

LOCALLY ENFORCED IDLING RESTRICTIONS

**UT Southwestern
Green Champion Meeting**

Nov. 19, 2013

**Amanda Brimmer, Principal Air Quality Planner
North Central Texas Council of Governments**

NATIONAL AMBIENT AIR QUALITY STANDARDS

Criteria Pollutants

2

Carbon Monoxide (CO)

Lead (Pb)

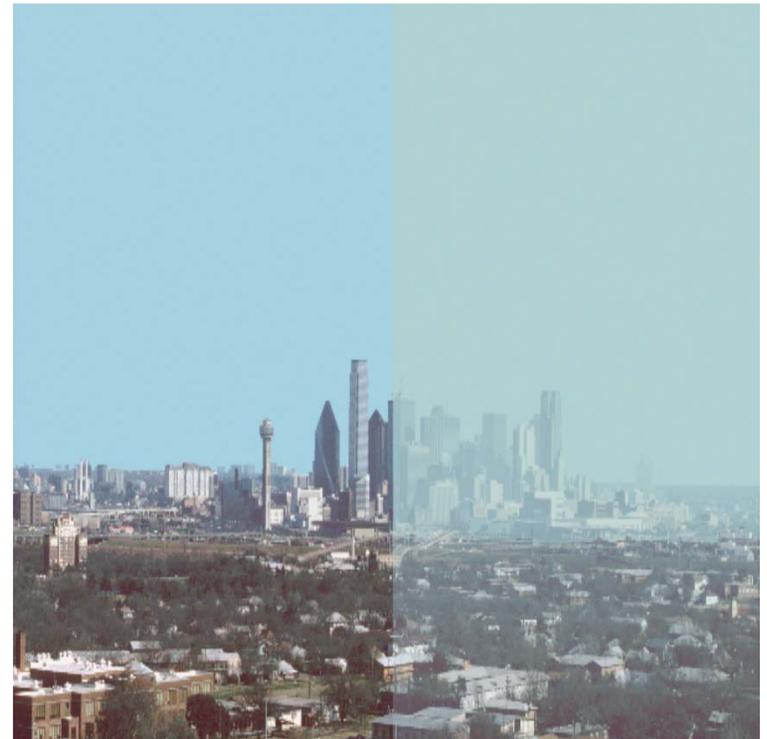
Nitrogen Oxides (NO_x)

Ozone (O₃) ←

Particulate Matter (PM₁₀ & PM_{2.5})

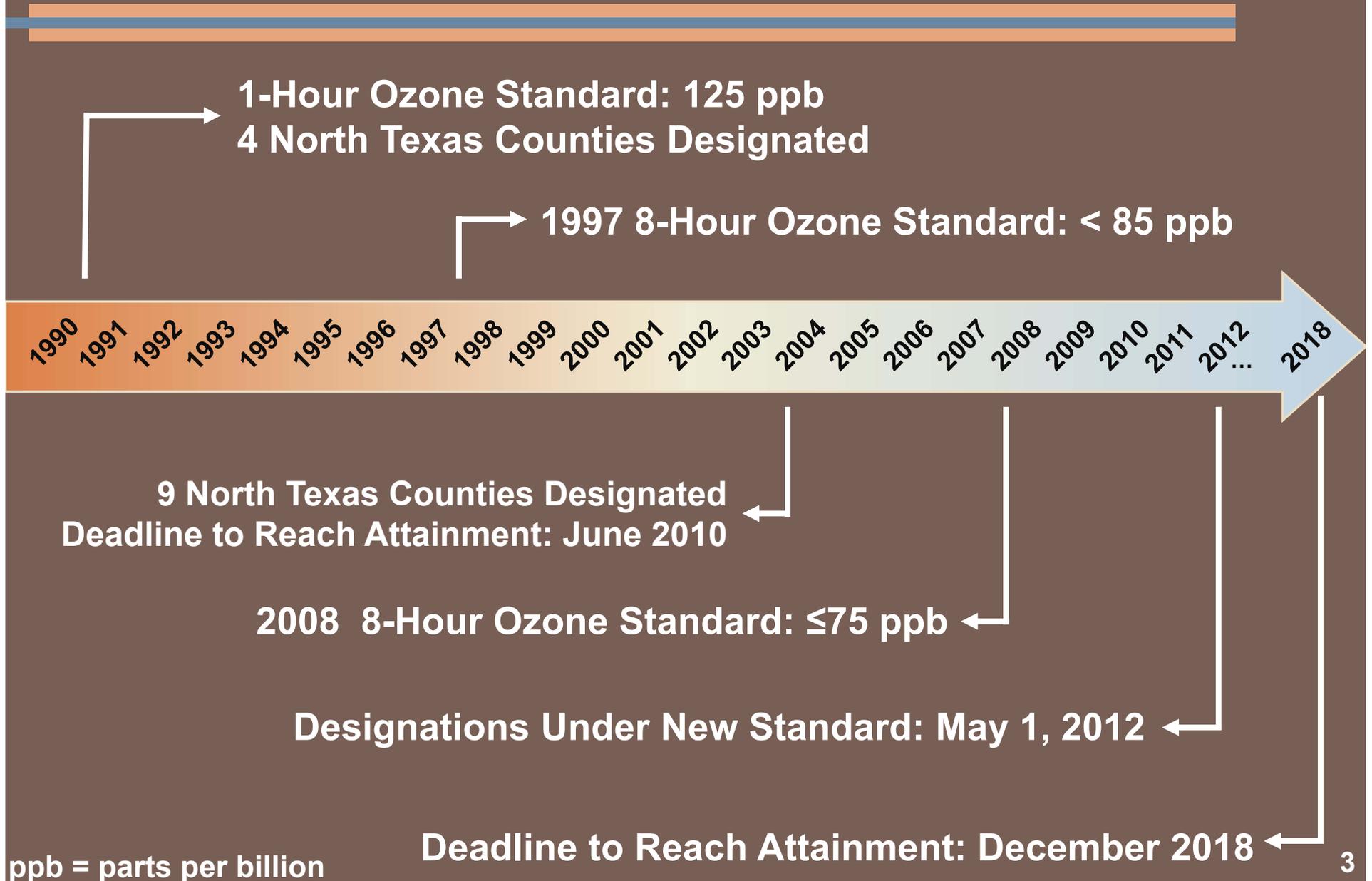
Sulfur Dioxide (SO₂)

Future? CO₂, NO₂, etc.



