

LOCALLY ENFORCED MOTOR VEHICLE IDLING RESTRICTIONS

**Texas Institute of Transportation Engineers (TexITE)
Dallas Section**

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LOCALLY ENFORCED IDLING RESTRICTIONS

Overview

- **Air Quality Overview**
- **Texas Idling Rule**
- **Benefits of Reducing Idling**
- **Idling Restrictions In North Central Texas**
- **Idling Restrictions Across the State/County**
- **Technology & Resources**

Air Quality Overview

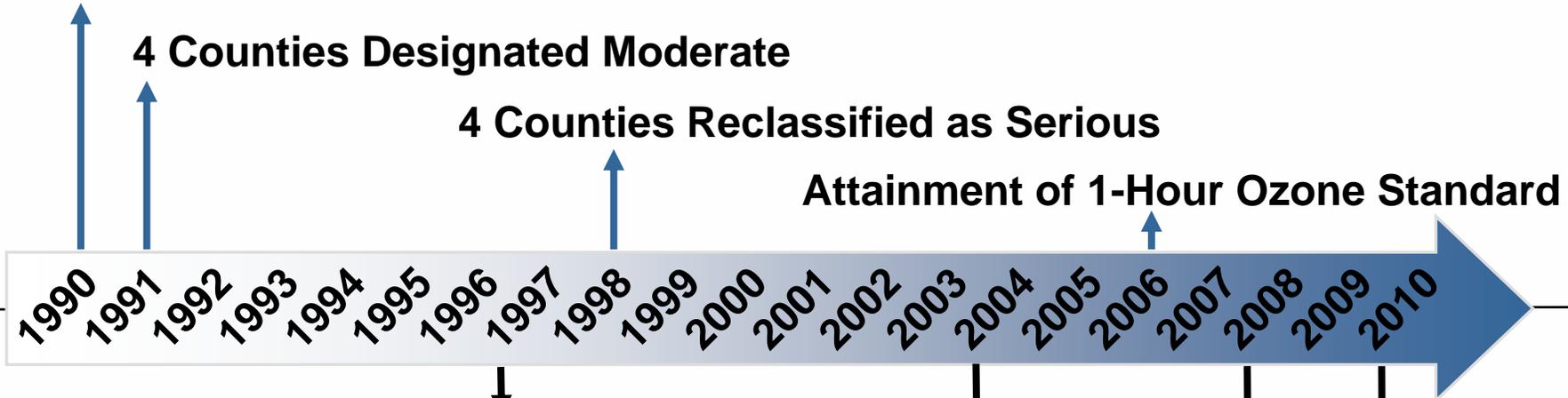
FEDERAL OZONE STANDARDS

North Central Texas Nonattainment Status

1-Hour Ozone Standard

Clean Air Act Amendments Of 1990

1-Hour Ozone Standard



4 Counties Designated Moderate

4 Counties Reclassified as Serious

Attainment of 1-Hour Ozone Standard

8-Hour Ozone Standard

9 Counties Designated Moderate

8-Hour Ozone Standard Revised

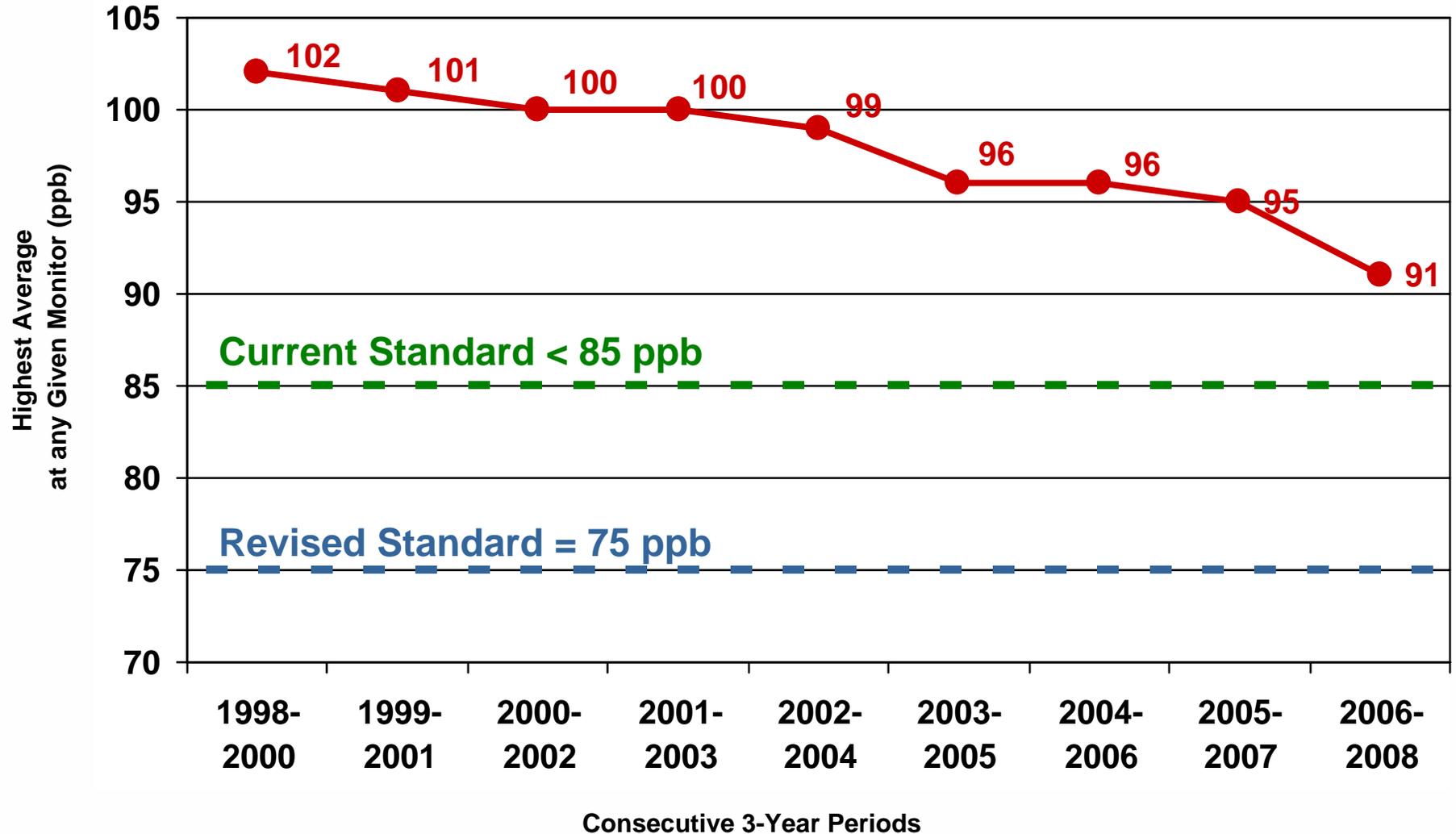
1997 8-Hour Ozone Standard Attainment Date: June 15, 2010

