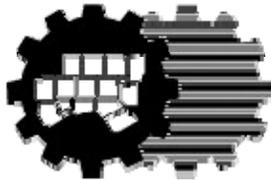


# **NORTH TEXAS AIR QUALITY 101: OPPORTUNITIES FOR THE BUSINESS COMMUNITY**

**Leadership Allen  
December 12, 2008**



**Chris Klaus  
Senior Program Manager  
North Central Texas Council of Governments**

# 1990 CLEAN AIR ACT

## National Ambient Air Quality Standards

### Six Criteria Pollutants

Carbon Monoxide (CO)

Lead (Pb)

Nitrogen Oxides (NO<sub>x</sub>)

Ozone (O<sub>3</sub>)

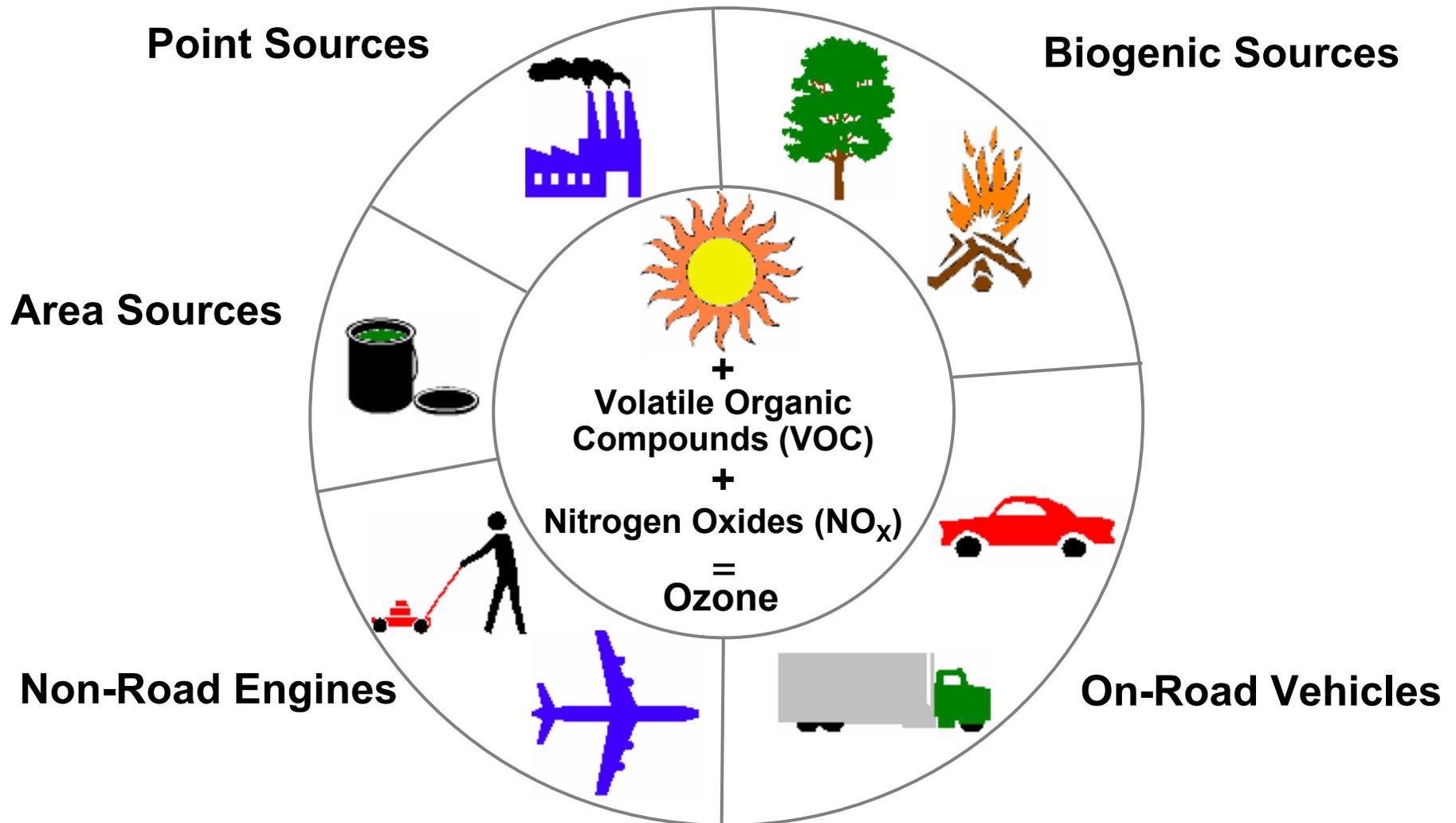
Particulate Matter (PM<sub>10</sub> & PM<sub>2.5</sub>)

Sulfur Dioxide (SO<sub>2</sub>)



