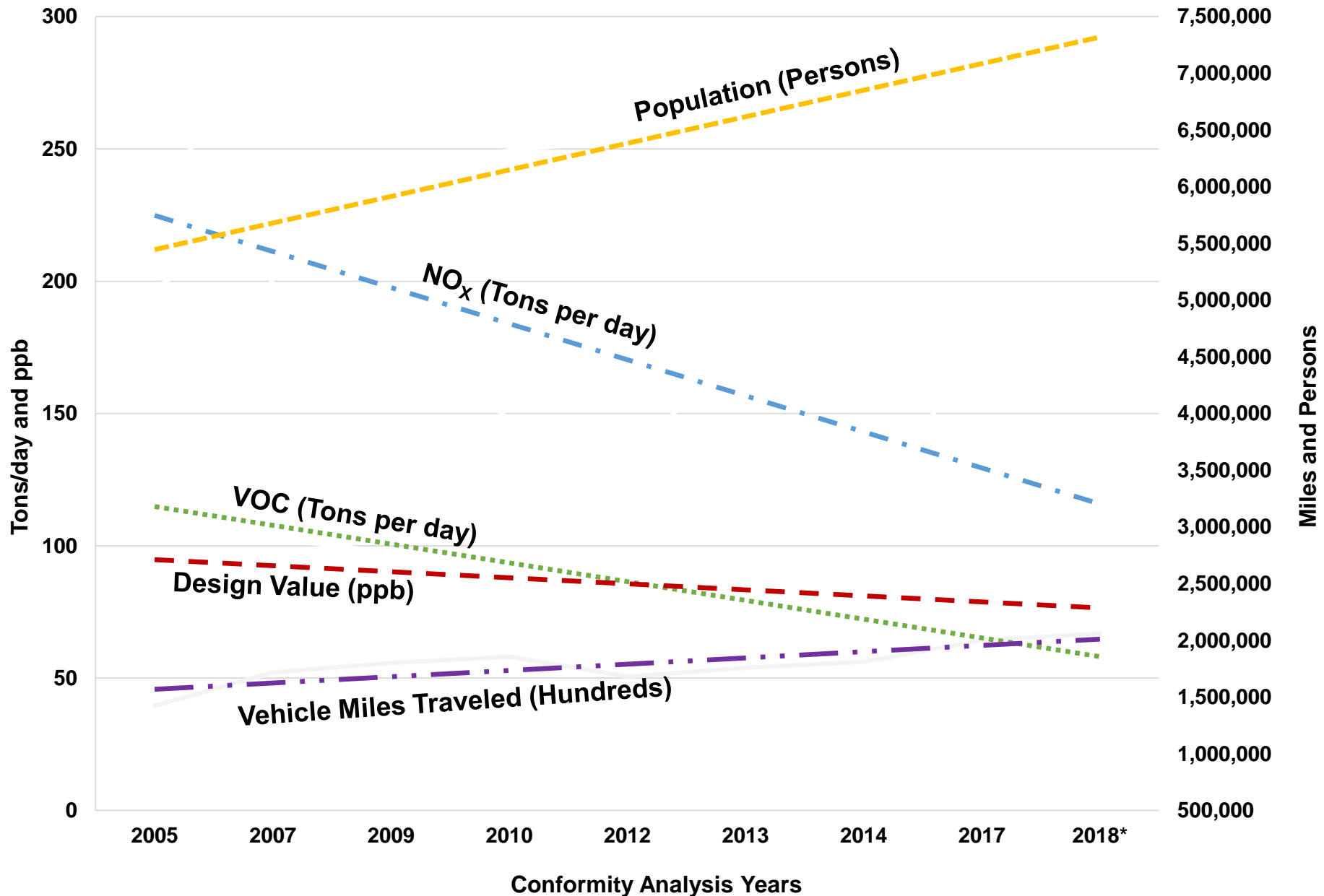


Total VOC = 418.84 tons per day (tpd)