FEDERAL OZONE STANDARDS

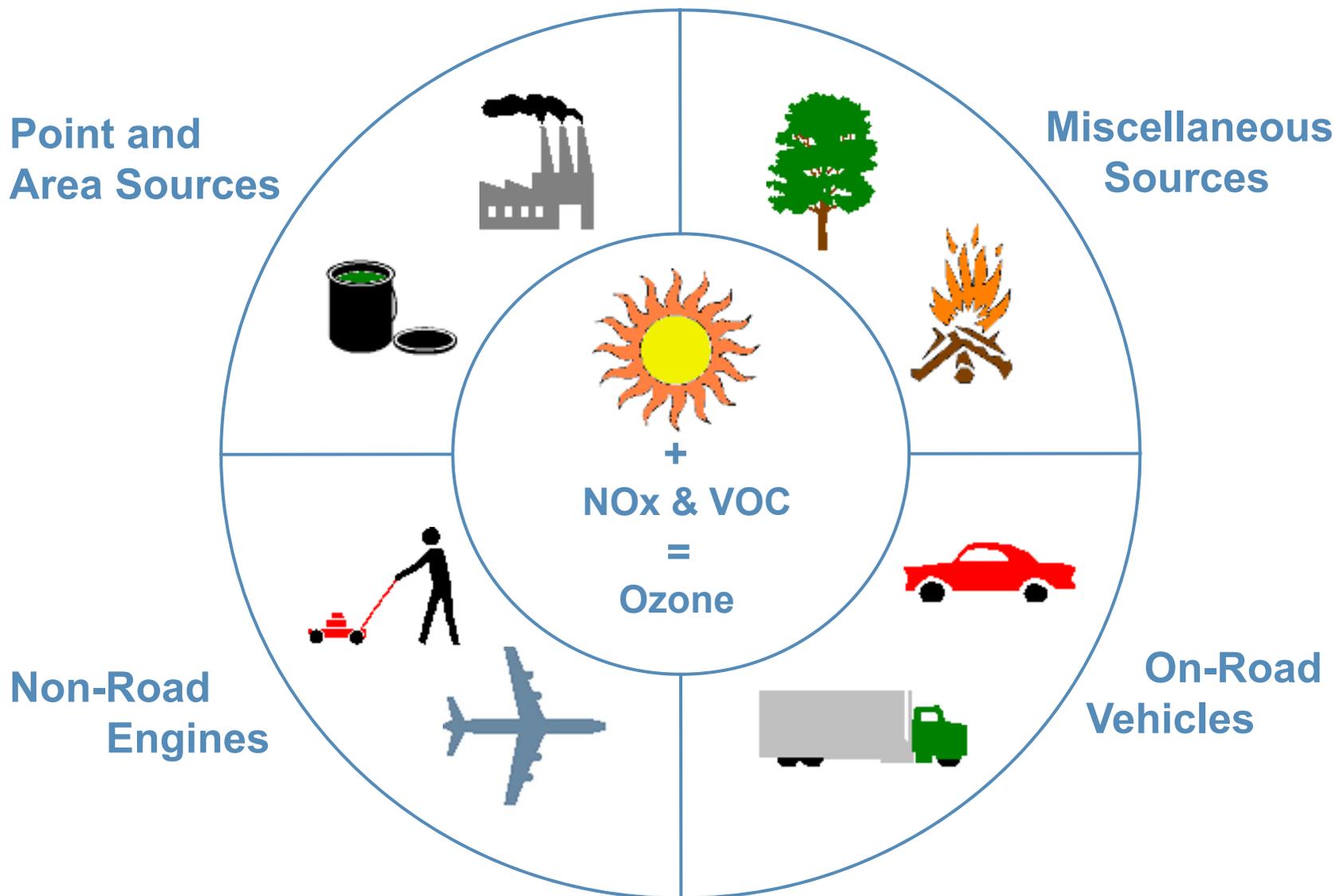
DFW Nonattainment Area Timeline



STATE OF AIR QUALITY IN NORTH TEXAS

4

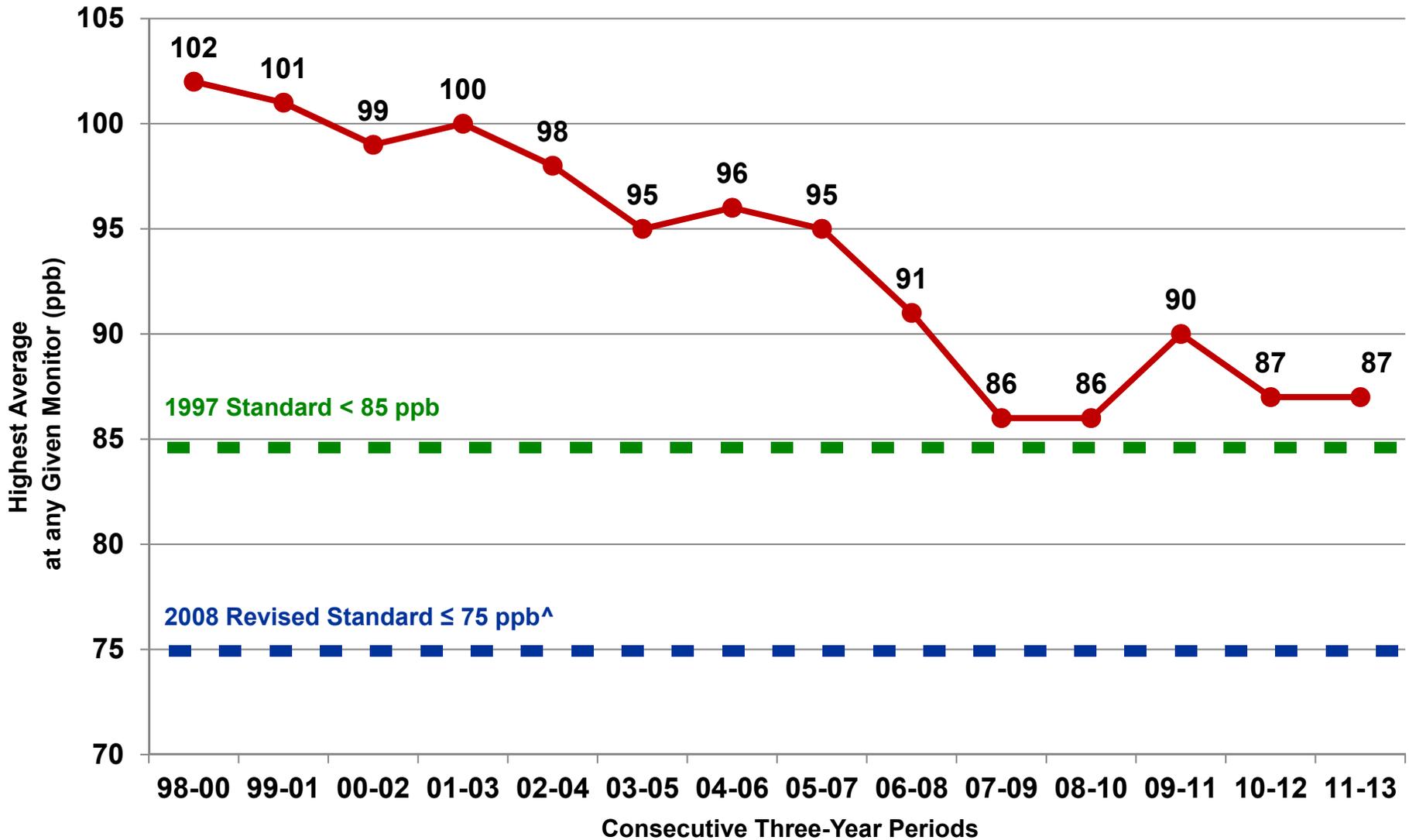
Ozone Formation



Nitrogen Oxides (NO_x), Volatile Organic Compounds (VOC)