# HOW IS OZONE FORMED?

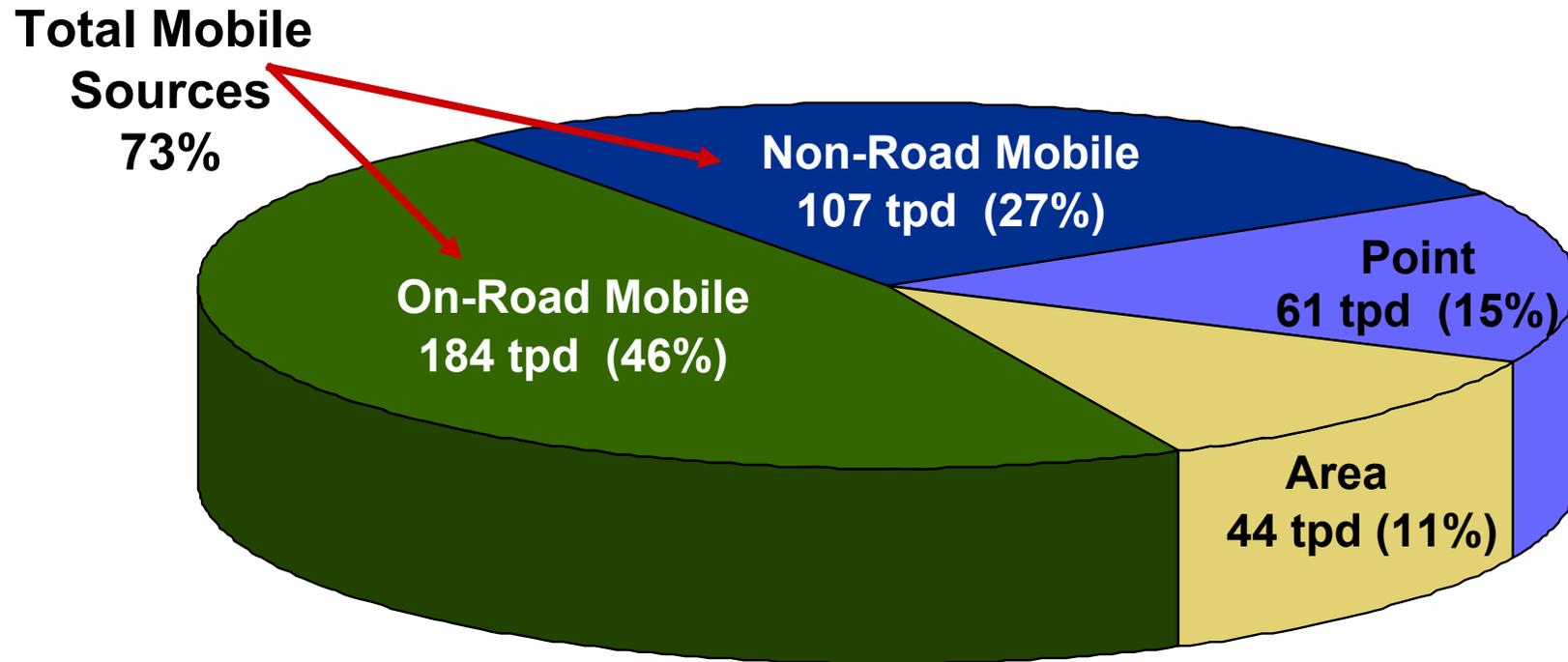
## Emission Source Categories



# DFW NONATTAINMENT AREA

## 2009 Nitrogen Oxide (NO<sub>x</sub>) Emission Inventory

### Emission Source Category Estimates

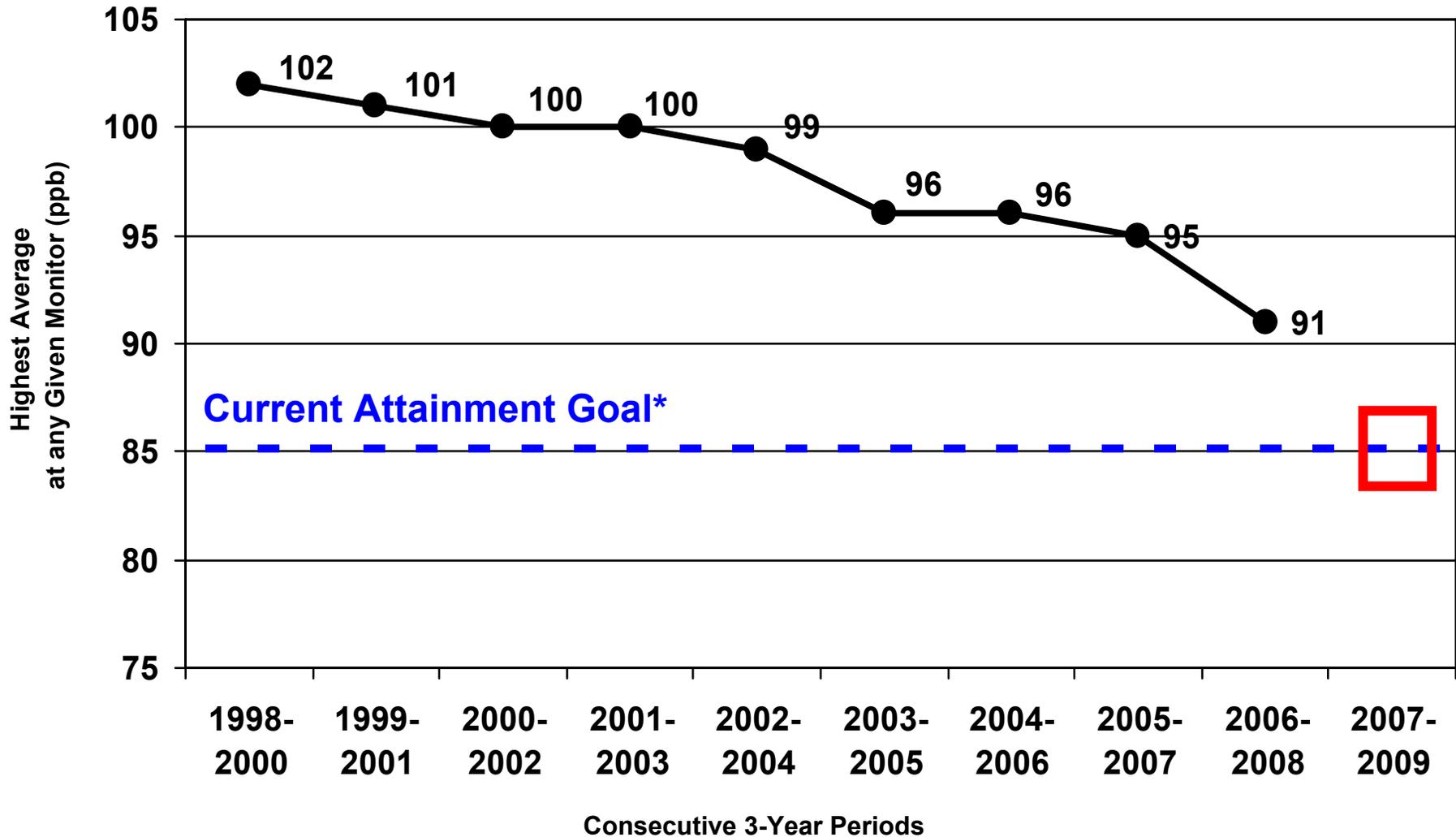


**Total NO<sub>x</sub> = 396 Tons Per Day (tpd)**



# DFW NONATTAINMENT AREA

## 8-Hour Ozone Historical Trends



\* 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).