2008 8-Hour Ozone Standard Designations: March 12, 2010

8-Hour Ozone Standard

8-HOUR OZONE HISTORICAL TRENDS*

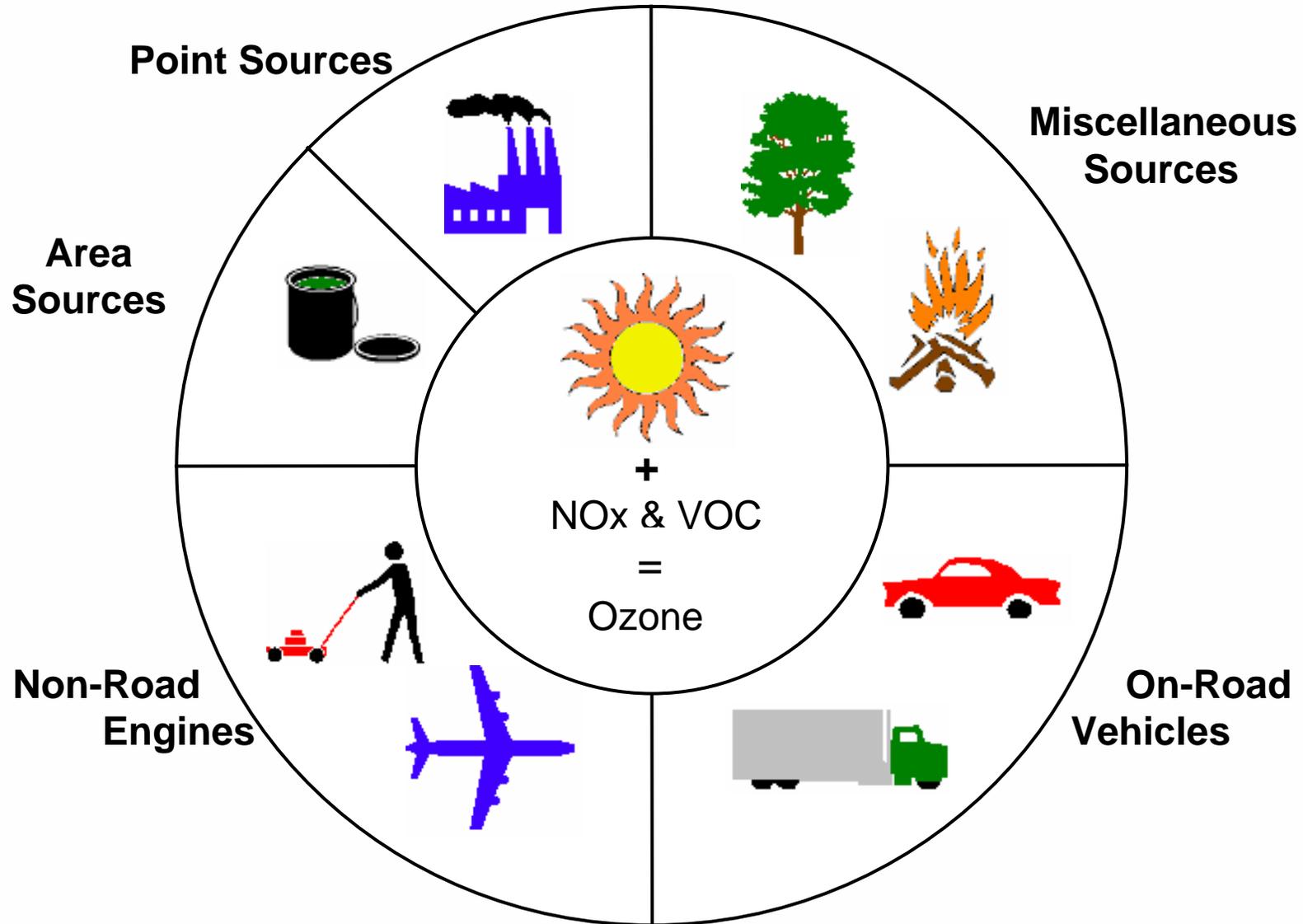
DFW Nonattainment Area



* Current 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 less than 85 parts per billion (ppb).