2013 OZONE SEASON

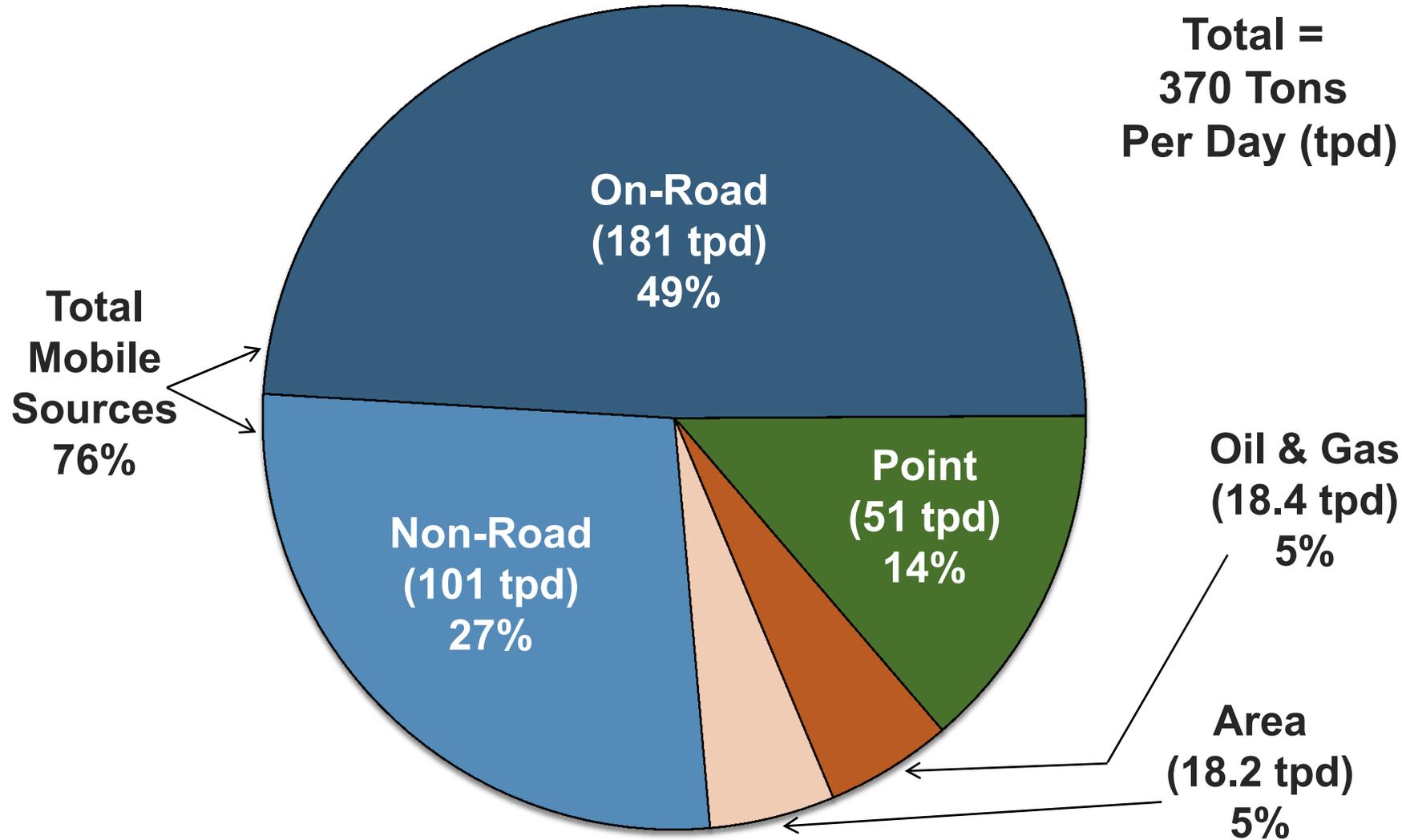
8-Hour Ozone Historical Trends



^Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is equal to or less than 75 parts per billion (ppb).