# **EPA REVISED OZONE STANDARD**

## **Health Benefits and Cost Estimates**

**The New Standard (75 ppb) will Prevent, in 2020:**

- 380 Cases Of Chronic Bronchitis**
- 890 Fatal Heart Attacks**
- 1,000 Cases Of Acute Bronchitis**
- 1,900 Hospital And Emergency Room Visits**
- 6,100 Cases Of Aggravated Asthma**
- 11,600 Cases Of Upper/Lower Respiratory Symptoms**
- 243,000 Days Of Missed Work Or School**
- 750,000 Days Of Restricted Activity**

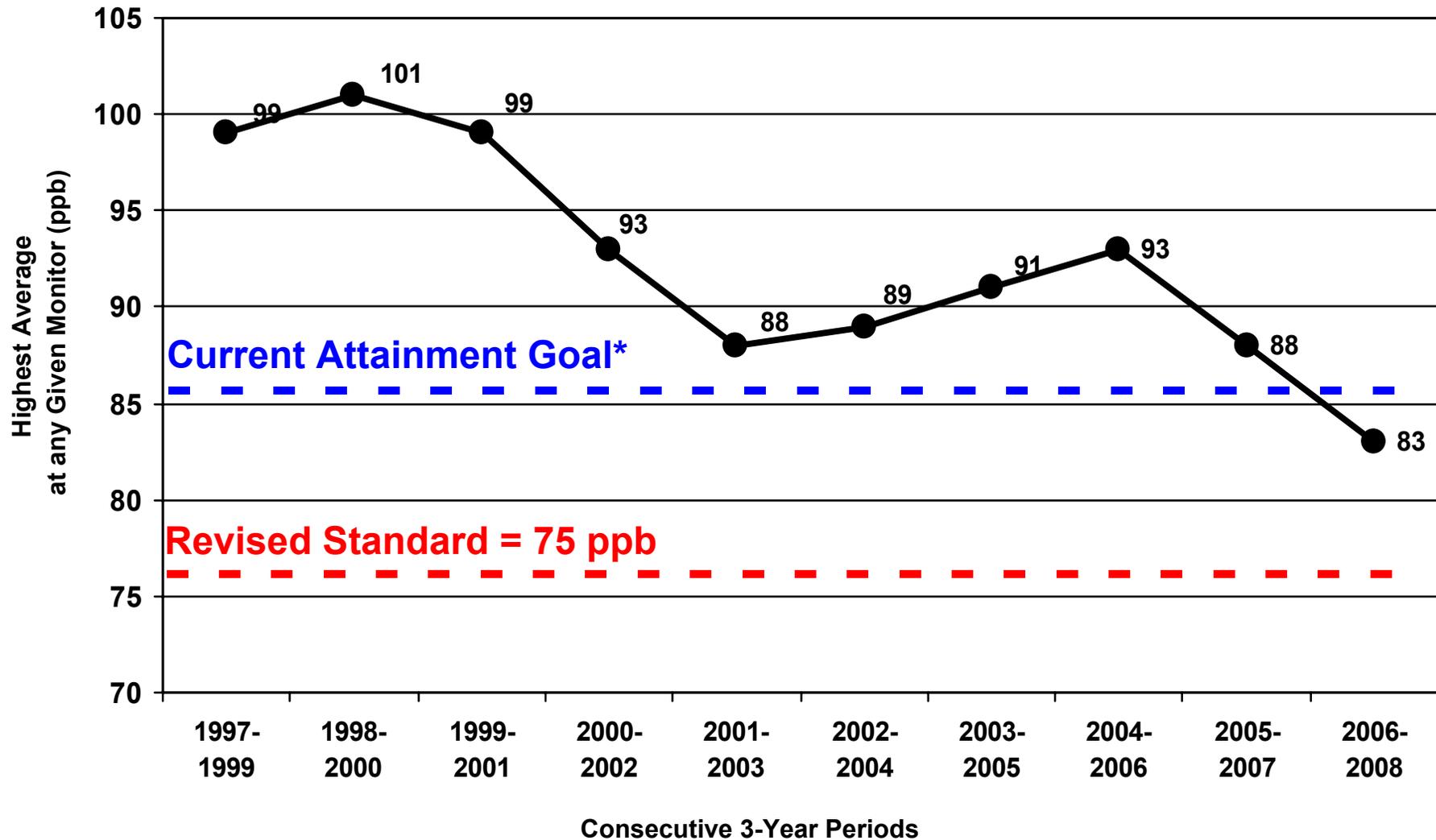
**Benefits are Likely Greater than Costs:**