STATE OF AIR QUALITY IN NORTH TEXAS

Ozone Formation

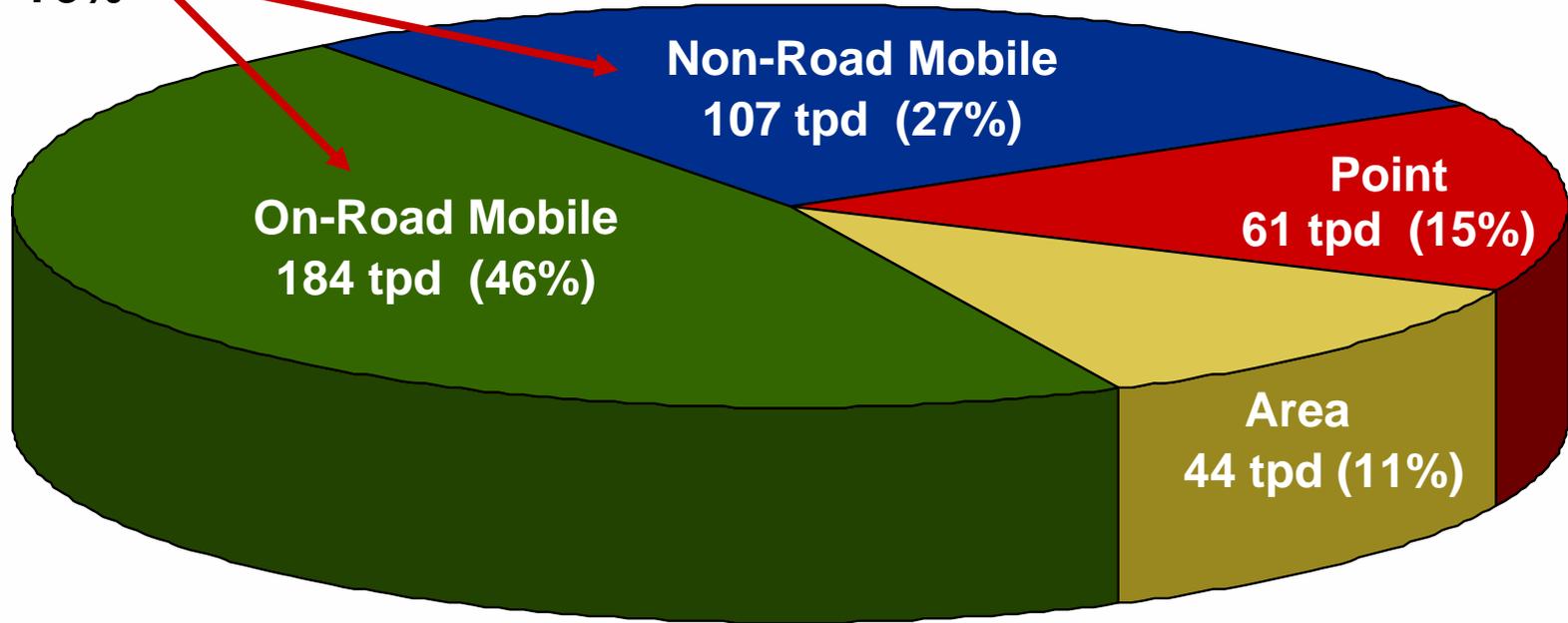


DFW NONATTAINMENT AREA

2009 Nitrogen Oxide (NO_x) Emission Inventory

Source Category Estimates

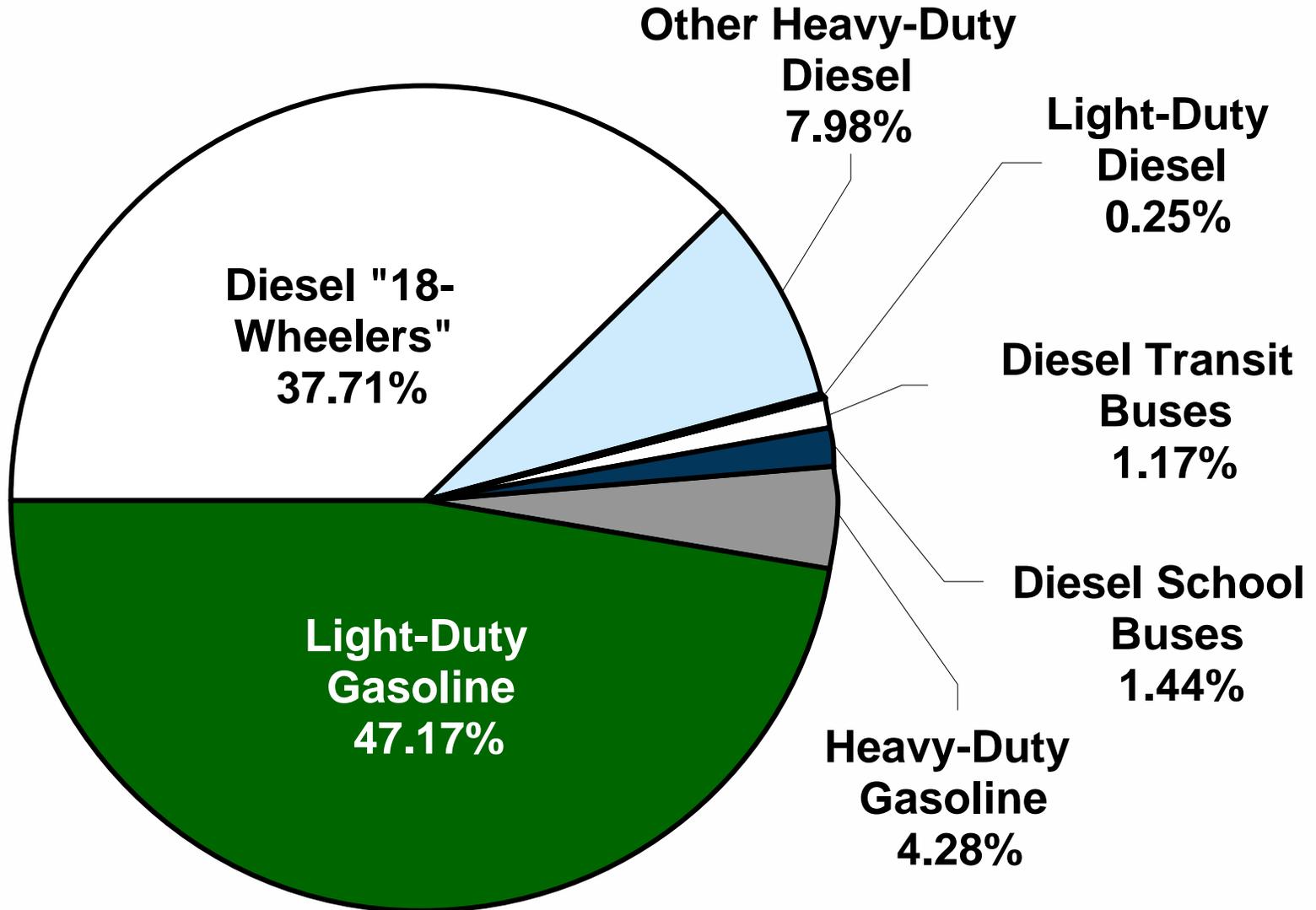
Total Mobile Sources
73%



Total NO_x = 396 Tons Per Day (tpd)

DFW NONATTAINMENT AREA

2009 On-Road NO_x Emissions Inventory



8-HOUR OZONE STATE IMPLEMENTATION PLAN

DFW Nonattainment Area

NORTH CENTRAL TEXAS STATE IMPLEMENTATION PLAN VOLUNTARY MOBILE EMISSION REDUCTION PROGRAM (VMEP) EMISSION BENEFITS BY PROGRAM TYPE