EMISSION FACTORS VS SPEEDS



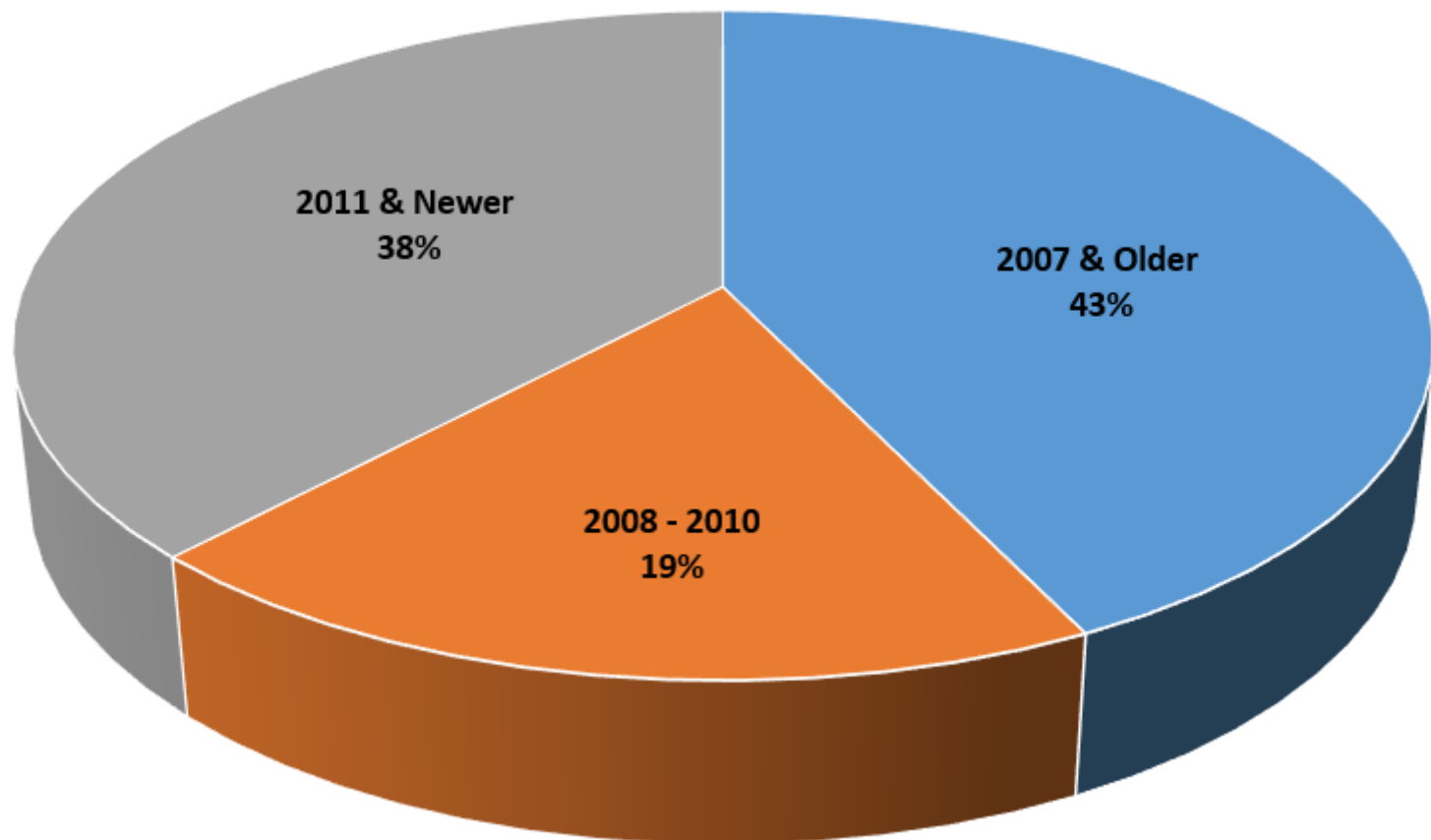
DESIGN VALUE AND DEMOGRAPHIC DATA



*2018 design value data current as of 07/1/2018