**Estimated Health Benefits In 2020 Is \$2-\$19 billion**

**Estimated Cost Of Implementation Is \$7.6-\$8.5 billion**

# HISTORY OF THE FRISCO OZONE MONITOR

## 3-Year Average of Frisco Monitor Design Values

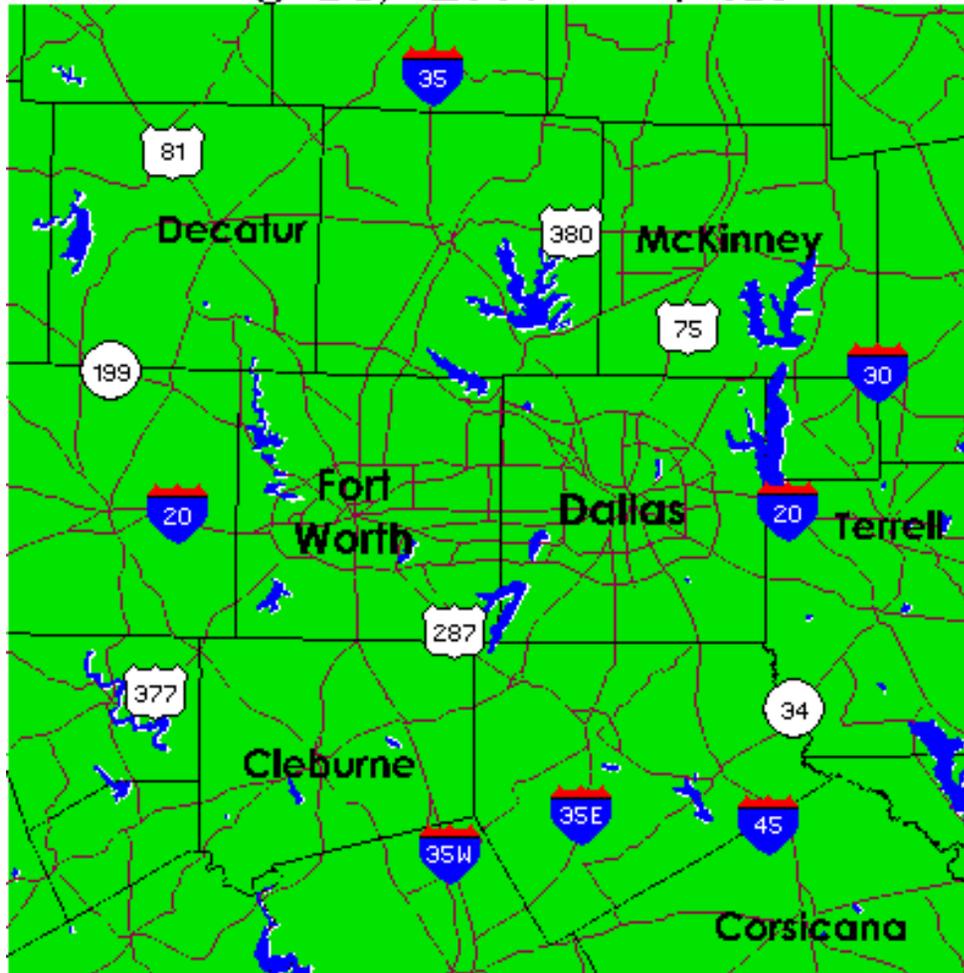


\* Current Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than 85 parts per billion (ppb).

# HIGHEST OZONE LEVEL IN 2007

## Maximum Daily 8-Hour Average = 121 ppb

North-Central Texas  
Aug 14, 2007 7 AM



### Air Quality

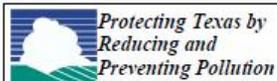


Scale: Yellow = 80-99 ppb, Orange = 100-124 ppb, Red = 125-149 ppb (Forecasted 8-hour average ozone concentration based on a 1-hour average).

Source: NCTCOG/TCEQ - [www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone\\_animation.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_animation.pl)