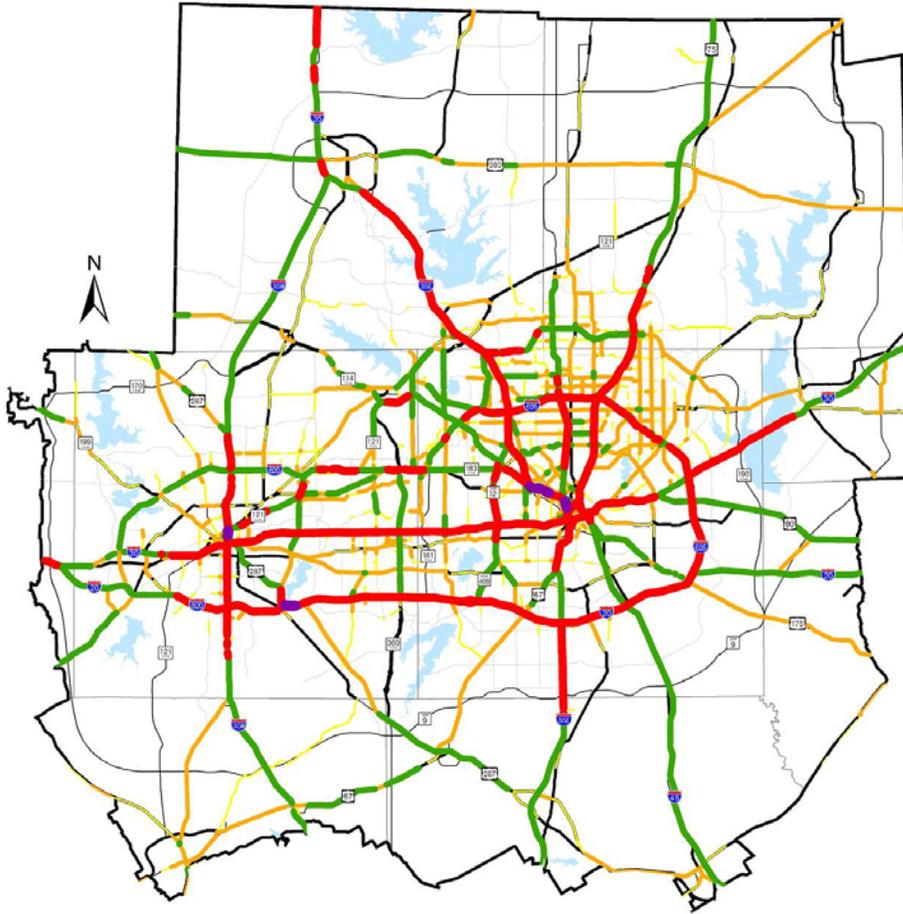
PROGRAM TYPE	2009 NO _x BENEFITS (tons per day)		2009 VOC BENEFITS (tons per day)	
	Modeled	Post-Processed	Modeled	Post-Processed
Clean Vehicle Program	0.00	0.24	0.00	0.05
Employee Trip Reduction	0.43	0.00	0.28	0.00
Locally Enforced Idling Restriction	0.00	0.62	0.00	0.02
Diesel Freight Idling Reduction Program	0.00	0.33	0.00	0.01
SmartWay Transport Demonstration Project	0.00	0.00	0.00	0.00
Public Agency Policy for Construction Equipment	0.00	0.06	0.00	0.01
Aviation Efficiencies	0.00	0.95	0.00	0.24
TOTAL BENEFITS (tons per day)	0.43	2.20	0.28	0.33

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

REGIONAL TRUCK VOLUMES

DFW Nonattainment Area

2005 Truck Volumes



2030 Truck Volumes



Texas Idling Rule

LOCALLY ENFORCED IDLING RESTRICTIONS

TCEQ Rule

Texas Administrative Code (TAC)

TITLE 30

Part 1

Chapter 114

Subchapter J

Division 2

Locally Enforced Motor Vehicle Idling Limitations

§ 114.510-114.517

LOCALLY ENFORCED IDLING RESTRICTIONS

Control Requirements (TAC Title 30 Ch 114)

No Gasoline or Diesel Powered Motor Vehicle Over 14,000 Pounds (GVWR) May Idle the Main Engine for More Than 5 Minutes When the Vehicle is Not in Motion

Applicable From April 1 Through October 31

No Driver Using Vehicle's Sleeper Berth May Idle In:

A Residential Neighborhood

A School Zone

Within 1,000 Feet of a Hospital or School

Within a 2-Mile Radius of a Facility Offering External Heating and Air Conditioning

LOCALLY ENFORCED IDLING RESTRICTIONS

Exemptions (TAC Title 30)

Vehicle Type

Vehicles With Sleeper Berth (Before Sept. 2009 Only)

Military, Emergency or Law Enforcement Vehicles

Airport Ground Support Equipment

**The Owner of a Vehicle Rented or Leased to a Person
Not Employed By Owner**

Operations

Idling Due to Traffic Congestion

**Motors Run as Power Source for Mechanical
Operations**

**Idling During Operation for Maintenance/Diagnostic
Purposes**

Operation of Engine Solely to Defrost a Windshield

LOCALLY ENFORCED IDLING RESTRICTIONS

Exemptions Continued (TAC Title 30)

Air Conditioning and Heating Provision

**For Passenger Comfort and Safety in Vehicles
Intended for Commercial/Public Passenger
Transportation or Passenger Transit Operations
(30 Minutes Maximum)**

**For Employee Health or Safety While Employee is
Using Vehicle to Perform an Essential Job
Function Related to Roadway Construction or
Maintenance**

**During Use of Sleeper Berth for a Government-
Mandated Rest Period
(Subsection Expires September 1, 2009)**

Benefits of Reducing Idling

LOCALLY ENFORCED IDLING RESTRICTIONS

Why Is It Important?

Idling Emissions Contribute to Air Pollution, Which Can Cause Adverse Health Effects

In Addition, the U.S. EPA Estimates that Excess Idling is Responsible for:

- **Over 1 Billion Gallons of Diesel Fuel Consumed Annually**
- **11 Million Tons of Carbon Dioxide, 200,000 Tons of Nitrogen Oxides, and 5,000 Tons of Particulate Matter Emitted Annually**
- **Increased Engine Maintenance Costs**
- **20% Decrease in Engine Life**
- **Elevated Noise Levels**

LOCALLY ENFORCED IDLING RESTRICTIONS

What is Diesel Exhaust?

