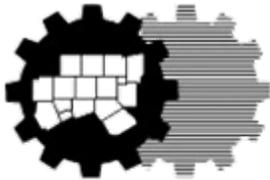


# **NORTH TEXAS AIR QUALITY UPDATE**

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## **Texas Environmental Health Association Meeting**

**August 22, 2008**



**Mindy Mize  
Program Manager  
North Central Texas Council of Governments**

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# **NORTH TEXAS AIR QUALITY UPDATE**

## **Outline**

**National Ambient Air Quality Standards**

**Health Effects**

**State Implementation Plan**

**Local Transportation Conformity**

**Local Air Quality Programs**

**Contacts**

# 1990 CLEAN AIR ACT

## National Ambient Air Quality Standards (NAAQS)

### Six Criteria Pollutants

Carbon Monoxide (CO)

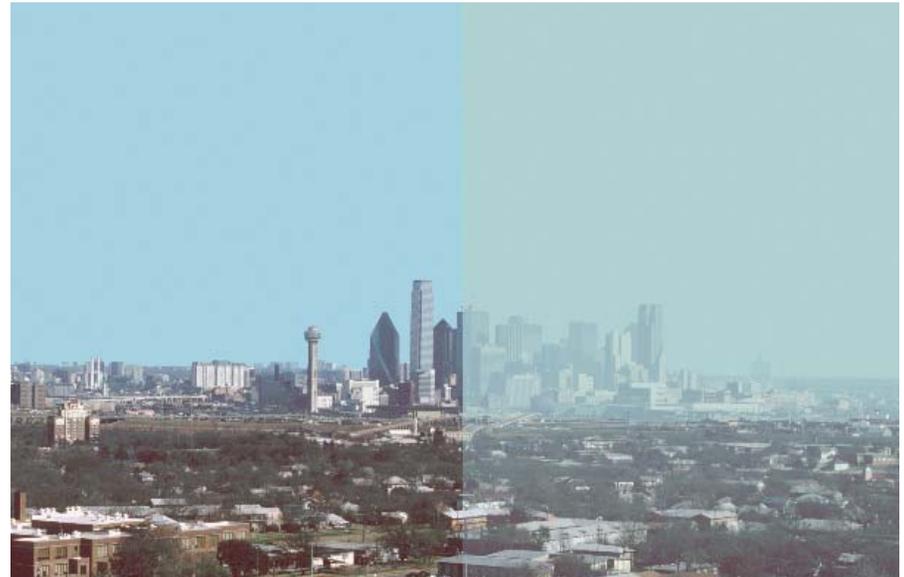
Lead (Pb)

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>)