# OZONE NONATTAINMENT AREAS

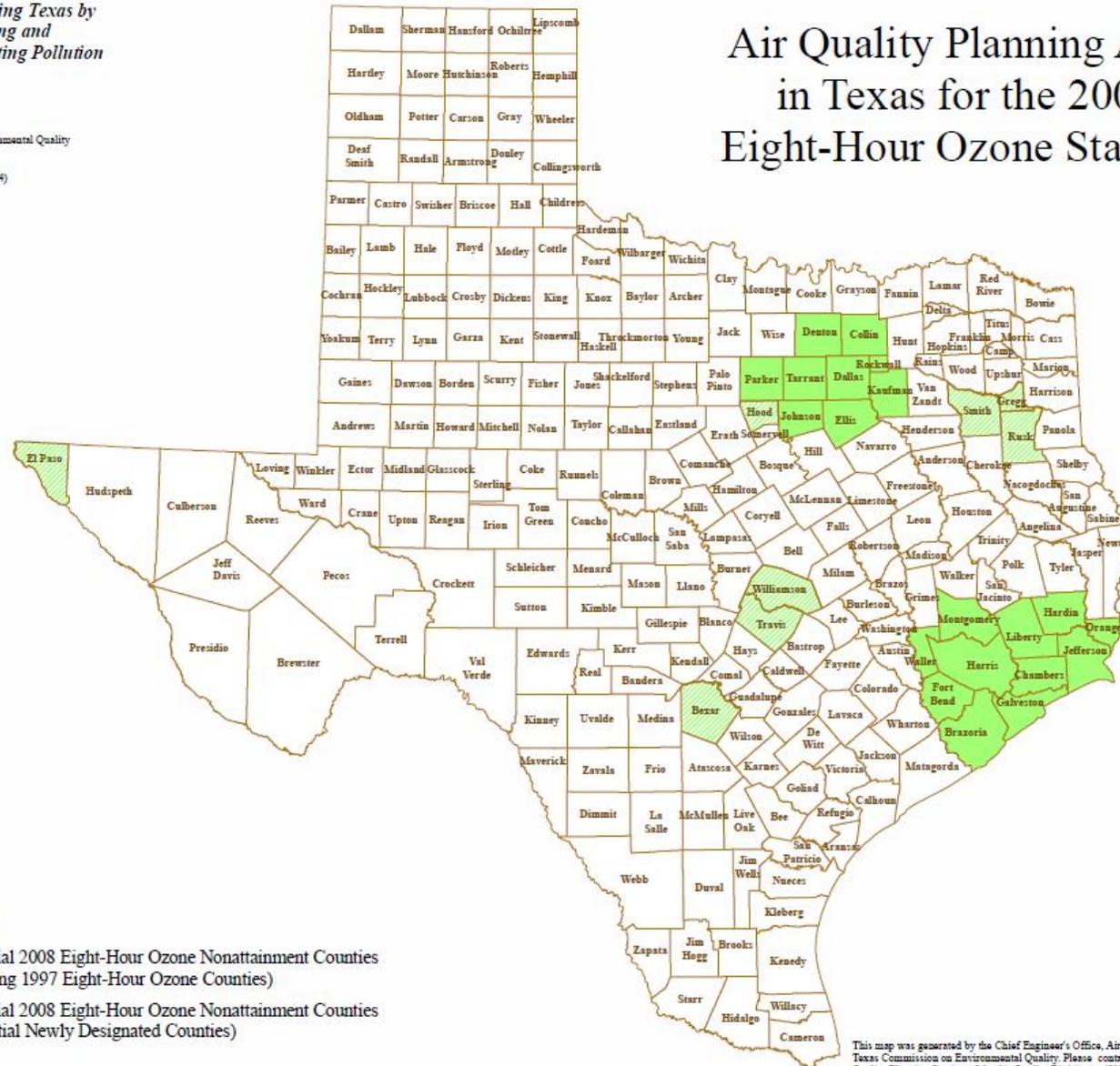
## TCEQ Recommendations



**TCEQ**

Texas Commission on Environmental Quality  
Chief Engineer's Office  
Air Quality Division  
PO Box 13087 (Mail Code 164)  
Austin, Texas 78711-3087

Air Quality Planning Areas  
in Texas for the 2008  
Eight-Hour Ozone Standard



### Legend

- Potential 2008 Eight-Hour Ozone Nonattainment Counties (Existing 1997 Eight-Hour Ozone Counties)
- Potential 2008 Eight-Hour Ozone Nonattainment Counties (Potential Newly Designated Counties)

This map was generated by the Chief Engineer's Office, Air Quality Planning Division of the Texas Commission on Environmental Quality. Please contact Marge McAllister of Air Quality Planning Section of the Air Quality Division at (512) 239-1967. Nov. 18, 2008

# **EPA REVISED 8-HOUR OZONE STANDARD**

## **Adoption Timeline**

<b>Event</b>	<b>Tentative Dates</b>
<b><u>EPA Proposed More Stringent 8-Hour Standard</u></b>	<b><u>Jun. 20, 2007</u></b>
<b>EPA Issues Final Standards</b>	<b>Mar. 12, 2008</b>
<b>TCEQ Commissioners' Meeting</b>	<b>Dec. 10, 2008</b>
<b>State Designation Recommendations to EPA (Based on 2006-2008 data)</b>	<b>Mar. 12, 2009</b>
<b>Final Designations by EPA</b>	<b>Mar. 12, 2010</b>
<b>Effective Date of Designations</b>	<b>2010</b>
<b>State Implementation Plans Due to EPA</b>	<b>2013</b>
<b>Attainment Deadline (Depending on Severity)</b>	<b>2013-2030</b>

**For information on Dallas-Fort Worths' Nonattainment Status, Contact Whitney Ewerz at 817-608-2328 or [wewerz@nctcog.org](mailto:wewerz@nctcog.org)**

**AIR QUALITY  
PARTNERSHIPS, POLICIES, PROGRAMS,  
AND PROJECTS**

# NORTH TEXAS CLEAN AIR COALITION

## Who They Are

### Mission

To Encourage Voluntary Efforts to Improve Air Quality Through *Educating, Engaging, and Recognizing* the Business Community



### Organizational Status

Founded in 1993

Granted 501c3 Status in 2008 by the IRS, and Depends on Investments from Organizations Who Support Their Clean Air Mission and Message

A Volunteer Executive Board Guides and Directs the Organization's Mission

A Volunteer Business Community Outreach Committee Implements the Working for Clean Air™ Program of Work

# NORTH TEXAS CLEAN AIR COALITION

## Services

### Education and Implementation Assistance

#### Employee Trip Reduction Programs:

**Carpooling, Vanpooling, and Mass Transit**

**Biking/Walking**

**Telecommuting**

**Flexible Scheduling**

**Brown Bagging for Lunch**

**Guaranteed Ride Home for Commuter Programs**

**Tax Benefits of Commuter Programs**

**Try Parking It**

**North Texas Commuter Tracking Program**

**Promotes Commuter Alternatives**

[www.tryparkingit.com](http://www.tryparkingit.com)

#### Other:

**Energy Efficiency and Conservation**

**Green Building Codes**

**Sustainable Development**

**Clean Vehicles/Fleets and Construction Equipment**

walk . bike . carpool . transit . telecommute . flex schedule . vanpool . bike . carpool . transit . telecommute  
flex schedule . vanpool . walk . carpool . transit . telecommute . flex schedule . vanpool . bike . walk . transit  
telecommute . carpool . flex schedule . vanpool . walk . bike . transit . telecommute . vanpool . flex schedule  
vanpool . walk . transit . bike . telecommute . carpool . flex schedule . telecommute . bike . transit . vanpool  
carpool . flex schedule . walk . transit . vanpool . telecommute . carpool . bike . flex schedule . transit  
bike . telecommute . carpool . walk . flex schedule . vanpool . transit . telecommute . flex schedule . carpool  
transit . walk . vanpool . bike . telecommute . carpool . flex schedule . transit . vanpool . bike . telecommute