Gaseous Components of Diesel Exhaust:

Carbon Dioxide (CO₂)

Oxygen (O₂)

Nitrogen (N₂)

Water Vapor (H₂O)

Carbon Monoxide (CO)

Nitrogen Compounds (NO_x)

Sulfur Compounds (SO_x)

Low-Molecular-Weight Hydrocarbons (HC)

Particulate Matter (PM)

1 Gallon Diesel Burned = 22.2 lbs CO₂ Emitted

LOCALLY ENFORCED IDLING RESTRICTIONS

What Makes Diesel Exhaust So Dangerous?

Pollutants in diesel lead to the formation of ozone which contributes to smog.

Prolonged exposure to ozone can lead to adverse health effects including:

Irritation of the Airways

Reduced Lung Function

Coughing

Irritation of the Throat and Chest

Inability to Breathe as Vigorously as Normal

Diesel exhaust also contains particulate matter and many air toxins which are harmful to human health.

LOCALLY ENFORCED IDLING RESTRICTIONS

Savings \$\$\$

Unnecessary Idling Wastes Money and Resources

EXAMPLE)

**Idling = 7 hours/day * 5 days/week * 50 weeks/year
= 1,750 hours idling/year**

**Idling = 1 gallon diesel/hour * \$3.00-4.00/gallon diesel
= \$5,250-\$7,000/year**

Engine Manufacturers, Including Cummins, State that Excessive Idling Should be Avoided When Possible as it Results in:

- **Reduced Fuel Economy**
- **Increased Engine Wear**
- **Excessive Carbon Buildup on Pistons, Piston Rings, Injector Tips, Valves, Etc.**
- **Increased Frequency of Maintenance and Repairs such as Oil Changes and Replacement of Belts/Hoses**

Idling Restrictions in North Central Texas

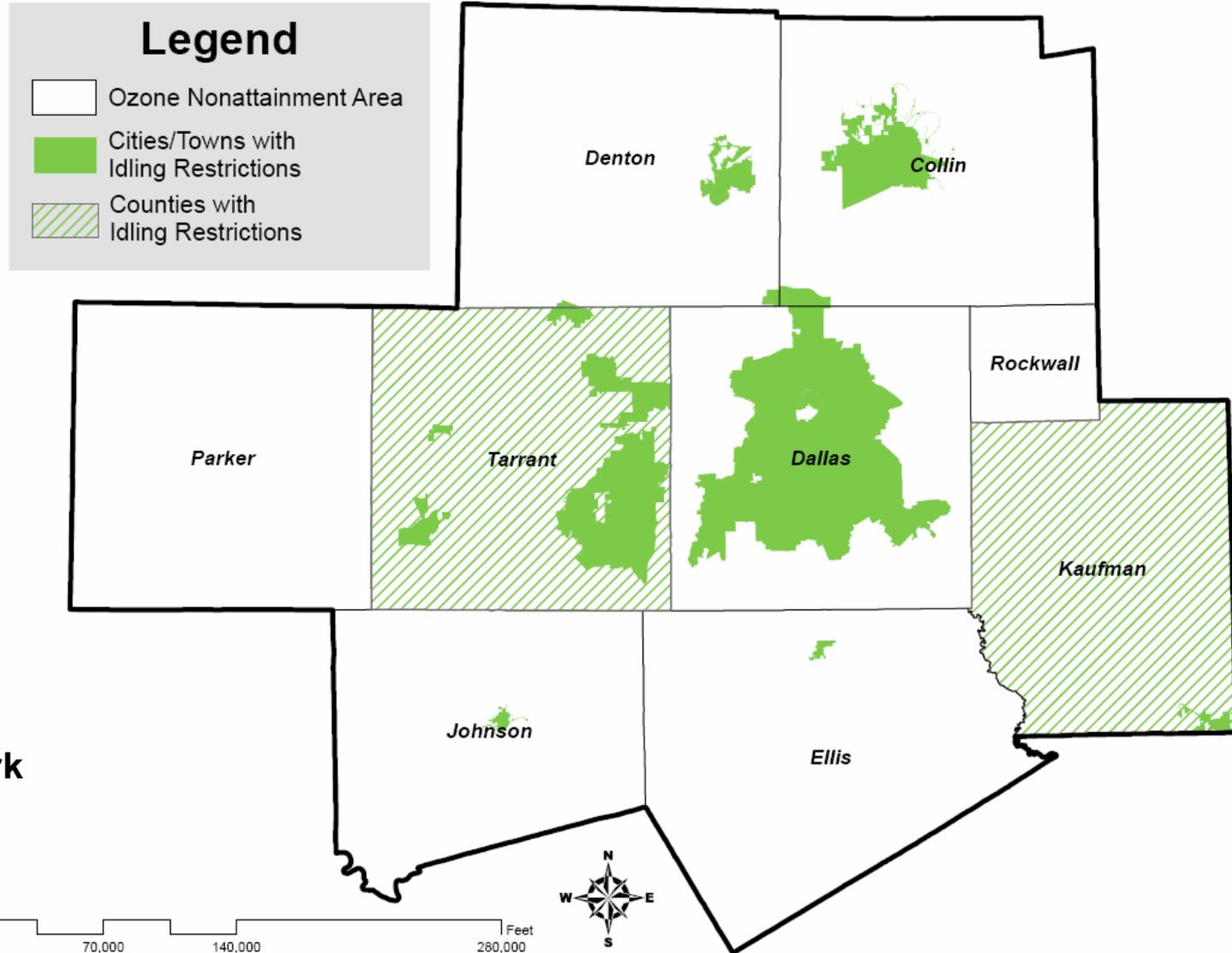
LOCALLY ENFORCED IDLING RESTRICTIONS

Local Governments' Role

Stage 1: Initiation	<ul style="list-style-type: none">• Adopt TCEQ Idling Limitation Rule• Enter into North Texas Memorandum of Agreement (MOA) with TCEQ
Stage 2: Education	<ul style="list-style-type: none">• Order and Install Signs in Areas Traditionally Known for Excessive Idling• Promote Awareness of Idling Restrictions and Available Options
Stage 3: Enforcement	<ul style="list-style-type: none">• Identify Enforcement Personnel• Determine Procedures to Spot and Cite Violators• Log Citations for Reporting