HEAVY-DUTY DIESEL VEHICLE¹ AGE DISTRIBUTION

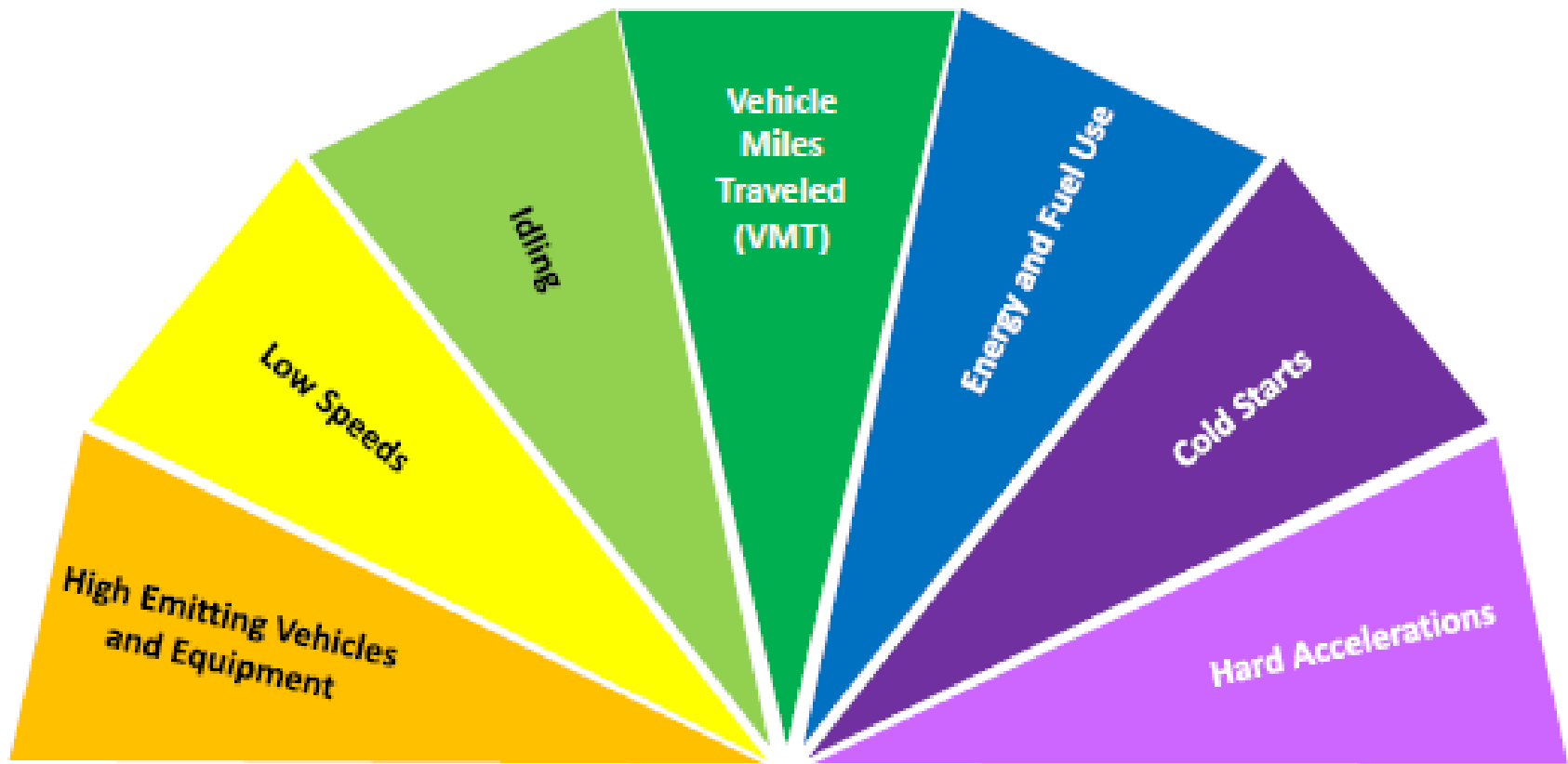
**DFW 10-County Nonattainment Region
(Greater than 26,000 Gross Vehicle Weight Rating)**