# FEDERAL OZONE STANDARDS

## DFW Nonattainment Area

**Clean Air Act Amendments of 1990**

**1-Hour Ozone Standard**

**Four North Central Texas Counties**



**8-Hour Ozone Standard**

**Nine North Central Texas Counties**

**2004 Designation as Moderate**

**8-Hour Ozone Standard**

**Attainment Date: June 15, 2010**

# **EPA REVISED OZONE STANDARD**

## **Implementation Timeline**

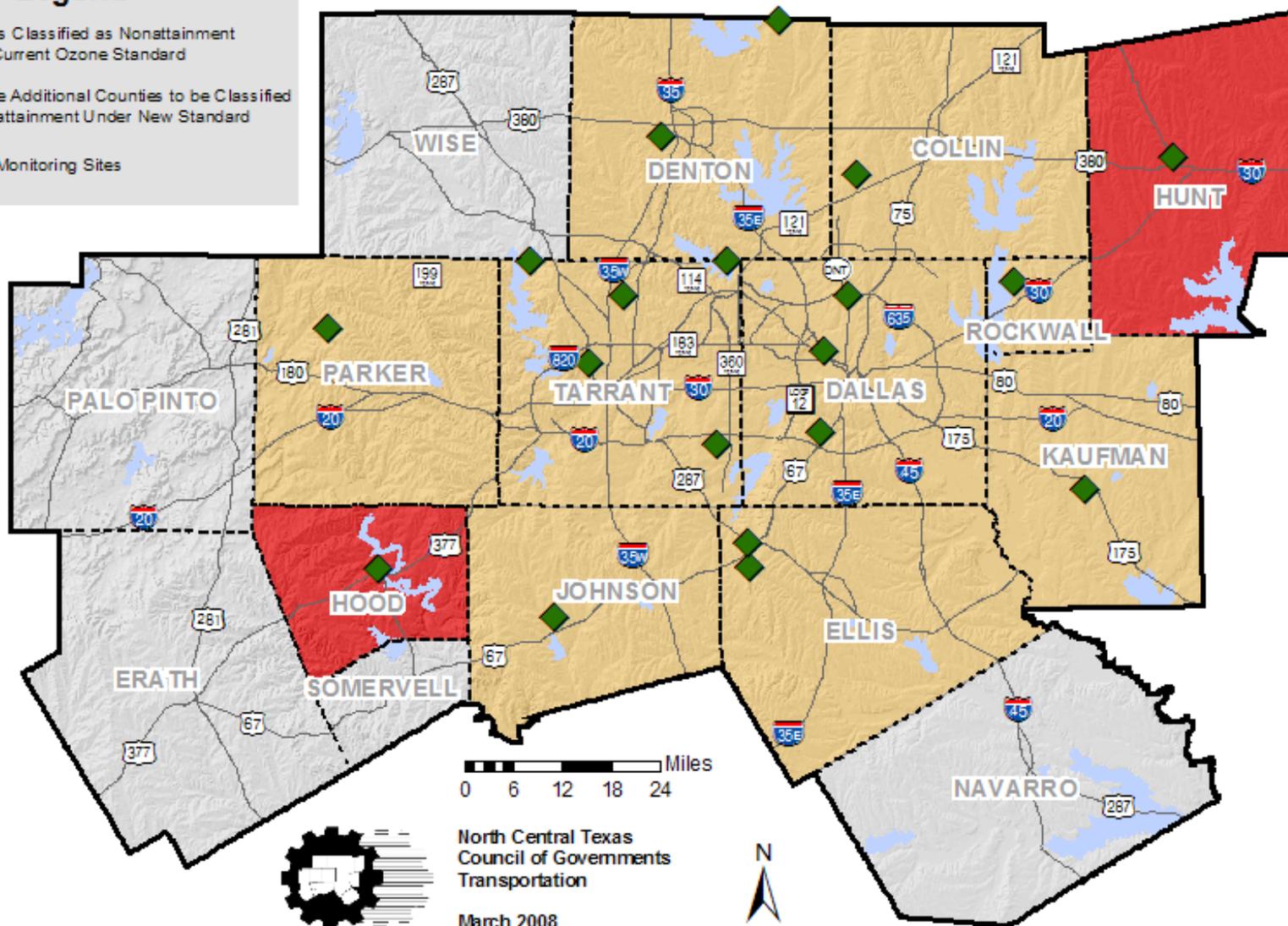
<b><u>Event</u></b>	<b><u>Tentative Dates</u></b>
<b>EPA Proposes More Stringent 8-Hour Standard</b>	<b>Jun. 20, 2007</b>
<b>Four Public Hearings on Proposal:</b>	
<b>Los Angeles and Philadelphia</b>	<b>Aug. 30, 2007</b>
<b>Chicago and Houston</b>	<b>Sept. 5, 2007</b>
<b>EPA Issues Final Standards</b>	<b>Mar. 12, 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>