LOCALLY ENFORCED IDLING RESTRICTIONS

North Central Texas Area



* Not yet finalized

LOCALLY ENFORCED IDLING RESTRICTIONS

Available Resources

NCTCOG has Developed for Regional Use:



- Anti-Idling Signs
- Education Brochures
- Local Government Guide
- Complaint Hotline and Web site to Report Idling Vehicles

1-877-NTX-IDLE (689-4353)

www.EngineOffNorthTexas.org

LOCALLY ENFORCED IDLING RESTRICTIONS

Enforcement & Penalties

Enforcement:

Enforcement Personnel:

Constable's Office

Marshal's Office

Sheriff's Office

Local Police Department

Code Enforcement Personnel

Regional Emissions Enforcement Program

City of Dallas - 114 Citations Issued in 2008

Penalties:

Fine Not to Exceed \$500 Per Offense

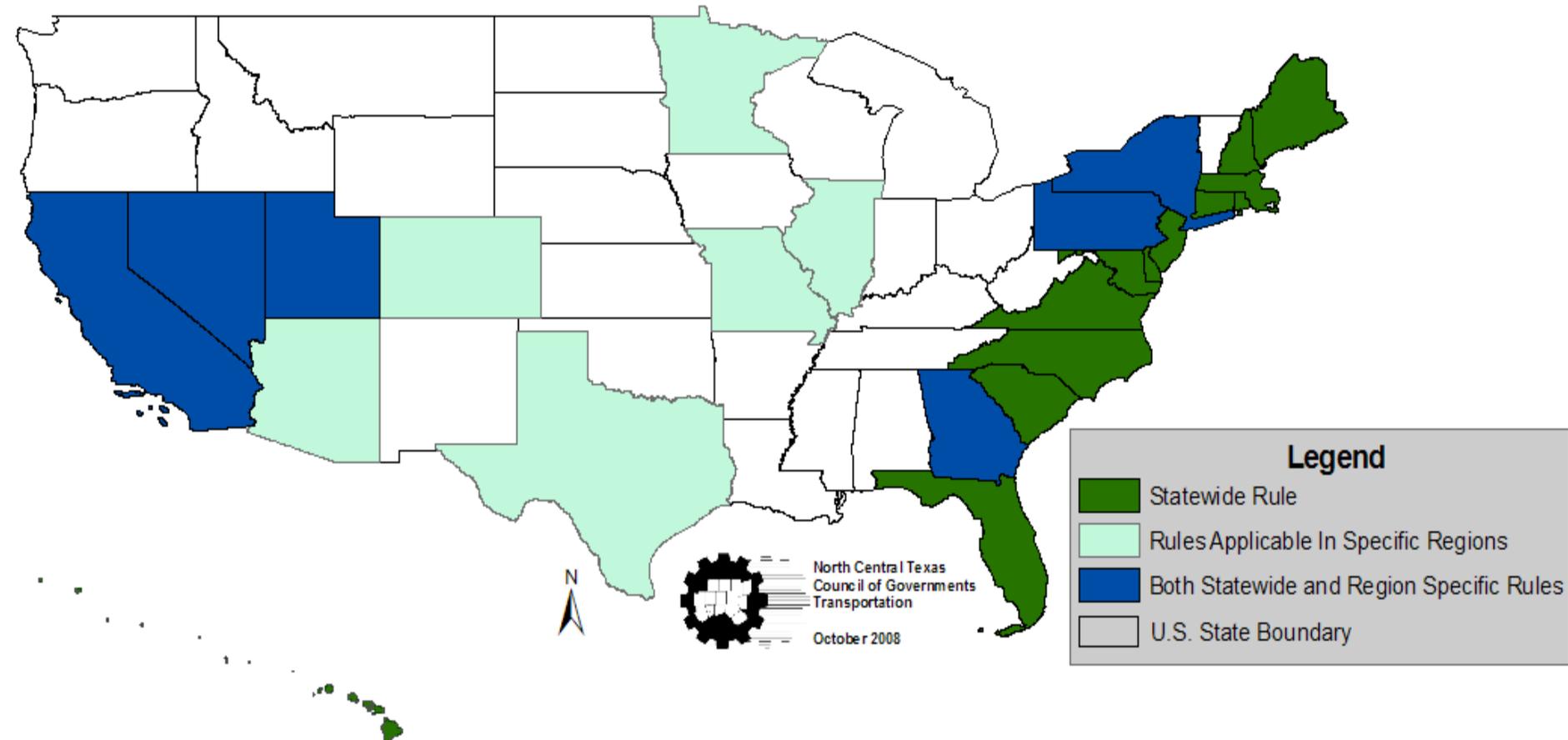
Each Violation is Considered a Separate Offense₂₅