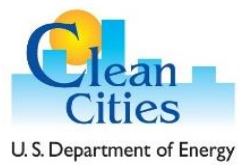
¹Based on 2014 Texas Department of Motor Vehicles registration data

SEVEN AIR QUALITY EMPHASIS AREAS

Mobile Sources



SAMPLE OF AIR QUALITY INITIATIVES



AIR QUALITY HANDBOOK

North Central Texas Council of Governments

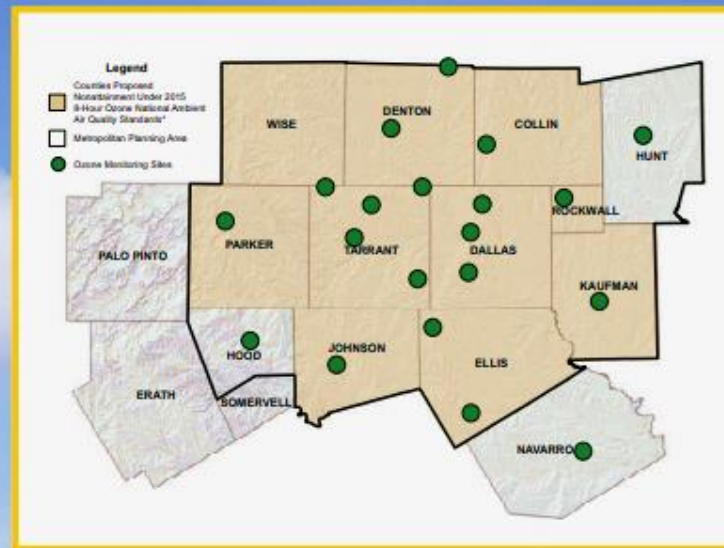
Air Quality

Handbook

Spring 2018

This Air Quality Handbook presents the current status of regional air quality and a summary of the work undertaken by the North Central Texas Council of Governments as the metropolitan planning organization and its partners to reduce air pollution and help the region meet federal air quality standards.

Exhibit 1: North Central Texas Nonattainment* Area and Ozone Monitoring Sites



CITY OF IRVING ENGAGEMENT

- ✓ **Clean Fleet Policy**
- ✓ **Dallas-Fort Worth Clean Cities**
- ✓ **DART Public Transportation**
- ✓ **Electric Vehicle Infrastructure**
- ✓ **Freeway Incident Mgmt Training**
- ✓ **Regional Emissions Enforcement Program**
- ✓ **Truck Lane Restrictions**

Key Opportunities:

- 1) Promote and Apply for Financial Incentives**
- 2) Consider Policy/Incentive Approaches to Influence Citizen/Business Activities**
- 3) Engage in Outreach/Education Efforts**

ENGAGEMENT OPPORTUNITIES

Clean Fleet Funding

- **2018 Call For Projects**
- **Volkswagen Mitigation Plan**
- **Electric Vehicle Incentives**

Air North Texas (Marketing)

- **AirCheckTexas**
- **Car Care Clinics**
- **Electric Vehicles North Texas**
- **Regional Smoking Vehicle Program**
- **Try Parking It**

Green Parking Program

PACE Financing

RTC Mobility Plan Policy Bundle

- **Clean Construction**
- **Idling Restrictions**

SolSmart/Solar-Ready

FOR MORE INFORMATION

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