# **NORTH TEXAS CLEAN AIR COALITION**

## **Let's Do Lunch Program**

**Outreach Events Designed to Educate Employers about Air Quality Issues and NTCAC Services**

**Enables Business to Utilize Sustainable Practices to Reduce Their Impact on the Environment**

**Conducted Five Events In 2008 Throughout the Nonattainment Area**

**Attended by 56 Employers in a Wide-Array of Industries**

**Representation of Over 52,000 Employees**

**Vehicle Miles Reduced: 727,000**

**Savings: \$324,000**

# **NORTH TEXAS CLEAN AIR COALITION**

## **Working for Clean Air™ Award Program**

**Recognizes Businesses Who Go Above and Beyond, Making the  
Greatest Difference for Air Quality in North Texas**

**5th Annual Award Ceremony Held in October 2008**  
**57 Employers Applied**  
**Representing More than 94,000 Employees**

[www.workingforcleanair.org](http://www.workingforcleanair.org)

**For Information on the North Texas Clean Air Coalition, Contact  
Jennifer Cohen, Project Director, at 817-690-1921 or e-mail:  
[jennifer@workingforcleanair.org](mailto:jennifer@workingforcleanair.org)**



# TEXAS EMISSIONS REDUCTION PLAN

## Background

**Grant Assistance Program**

**Replace, Repower, or Retrofit Old Diesel Vehicles**

**Funding Through Fiscal Year 2013**

**Cost Effectiveness Up to \$15,000 Per Ton NO<sub>x</sub>**

**Legislature Appropriated \$150 Million Per Year**

[www.TERPGrants.org](http://www.TERPGrants.org)



**1-800-919-TERP**

# TEXAS EMISSIONS REDUCTION PLAN

## Grant Opportunities

### Emissions Reduction Incentive Grant (ERIG)

Open: December 1, 2008 - February 20, 2009

Eligible Project Types: On-Road, Non-Road, Locomotive, Marine, Stationary, Idle-Reduction (On-Board & On-Site), and Rail Relocation

### Rebate Grant Program

Open: December 1, 2008 – June 30, 2009 (1st-Come, 1st-Served)

Eligible Projects Types : On-Road and Non-Road Only

### Workshops:

Midlothian: December 15, 2008

Arlington: December 18, 2008

### NCTCOG Partnership Program

2009 Third-Party Grant Pending – \$10,000,000

Focus on Construction, Idle Reduction, Local Government

# **REGIONAL POLICY PROGRAMS**

## **Clean Fleet Vehicle Policy**

**Minimize Emissions Among Public Sector Fleet Vehicles**

**Endorsed by Regional Transportation Council**

**Impact on Funding Requests**

**Criteria for Clean Vehicle Funding**

**May be Considered in General Funding Decisions**

**Annual Reporting Process Allows for Information Gathering**

**Best Practices**

**Fleet Inventory**

**Widespread Adoption**

**83 Entities to Date**



# **REGIONAL POLICY PROGRAMS**

## **Clean Fleet Vehicle Policy**

**Principles Applicable To All Fleets Including Private Companies**

### **Acquisition**

**25% Cleaner or Newest Engine Standard**

### **Operations**

**Optimize Use of Cleanest Vehicles**

**Restrict Unnecessary Idling**

**Driver Training**

### **Maintenance**

**Routine Emissions Inspections**

### **Benefits**

**Efficient Operations**

**Reduced Emissions**

**Consistent Goals**

**Public Recognition**

**Contact: Lori Pampell at 817-695-9232 or [lpampell@nctcog.org](mailto:lpampell@nctcog.org)**

**<http://www.nctcog.org/trans/air/vehicles/fleet/policy/index.asp>**

# LOCALLY ENFORCED IDLING RESTRICTIONS

## Control Requirements

**Applies To Gasoline or Diesel Vehicles Over 14,000 Pounds (GVWR)**

**Restricts Idling the Main Engine for No More than 5 Minutes**

**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 Two-Mile Radius of a Facility Offering External Heating and Air Conditioning**