Idling Restrictions Across the State/Country

U.S. IDLING RESTRICTIONS

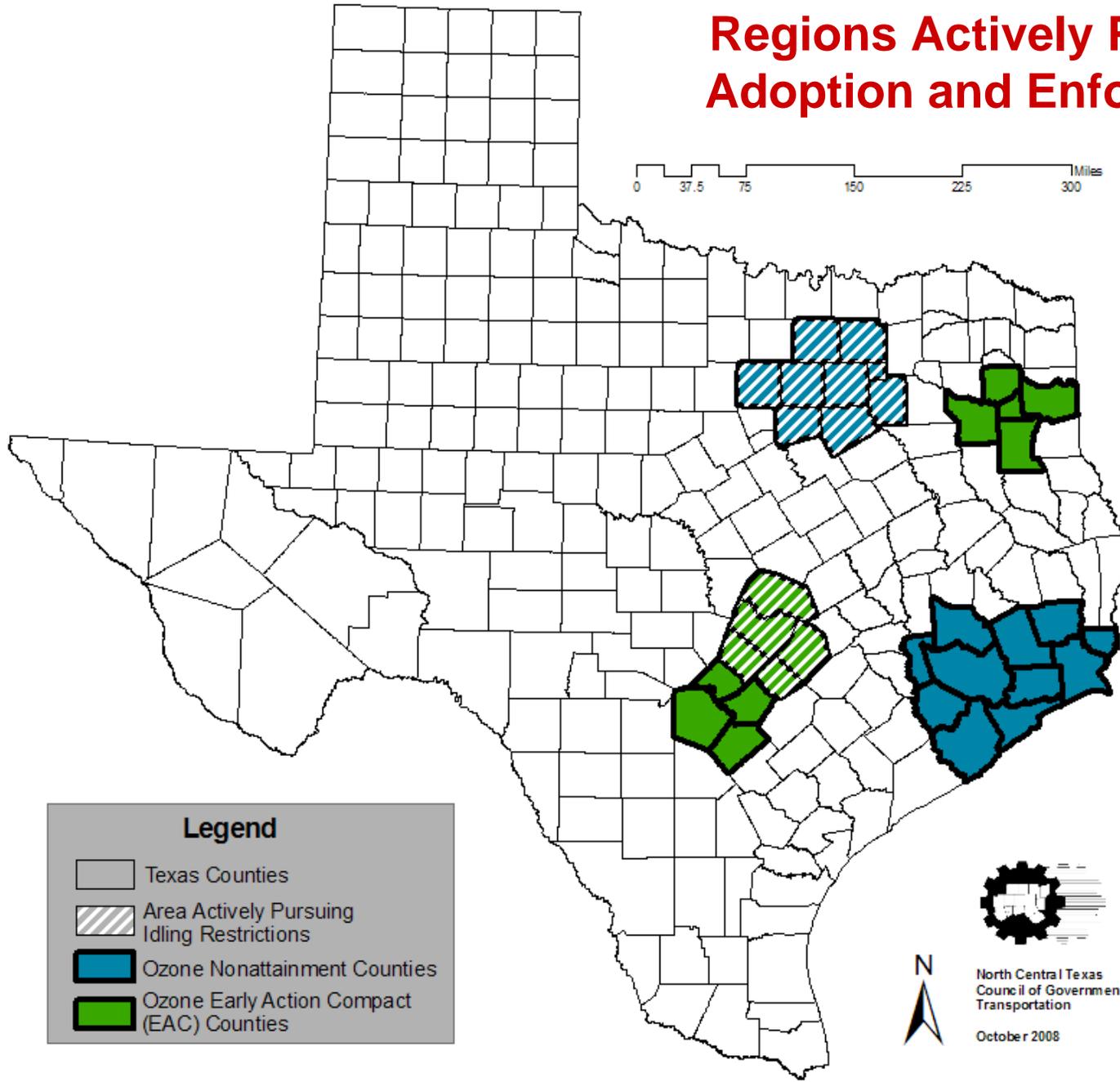
Statewide vs. Region Specific Rules

Each region/State has unique time limits and exemptions. Visit the American Transportation Research Institute for specific regulations.



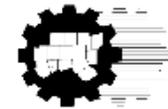
TEXAS IDLING RESTRICTIONS RULE

Regions Actively Pursuing Adoption and Enforcement



Legend

- White box: Texas Counties
- Blue-hatched box: Area Actively Pursuing Idling Restrictions
- Solid blue box: Ozone Nonattainment Counties
- Solid green box: Ozone Early Action Compact (EAC) Counties



North Central Texas
Council of Governments
Transportation

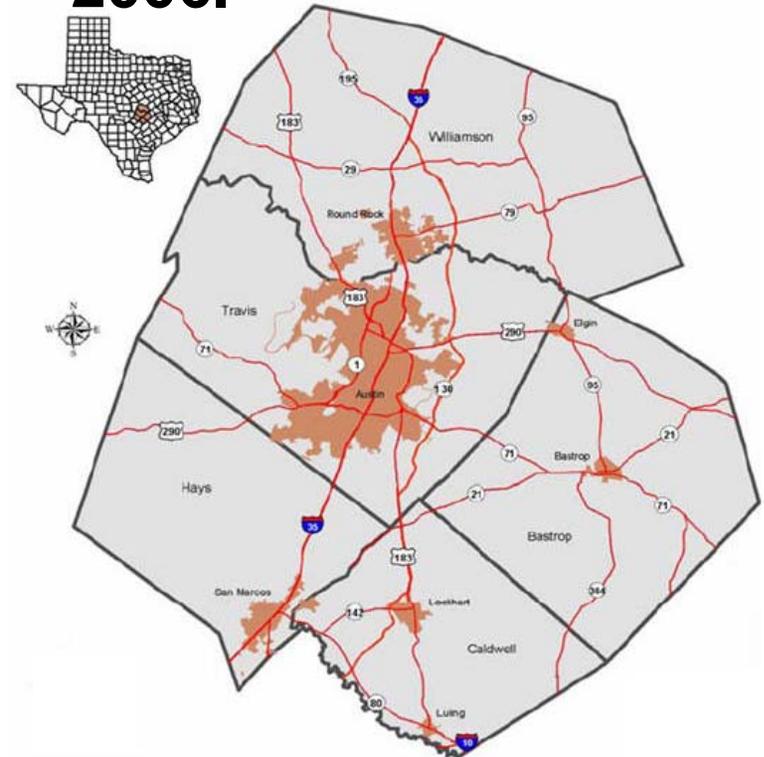
October 2008

LOCALLY ENFORCED IDLING RESTRICTIONS

Austin-Round Rock Example



An eight-month public education and outreach program preceded enforcement of the rules, which began in 2006.