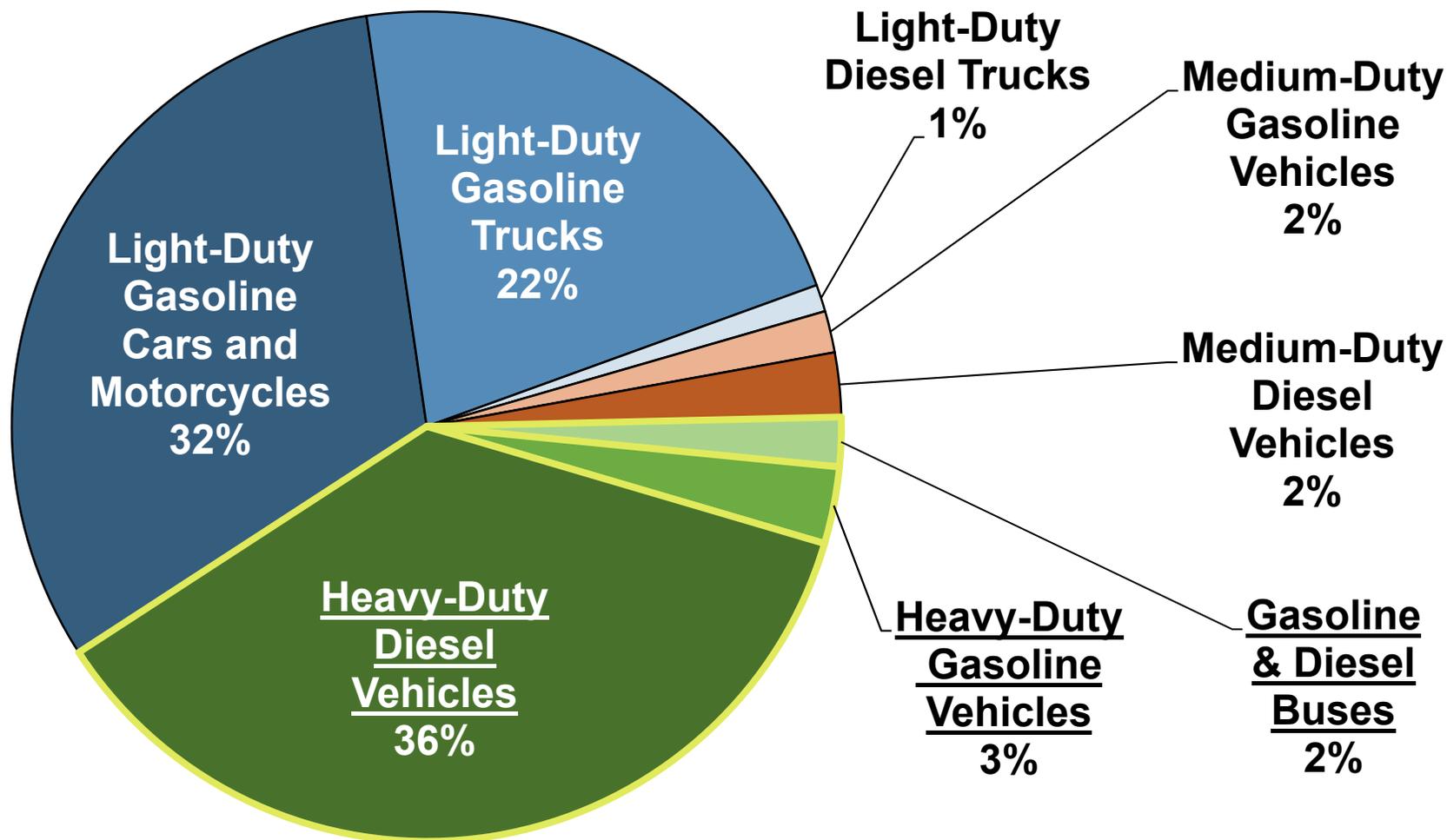
DFW NONATTAINMENT AREA

2012 NO_x Emissions Inventory



DFW NONATTAINMENT AREA

2012 On-Road NO_x Emissions Inventory

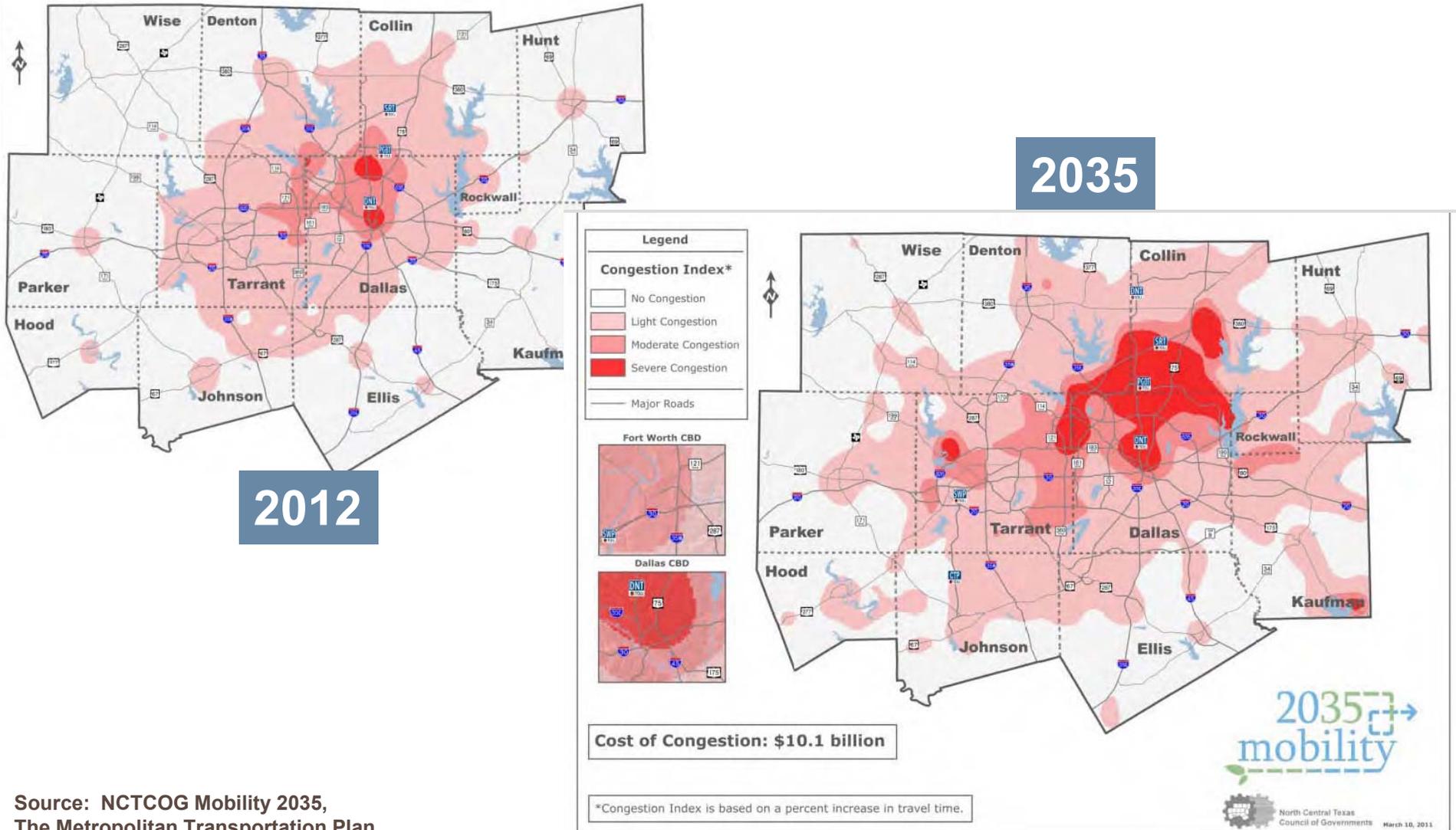


Light-Duty Vehicles ≤ 8,500 lbs gross vehicle weight rating (GVWR)
 Medium-Duty Vehicles = 8,501 – 14,000 lbs GVWR
 Heavy-Duty Vehicles ≥ 14,001 lbs GVWR

LEVELS OF TRAFFIC CONGESTION

North Central Texas

8



Source: NCTCOG Mobility 2035,
The Metropolitan Transportation Plan

*Congestion Index is based on a percent increase in travel time.

VEHICLE IDLING

Why be Concerned?

Health

Exhaust Inhalation
Impacts of Poor Air Quality



Environment

200,000 Tons NO_x Each Year
11 Million Tons of Carbon Dioxide (CO₂) Each Year
Elevated Noise Levels

Energy Security

650,000 18-Wheelers → 685 Million Gallons of Fuel
6.7% of Annual Fuel Use for Medium-Duty Vehicles

Money

Zero Miles per Gallon; up to \$6,400/Year Spent on Fuel*
Decrease in Engine Life \ Increased Maintenance Costs

*Assumes \$3.49 per gallon Diesel (11/13); 1,830 hours per year idling
Source: Environmental Protection Agency (EPA), Department of Energy (DOE)

LOCALLY ENFORCED IDLING RESTRICTIONS

Overview

10

Restriction

No gasoline or diesel vehicle over 14,000 lbs. gross vehicle weight rating (GVWR) can idle for more than 5 minutes when vehicle is not in motion; in effect year round

Exemptions



Vehicle Type	Operations	Location
With a Sleeper Berth and During a Government Mandated Rest Period	Power Source for Mechanical Operations	Not Within Two (2) Miles of a Truck Stop Offering External Heating/Air Conditioning
Airport Ground Support Equipment		
Military, Emergency, and Law Enforcement	Maintenance/ Diagnostic Purposes	
Armored Vehicles	Windshield Defrosting	
Buses (30 Minute Maximum)	Traffic Congestion	
Certified Clean Idle Engines (2008+)		