# EPA REVISED OZONE STANDARD

## 8-Hour Ozone Nonattainment Area

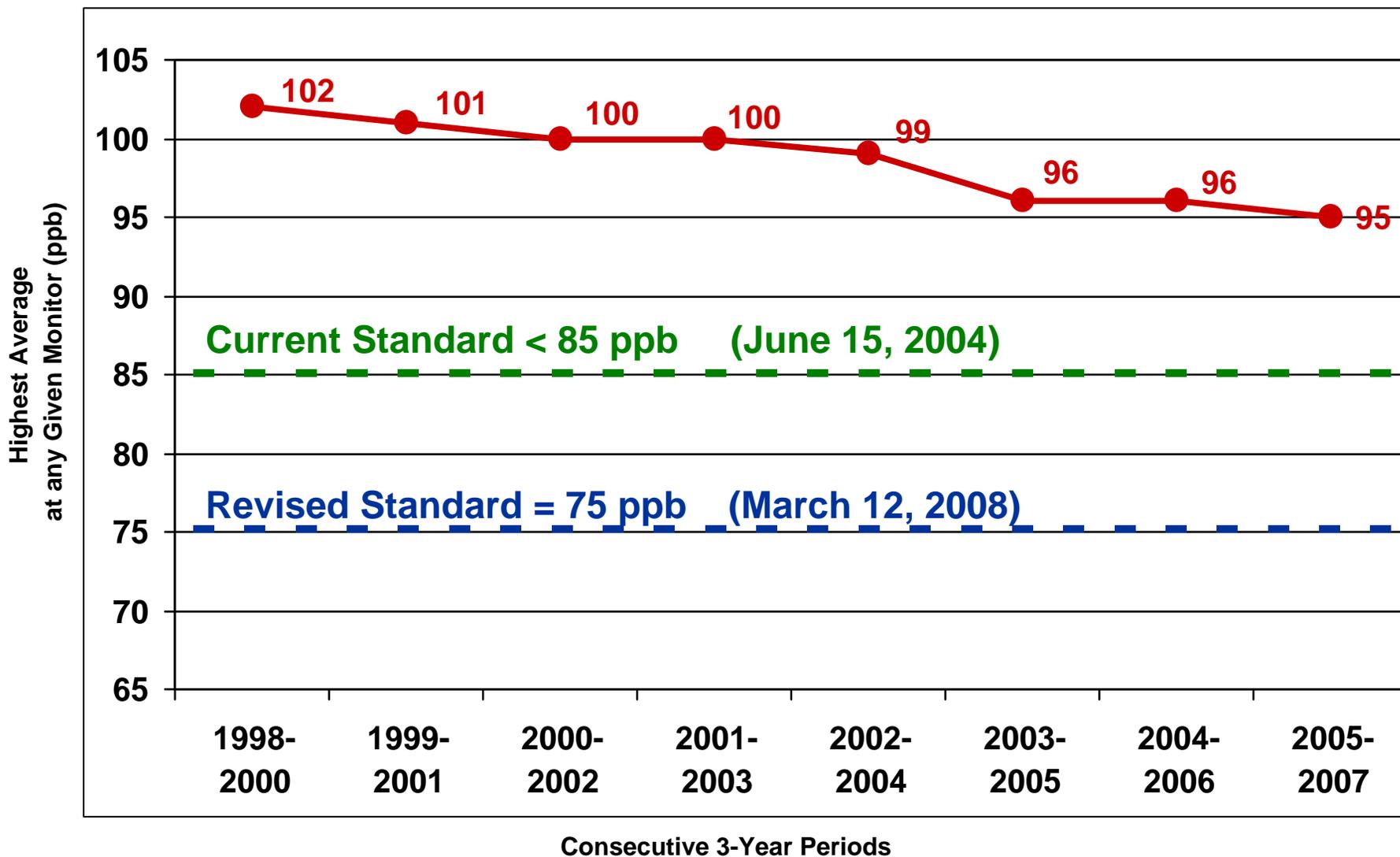
**Legend**

-  Counties Classified as Nonattainment Under Current Ozone Standard
-  Possible Additional Counties to be Classified as Nonattainment Under New Standard
-  Ozone Monitoring Sites