Technology & Resources

LOCALLY ENFORCED IDLING RESTRICTIONS

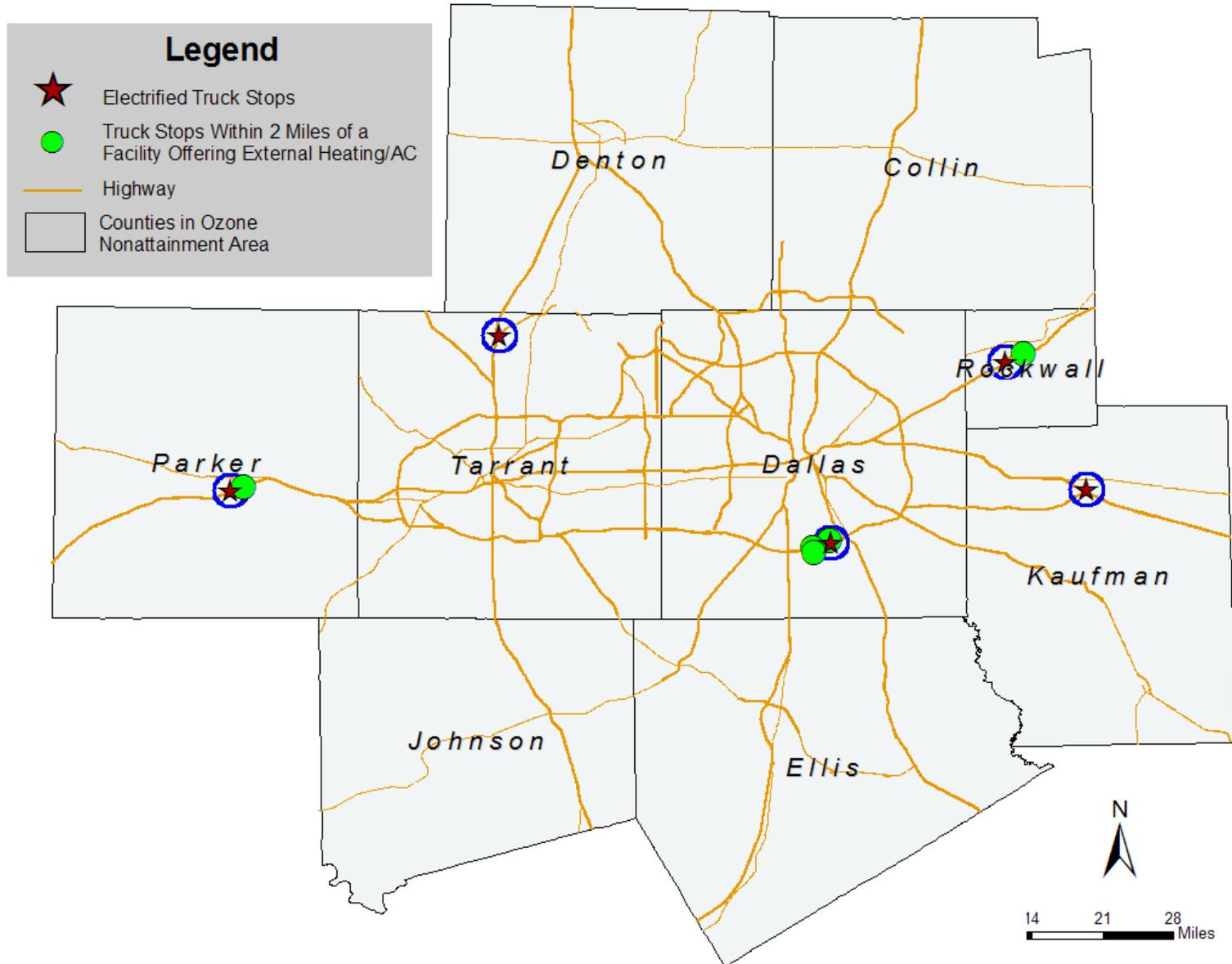
Idle Reduction Technology

On-Site Infrastructure



LOCALLY ENFORCED IDLING RESTRICTIONS

Truck Stop Electrification in North Central Texas



LOCALLY ENFORCED IDLING RESTRICTIONS

Idle Reduction Technology

On-Board Infrastructure

Auxiliary Power Units (APU)



Photo courtesy of Next Generation Power



Self-contained full-function auxiliary power in a shock-resistant chassis-mount design.

Automatic Engine Shutdown Devices

LOCALLY ENFORCED IDLING RESTRICTIONS

Funding Opportunities

NCTCOG's Diesel Idling Reduction Program

**On-Site and On-Board Idle Reduction Projects,
Call for Projects Open Until January 16, 2009**

www.nctcog.org/DIRP

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

National Idle Reduction Network News

**For Trucking/Transit Companies, Railroads, Manufacturers,
and Government Agencies to Reduce Heavy Vehicle Idling**

www1.eere.energy.gov/vehiclesandfuels/resources

LOCALLY ENFORCED IDLING RESTRICTIONS

www.EngineOffDallas.com



HOW GREEN IS YOUR CITY?

Green News
Air Quality
Green Buildings
Energy Efficiency
Water
Recycling
Trees
Environmental Management System
Land Management
Auditing & Compliance
Outreach & Education
Achievements & Awards
Sustainable Skylines
Texas Clean Air Cities Coalition
EarthFest 2008
Contact Us
Green Dallas Home



[Comprehensive Plan](#)



[City Environmental Calendar](#)

Today's Air Quality...



No Air Pollution
Watch for
Wednesday
Apr 16 2008

Anti-Idling Ordinance

To report an Idling Vehicle

If you see a vehicle over 14,000 pounds idling for over 5 minutes, please dial 311 and report the vehicle's license plate number to the operator.



Trucks Idling, credit: Texas Transportation Institute

What is the [City of Dallas' Anti-Idling Ordinance?](#) (Adobe PDF)

[Know Your Options](#) (Adobe PDF)

[Additional Information](#) (Adobe PDF)

[Contact Us](#) (Adobe PDF)

Interesting Information

- EPA [Fuel Savings Calculator](#)
- [FAQs](#) about the Anti-Idling Ordinance (Adobe PDF)
- [How to order](#) a restricted idling sign or brochures (Adobe PDF)
- Read the City of Dallas [Anti-Idling brochure](#) (Adobe PDF)

Resource Links (From the Adobe PDF files above)

- [\(EPA\) Idling Reduction Alternatives](#)
- [Texas Emissions Reduction Plan \(TERP\)](#)
- [Texas Commission on Environmental Quality](#)
- [U.S Department of Energy Alternative and Advanced Vehicles](#)
- [SmartWay Transport Partnership \(EPA Region 6\)](#)
- [IdleAire](#)
- [National Idling Reduction Network News](#)



HOW CAN YOU GO GREEN?

TOP 5 TIPS

- Save Energy
- Save Water
- Clean The Air
- Green Your Home
- Green Your Lawn

HOW GREEN IS...

- Your Ride?
- Your Home?
- Your Appliances?

You & Climate Change Who's In Charge Here?

GREEN FOR KIDS

- Growing Up Green
- EPA for Kids



[Texas Discovery Gardens](#)

LOCALLY ENFORCED IDLING RESTRICTIONS

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www.nctcog.org/IdlingRule