LOCALLY ENFORCED IDLING RESTRICTIONS

Applicability

11

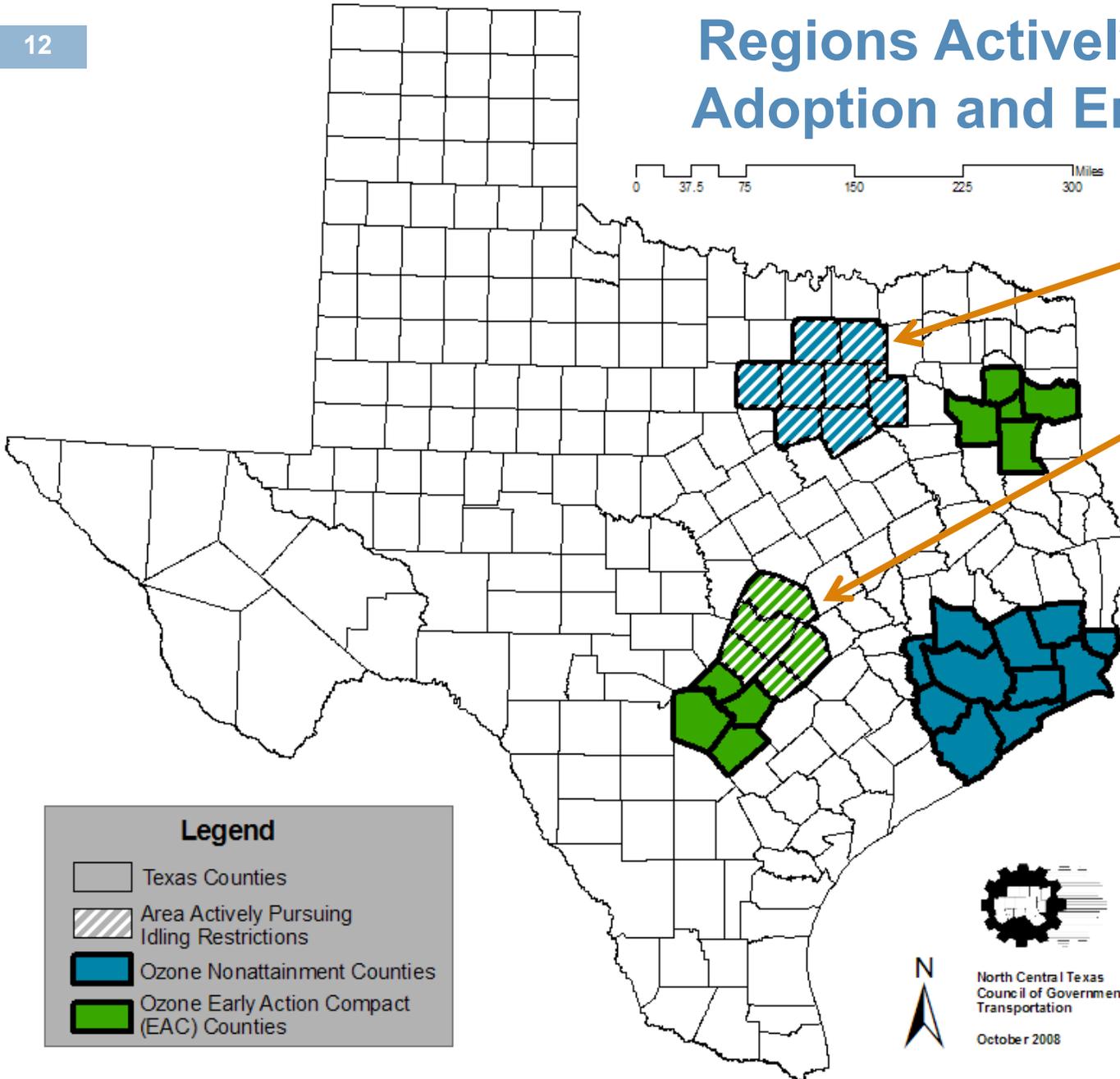
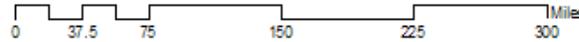
Types of Vehicles >14,000 lbs GVWR Include:

Beverage Trucks	Garbage Trucks	Stake Trucks
Bucket Trucks	Heavy-Duty Utility Trucks	Step Vans
Delivery Trucks	Home Fuel Trucks	Tanker Trucks
Dump Trucks	Inner-City Tour Buses	Tow Trucks
Flat-Bed Trucks	Large Motor Homes	Tractor-Trailer Rigs
Fuel Trucks	Rack Trucks	Transit Buses
Furniture Trucks	School Buses	Utility Trucks
	Service Body Trucks	



TEXAS IDLING RESTRICTIONS RULE

Regions Actively Pursuing Adoption and Enforcement



DFW Area

Austin Area (Adoptees*)

- City of Austin
- City of Bastrop
- City of Elgin
- City of Georgetown
- City of Hutto
- City of Lockhart
- City of Luling
- City of Round Rock
- City of San Marcos
- Bastrop County
- Caldwell County
- Hays County
- Travis County
- Williamson County

Legend

- Texas Counties
- Area Actively Pursuing Idling Restrictions
- Ozone Nonattainment Counties
- Ozone Early Action Compact (EAC) Counties