# 8-HOUR OZONE HISTORICAL TRENDS\*

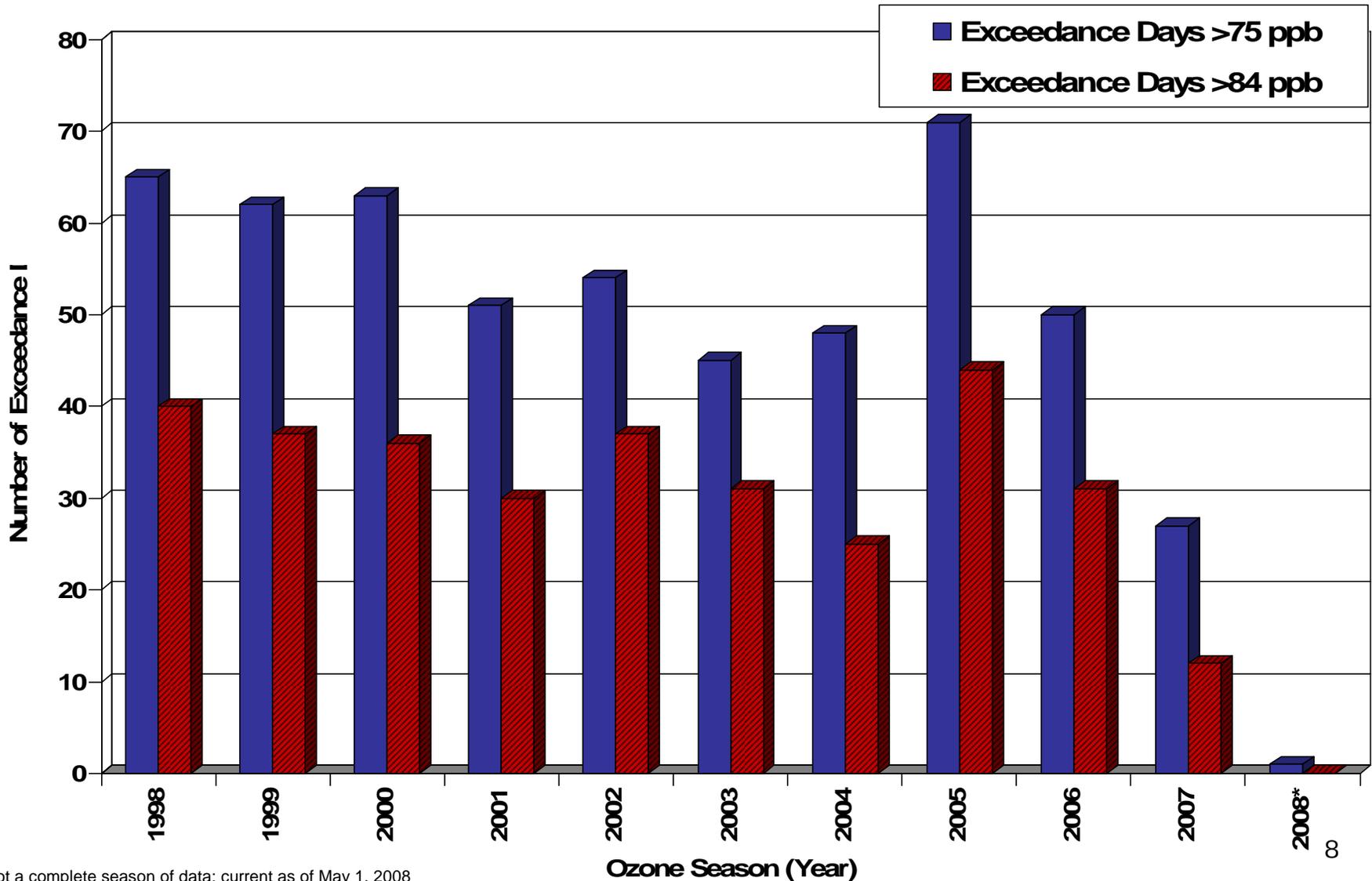
## DFW Nonattainment Area



\* 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).