# LOCALLY ENFORCED IDLING RESTRICTIONS

## Exemptions

### Vehicle Type

**Vehicles With Sleeper Berth (Through Sept 2009)**  
**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

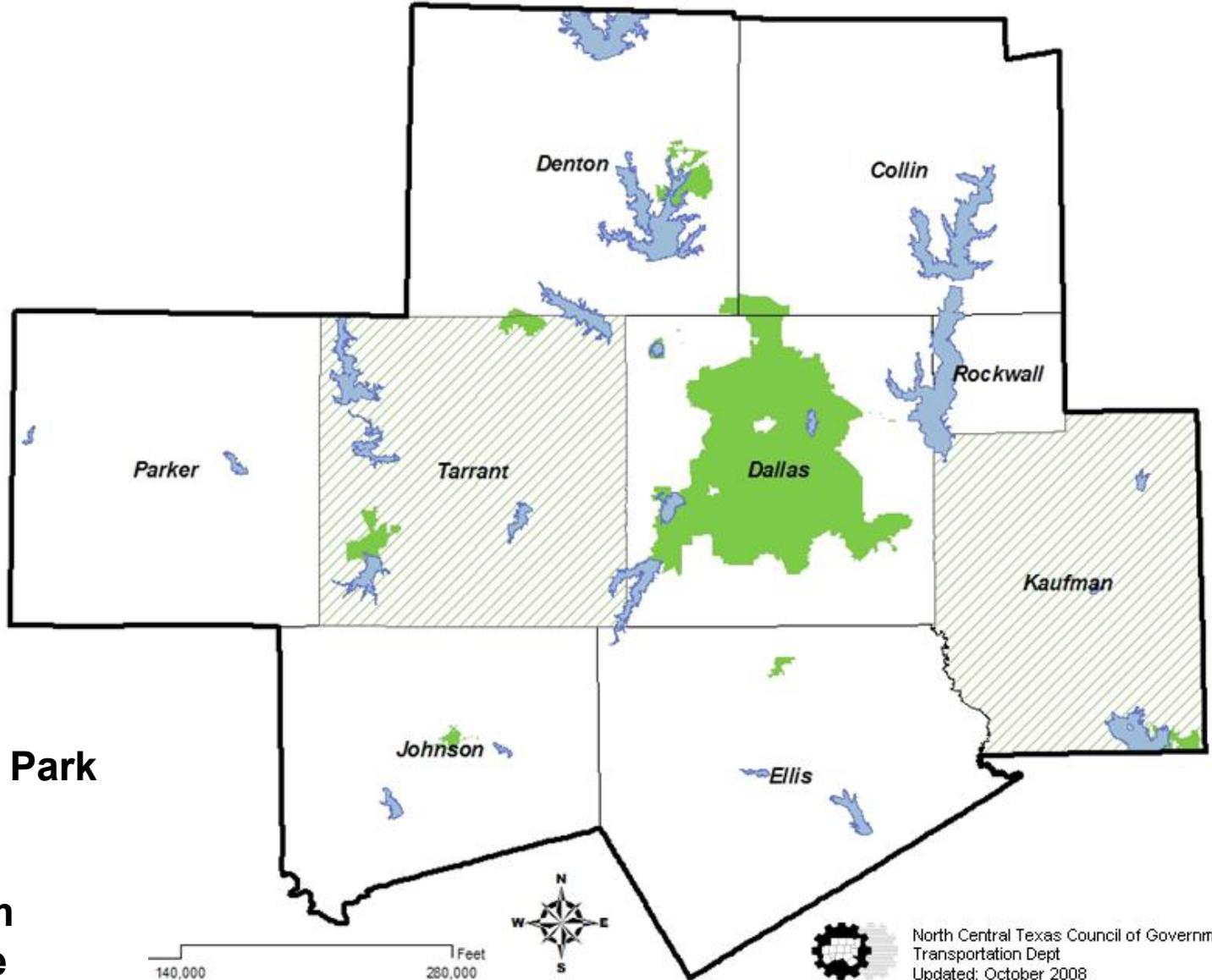
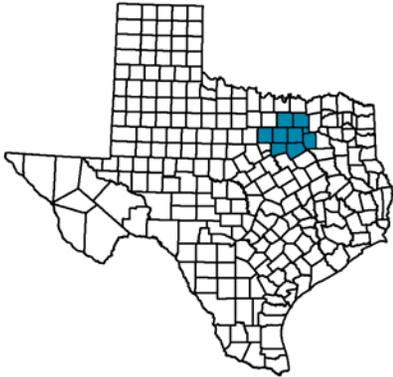
**Idling Due to Traffic Congestion**  
**Motors Run as Power Source for Operations**  
**Idling During Maintenance/Diagnostic Purposes**  
**Operation Solely to Defrost a Windshield**

### Air Conditioning And Heating Provision

**For Passenger Comfort / Safety in Vehicles for Public/ Commercial Passenger Transportation ( $\leq 30$  Minutes)**  
**For Employee Health or Safety While Employee Related to Roadway Construction**  
**During Government-Mandated Rest Period**

# LOCALLY ENFORCED IDLING RESTRICTIONS

## Adopted to Date in North Central Texas Area



### Entities

- City of Benbrook
- City of Dallas
- City of Keene
- City of Mabank
- City of Pecan Hill
- City of University Park
- Kaufman County
- Tarrant County
- Town of Little Elm
- Town of Westlake



North Central Texas Council of Governments  
Transportation Dept  
Updated: October 2008

# LOCALLY ENFORCED IDLING RESTRICTIONS

## Education Campaign

NCTCOG is Developing for Regional Use:



Anti-Idling Street Signs

Driver Education Brochures

Idling Complaint Hotline and Web Site to  
Report Idling Vehicles

**1-877-NTX-IDLE** [COMING SOON]

[www.EngineOffNorthTexas.org](http://www.EngineOffNorthTexas.org)

**Contact: Amanda Brimmer at 817-608-2354 or**  
[abrimmer@nctcog.org](mailto:abrimmer@nctcog.org)

# **DIESEL IDLING REDUCTION PROGRAM**

## **Call for Projects**

### **Program Goals**

**Reduce NOx Emissions from Heavy Duty Diesel Idling  
Incentivize Investment in Idle-Reduction Technologies**

### **Funding**

**Federal And EPA Funds – \$1,950,000**

### **Eligible Project Types**

#### **On-Board Projects**

**Purchase and Installation of  
Eligible Devices  
Incremental Cost of New Vehicles  
with Integrated Systems  
Up to 50% of Project Cost**

#### **On-Site Projects**

**Installation of Infrastructure  
Up to 80% of Project Cost**



# **DIESEL IDLING REDUCTION PROGRAM**

## **Call for Projects**

**Federal Funding Focused in Ozone Nonattainment Area**

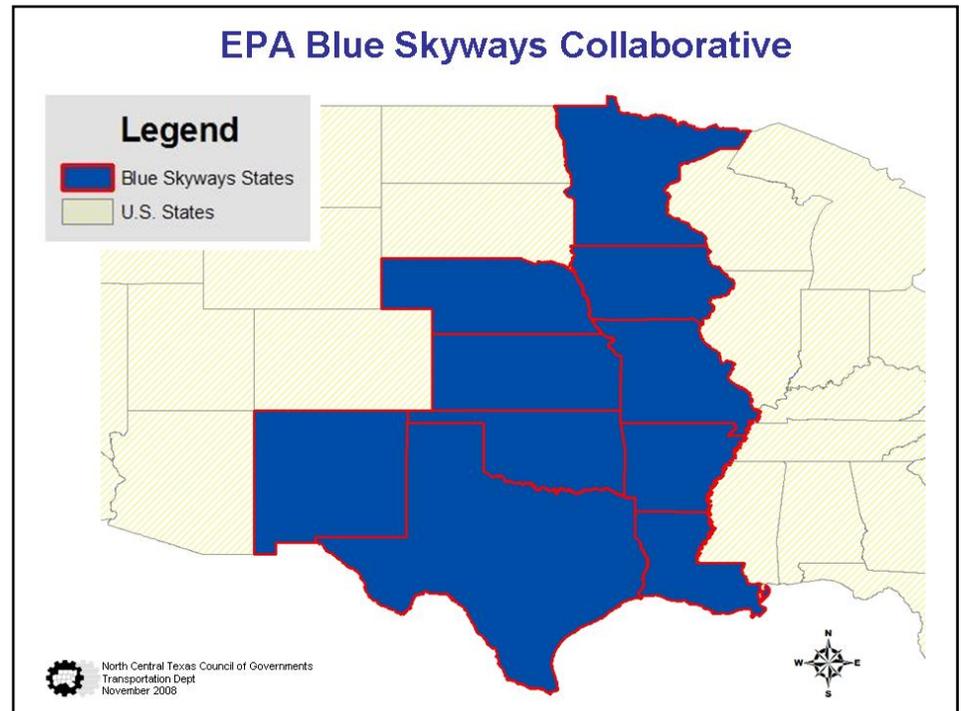
**EPA Award Allows for Inclusion of Transient Projects**