N
North Central Texas
Council of Governments
Transportation
October 2008

LOCALLY ENFORCED IDLING RESTRICTIONS

13

North Central Texas Area

Cities

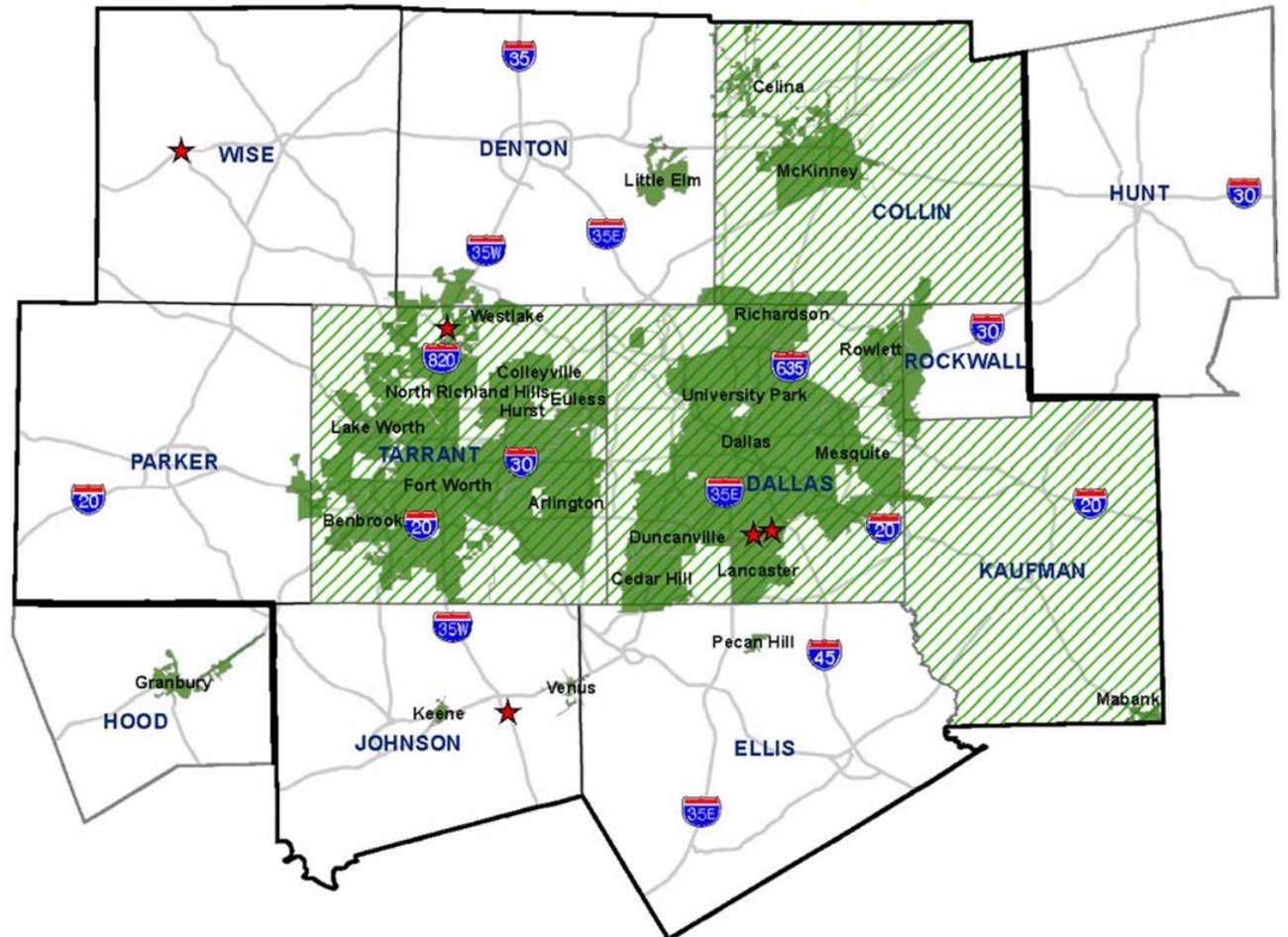
- | | |
|-------------|----------------------|
| Arlington | Keene |
| Benbrook | Lake Worth |
| Cedar Hill | Lancaster |
| Celina | Mabank |
| Colleyville | Mesquite |
| Dallas | North Richland Hills |
| Duncanville | Pecan Hill |
| Eules | Richardson |
| Fort Worth | Rowlett |
| Granbury | University Park |
| Hurst | |

Towns

- | | |
|------------|----------|
| Little Elm | Westlake |
|------------|----------|

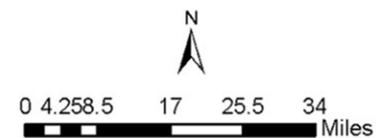
Counties

- | | |
|--------|---------|
| Collin | Kaufman |
| Dallas | Tarrant |



Legend

- Ozone Nonattainment Area
- Cities/Towns with Idling Restrictions
- Counties with Idling Restrictions
- Existing On-Site Infrastructure (Public)



November 2013

LOCAL GOVERNMENT IMPLEMENTATION

Initiation and Outreach

14

Initial Steps

- Adopt State Idling Limitation Rule
- Sign North Texas Memorandum of Agreement (MOA) with the Texas Commission on Environmental Quality (TCEQ)
- Identify Personnel for Education and Enforcement Efforts

Education and Outreach

- Promote Awareness of Restrictions and Idle-Reduction Technology Options

Available Outreach Items:

- Local Government Guide
- Anti-Idling Posters and Street Signs
- Driver Education Brochures
- Idling Complaint Hotline and Website

1-877-NTX-IDLE, www.EngineOffNorthTexas.org



LOCAL GOVERNMENT IMPLEMENTATION

Enforcement

15

Effective September 2011 - HB1906 Made the State Idling Rule a Class C Misdemeanor Offense

Local Government Action

- **Identify Enforcement Personnel**
- **Determine Procedures to Spot and Cite Violators**
- **Log Citations for Requisite Reporting**

Resources

- **Provide NCTCOG Emissions Database (NED) Training; Includes Discussion on Idling Enforcement Procedures (Upon Request)**
- **Facilitate Discussions Between Agencies on Potential Sources of Funding**

NCTCOG EMISSIONS DATABASE

NED

16

- Contains State Inspection Records for all 17 Emissions Testing Counties, Beginning May 1, 2002
- Contains Over 70 Million Records Updated Weekly
- Internet Based, Password Protected, and Available to Law Enforcement Agencies 24/7 with Over 7,700 Users

The image shows a sample of a Texas Vehicle Inspection Report. The report is titled "TEXAS VEHICLE INSPECTION REPORT" and includes the NCTCOG Emissions Database logo. It contains the following sections:

- Vehicle Identification:** Start Test Date/Time (17-FEB-2010 01:23 PM), End Test Date/Time (17-FEB-2010 01:26 PM), Emission Test Type (A: TS: (2-Speed Idle)), Inspection Type (A) Emission & Safety Test, Software Version (0926), Test Type/Safety (Initial Emissions Test), License Plate Number (10413A04), Vehicle System Number (FTK167), Vehicle Identification Number (JTRJ847E45019366), County Where Tested (Dallas), Vehicle Make (LEXS), Vehicle Model (GX300), Vehicle Year (1995), Engine Size (Cubic Inches) (3000), Transmission/GVW/GVW Type (Automatic / 4000 / Light), Exhaust Type (25024 / Gas), Fuel Injection (No), and Vehicle 80 inches Wide (Yes, AWD-4X).
- Station Identification:** Station Name (BONNIE VIEW MOBIL), Station Number (107146), Station Address (2919 E. ILLINOIS), Station City (TX), Station State (TX), Station Zip (75216), Inspector First Name (RASHARD), Inspector Last Name (HENDERSON), Insurance Expiration Date (11/15/10), Form VI 304 Issued (Green Sheet), and Form VI 30A Number (154).
- Inspection & Repair Fees:** Safety Inspection Fee (\$12.75), Emission Inspection Fee (\$27.00), Repair Costs at Station (\$27.00), REPAIR Repair Costs (\$0.00), Non REPAIR Repair Costs (\$0.00), Soft Performed Repair Costs (\$0.00), System Inspected (Prior to test Pre-Tuning done), Overall Inspection Costs (Overall Repair Costs).
- Weather:** Relative Humidity (5015 Humidity), Wind Speed (2525 Humidity), Ambient Dry Bulb (2525 Humidity), and Barometric Pressure (2525 Humidity).
- Test Equipment:** Analyzer Number (Dyno Set Horsepower 5015), Dyno Set Horsepower (2525), Acceleration Violations during 5015 (0), and Acceleration Violations during 2525 (0).
- Low Speed Emission Results (15mph):** Standard (20), Current Reading (0), Result (PASS), Gas Cap Missing (No), Gas Cap Tightening (1), Gas Cap Testable (12.3), 2nd Gas Cap Testable (3.8), Result (PASS), Safety Items (Pass), Emissions (Pass).
- OVERALL RESULT:** Certificate Number Issued: M02825238, Waiver Number: M02825238, Records last updated: 02/21/2010.
- DISCLAIMER:** The North Central Texas Council of Governments (NCTCOG) maintains this Emissions Data Web site to enhance access to Texas Emissions Data information. This site is continually under development and therefore subject to change without notice. While we endeavor to provide timely and accurate information, we make no guarantee. The North Central Texas Council of Governments makes no warranty, express or implied, including accuracy of fitness for a particular purpose. Use of the information is the sole responsibility of the user. The material on this site is compiled from data provided by The Texas Commission on Environmental Quality (TCEQ) from The Texas Information Management System (TIMS) database and is not for public use or dissemination. We do not control or guarantee the accuracy, relevance, timeliness or completeness of any outside information.

REGIONAL EMISSIONS ENFORCEMENT PROGRAM

17

Overview

Reduce Number of Fictitious/Counterfeit Inspection Certificates by:

- Conducting Covert Operations on State Inspection Stations
- Identifying Inspectors Performing Improper Inspections
- Prosecuting Offenders for Counterfeit Inspection Certificates
- Utilizing NCTCOG's Emissions Database (NED)

Enforce Truck Lane Restrictions

Support Anti-Idling Restrictions

Enforce Smoking Vehicle Statute

Train Local Law Enforcement Officers

Encourage Collaboration Between
Counties to Increase Enforcement Efforts



OTHER WAYS TO REDUCE IDLING

Fleets – Public & Private

18

Retrain/Educate Drivers

Technology to Monitor Driver Behavior

Adopt a Fleet Anti-Idling Policy

Expectations

Time Limits

Accountability

Recognition

www.nctcog.org/FleetPolicy

Invest in Technologies

Idle-Reduction Devices

Hybrid and Electric Vehicles



LOCALLY ENFORCED IDLING RESTRICTIONS

19

Ways To Engage Drivers

Education

Brochures and Driver Training

Pledges

Ask Drivers to Take a Pledge to Minimize Idling

Incentives

Since Eliminating Unnecessary Fuel Consumption Saves Money, this Savings Can Partially be used to Incentivize Drivers to Reducing Idling

EXAMPLE

Monthly Incentive	Idling Threshold*	Fuel Savings Per Month @ \$3.50 - \$4.00/Gal
\$10 gas/gift card	< 100 hours per month	\$175-\$200
\$20 gas/gift card	< 50 hours per month	\$350-\$400
\$50 gas/gift card	No idling per month	\$525-\$600

*Assumes baseline idling of 150 hours per month for a heavy-duty truck

TECHNOLOGY SOLUTIONS

On-Board and On-Site

20

Medium-Duty Vehicles

Power Take-Off Capabilities:
Battery/Auxiliary Power Systems

Heat: Air Heaters/Coolant
Heaters/Energy Recovery Systems

Heavy-Duty Vehicles

EPA-Verified Technologies for
Class 8 Long-Haul Trucks

Remote Plug-In Capabilities

School Buses

EPA-Verified Technologies

Hybrid and Electric Vehicles



Photo courtesy of Next Generation Power



LOCALLY ENFORCED IDLING RESTRICTIONS

Funding Opportunities

21



NCTCOG Funding Programs

On-Site and On-Board Idle Reduction Projects,
Call for Projects Open Periodically Throughout Year

www.nctcog.org/AQFunding



Texas Emissions Reduction Plan (TERP)

On-Site and On-Board Idle-Reduction Infrastructure

www.TERPGrants.org



SmartWay Transport Partnership

Innovative Financing for Fuel-Efficient Technologies

www.epa.gov/SmartWay

LOCALLY ENFORCED IDLING RESTRICTIONS

Future Idling Initiatives

22

Supported by Regional Transportation Council (RTC)

**Reinstate Prohibition of Idling near Sensitive Areas
(Near Schools, Hospitals, and in Neighborhoods)**

Prohibit Idling at Schools for Both Buses and Cars

Remove 30-Minute Bus Exemption for Idling in School Zones

Include Lighter-Duty Vehicles of 6,000 GVWR and Greater

Contact Information

Amanda Brimmer, E.I.T.

Principal Air Quality Planner

abrimmer@nctcog.org

(817) 608-2354

Natalie Gusack

Air Quality Planner

ngusack@nctcog.org

(817) 695-9287

Shannon Stevenson

Program Manager

sstevenson@nctcog.org

(817) 608-2304

www.EngineOffNorthTexas.org



North Central Texas Council of Governments

P.O. Box 5888

Arlington, TX 76005-5888