# EPA REVISED OZONE STANDARD

## 8-Hour Ozone Exceedance Days



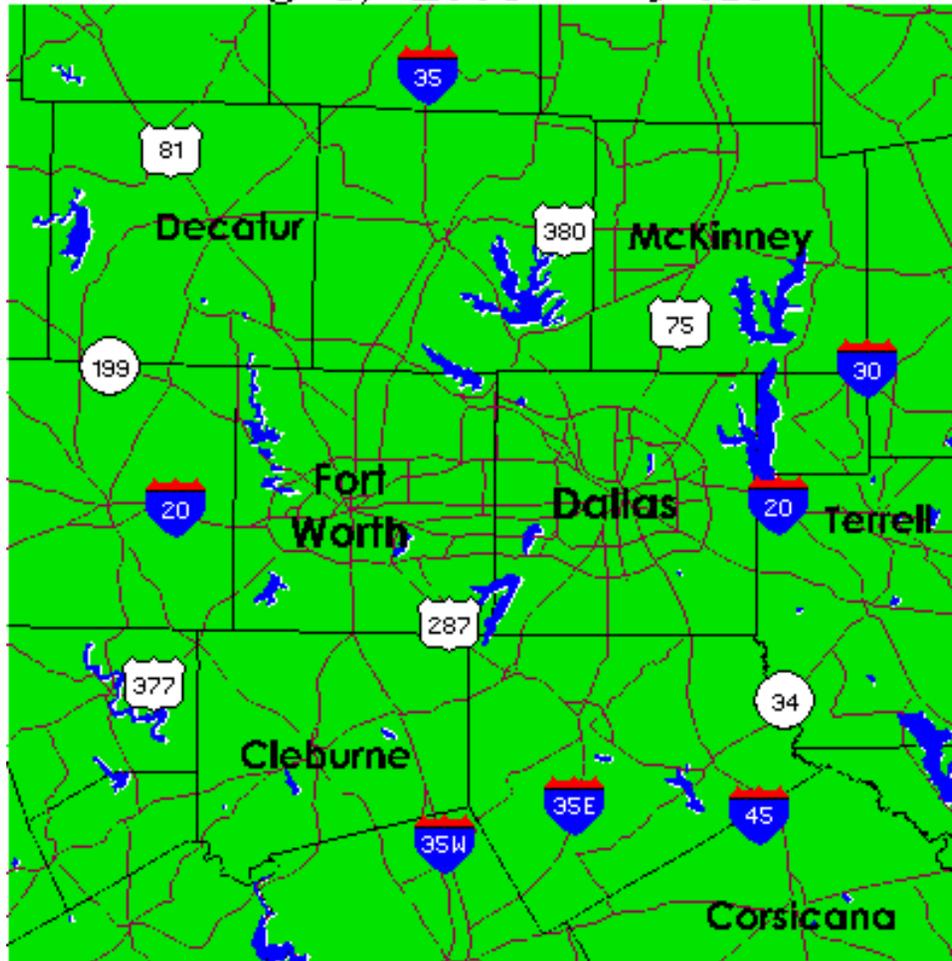
\* Not a complete season of data; current as of May 1, 2008  
ppb = parts per billion  
Exceedance Level indicates daily maximum 8-hour average ozone concentration.

Source: Texas Commission on Environmental Quality  
[www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr\\_exceed.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_exceed.pl)