**Focus on Blue Skyways Collaborative and I-35 Corridor**

**Applications Currently Being Accepted**

**Deadline: January 16, 2009, at 5 p.m.**

**Contact: Lori Pampell**  
**817-695-9232 or**  
[lpampell@nctcog.org](mailto:lpampell@nctcog.org)



<http://www.nctcog.org/trans/air/vehicles/fleet/policy/index.asp>

# REGIONAL POLICY PROGRAMS

## Construction Equipment

In Development for Publicly Owned and Contracted Equipment

Approximately 10% of all NOx Emissions Attributed to  
Construction Equipment

### Policy Goals

Encourage Use of Cleaner Equipment

Encourage Use of Existing Incentives

(i.e. TERP)



Includes Specification for Engines and Equipment Operation

Contact Lori Pampell at 817-695-9232 or [lpampell@nctcog.org](mailto:lpampell@nctcog.org)

<http://www.nctcog.org/trans/air/vehicles/fleet/constructionfleets/index.asp>

# **NORTH TEXAS GREEN & GO**

## **Clean Taxi Partnership**

### **\$1.625 Million in Funds**

**Regional Transportation Council  
The Sue Pope Fund**



### **Grant Opportunity**

**\$5,000 Awards for Cleaner Vehicles  
Taxi Companies and Individual Operators**

### **Incentives**

**Longer Service Allowances  
Extensive Marketing Campaign**

### **Time Frame**

**Call Closes December 31, 2008 (Stop Taking Applications  
for Taxi Vehicle Replacements)**

# **NORTH TEXAS GREEN & GO**

## **Clean Taxi Partnership**

### **What You Can Do**

- Increase Demand for Green Taxis**
- Pledge to Call Upon a Green Taxi**



### **Incentives**

- Organization Will Be Recognized in Press Releases and/or Press Events**
- Organization's Logo Will Be placed on Web Site**
- Will Receive Regularly Updated Green Taxi Company Contact Lists for Use**
- Green Is In**

**Contact Jenny Danieau at 817-608-2342 or [jdanieau@nctcog.org](mailto:jdanieau@nctcog.org)  
<http://www.nctcog.org/trans/air/vehicles/fleet/regulated/GreenTaxi.asp>**

# **ENERGY EFFICIENCY**

## **Organizations and Businesses**

### **What You Can Do?**

**Turn Off Lights, Computers, and Office Equipment When You Leave the Room or at the End of the Day**

**Make the Switch to High-Efficiency or Compact Fluorescent Light Bulbs and Energy Star Rated Products, and to an Electric Provider Using Renewable Energy**

**Reduce, Reuse, Recycle**

**Check for Drafts in Doorways or Windows and Have the Heating, Ventilating, and Air Conditioning System Inspected Regularly**



# ENERGY EFFICIENCY

## Resources

### Texas Commission on Environmental Quality's Site Assistance Visit Plus (SAV+) Program

Facility Owners or Operators Can Get Help Generating Innovative Strategies; Identifying Performance Issues; and Getting Site-Specific, Pollution Prevention Tips

For information call 512-239-3100 or [sav@tceq.state.tx.us](mailto:sav@tceq.state.tx.us)

### Texas State Energy Conversation Office's Energy Program

Assists public school districts, colleges, universities and non-profit hospitals in setting up and maintaining effective energy efficiency programs

No Cost To The Participating Public Entity

Contact Stephen Ross at 512-463-1770 or

[stephen.ross@cpa.state.tx.us](mailto:stephen.ross@cpa.state.tx.us)

### Contact Your Energy Provider to Investigate Any Energy Efficiency Education or Energy Audits They Provide

### The Office of Energy Efficiency and Renewable Energy (EERE) Financial Assistance Opportunities

<http://www1.eere.energy.gov/financing/>

# REGIONAL COORDINATION

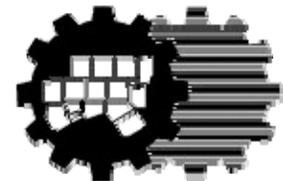
## Regional Energy Efficiency & Emissions Reduction Initiatives Roundtable

**Quarterly Forum to Share Knowledge on Energy Efficiency and Air Quality Emissions Reduction Measures**

**Opportunity to Explore New Ideas and to Discuss Implementation of Various Strategies Including Successes, Challenges, and Lessons Learned**

**Typical Attendees: Cities, Counties, Airports, Independent School Districts, Universities, State Agencies, Federal Agencies, and Private Companies**

**<http://www.nctcog.org/trans/committees/reri/index.asp>**



# **NORTH TEXAS AIR QUALITY 101: OPPORTUNITIES FOR THE BUSINESS COMMUNITY**

## **CONTACT INFORMATION**

**Chris Klaus**  
**Senior Program Manager**  
**North Central Texas Council of Governments**  
**817-695-9286**  
**[cklaus@nctcog.org](mailto:cklaus@nctcog.org)**