# HIGHEST 8-HOUR OZONE LEVEL IN 2008

Maximum Daily 8-Hour Average was 98 ppb on August 4, 2008

North-Central Texas  
Aug 4, 2008 9 AM



## Air Quality



\*Orange means that the hourly average is greater than 90 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**

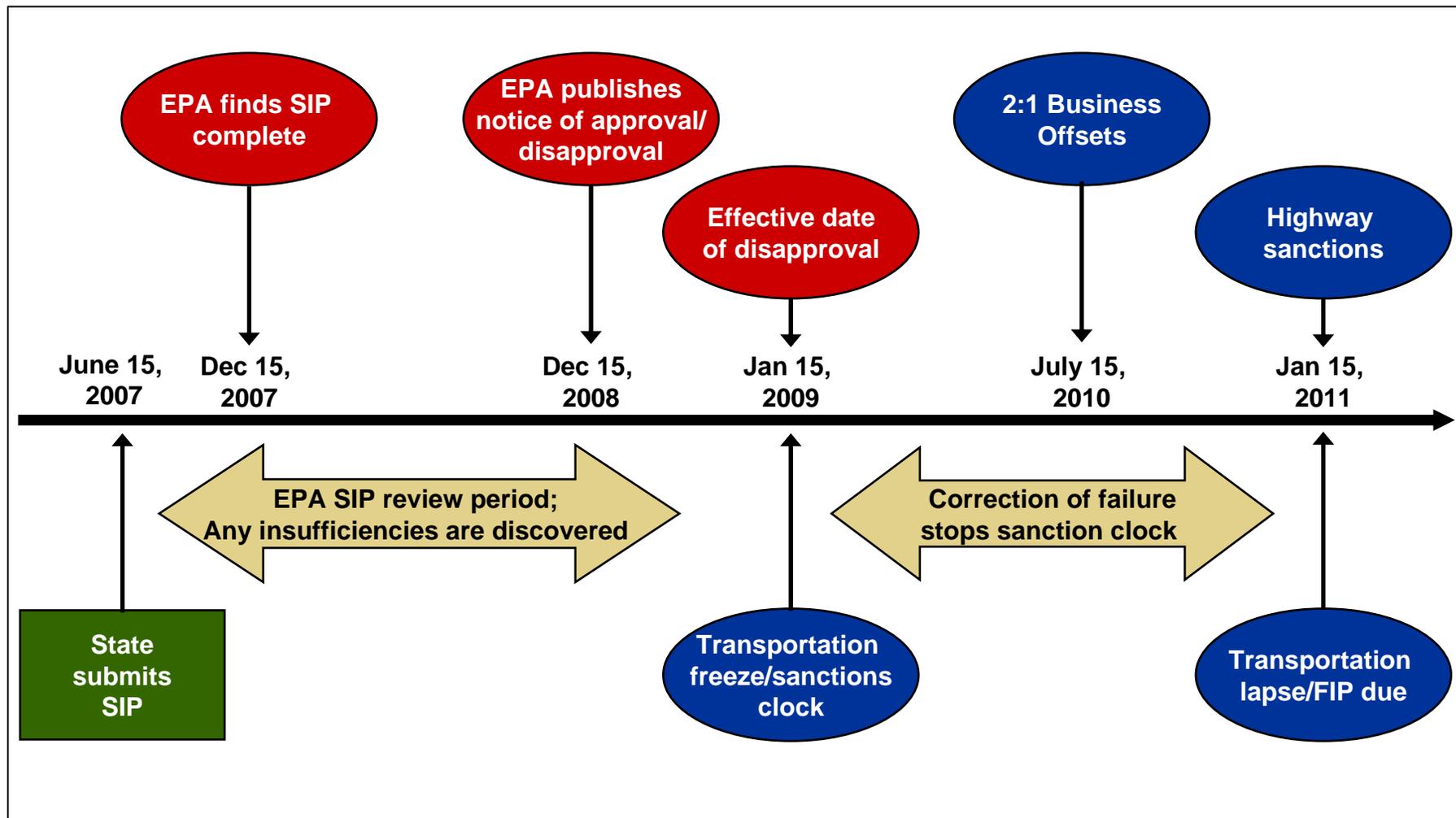
**Benefits are likely greater than costs:**

**Estimated Health Benefits in 2020 is \$2-\$19 billion**

**Estimated Cost of Implementation is \$7.6-\$8.5 billion**

# STATE IMPLEMENTATION PLAN

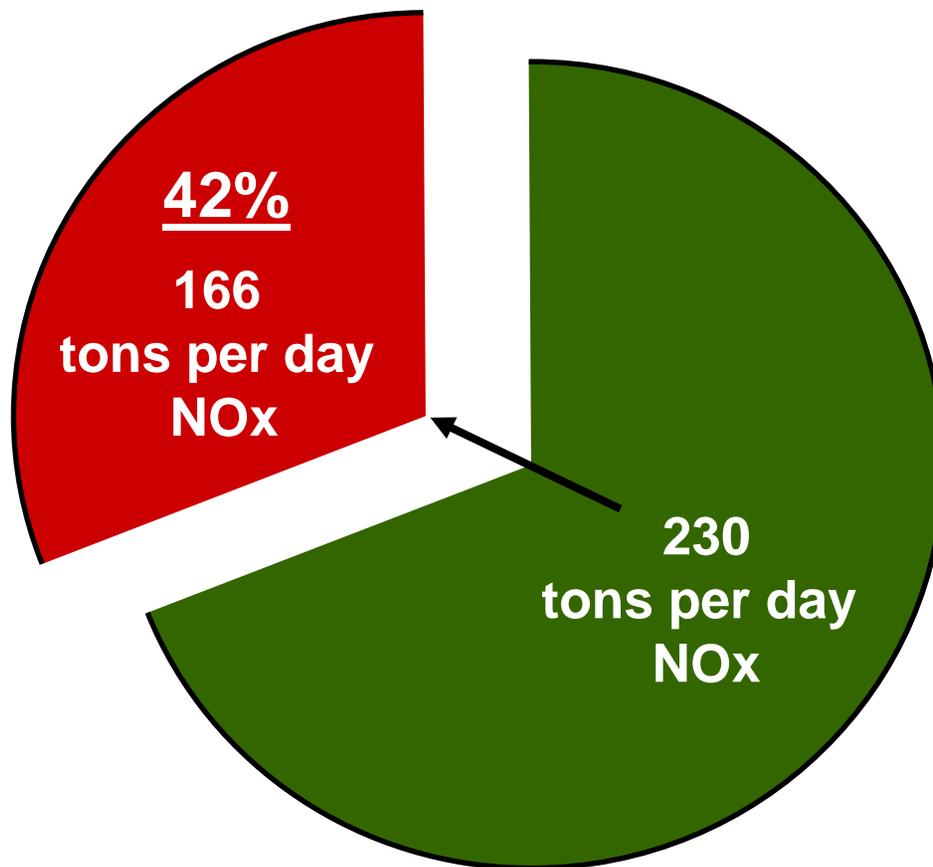
## Dallas-Fort Worth Timeline



# DFW NONATTAINMENT AREA

## 2009 Nitrogen Oxide (NOx) Reduction Required

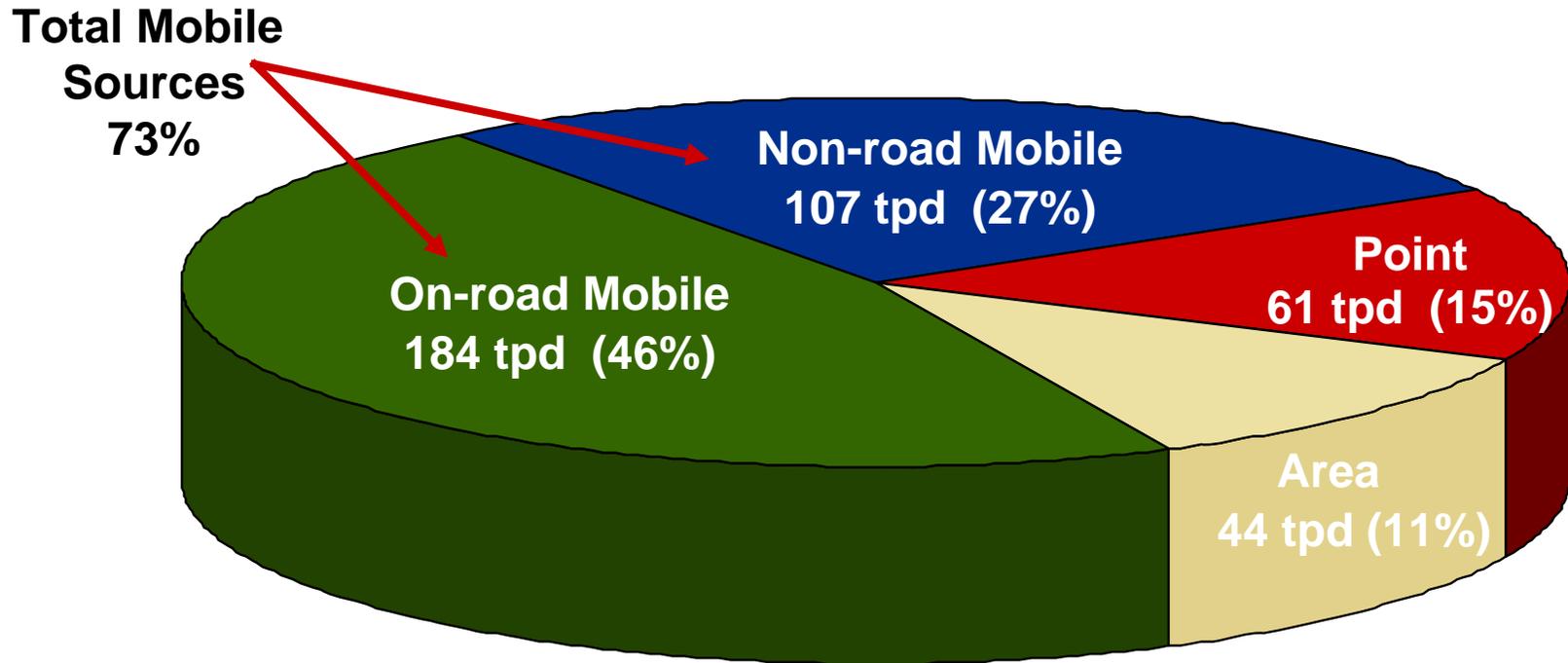
Total Anthropogenic NOx = 396 Tons Per Day



# 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 State Implementation Plan

### Transportation Control Measures

### NOx Benefit

<b>Bicycle/Pedestrian Projects</b>	<b>0.01 tpd</b>
<b>Grade Separation Projects</b>	<b>0.18 tpd</b>
<b>HOV/Managed Lane Projects</b>	<b>0.79 tpd</b>
<b>Intersection Improvement Projects</b>	<b>0.15 tpd</b>
<b>Park and Ride Improvement Projects</b>	<b>0.04 tpd</b>
<b>Rail Transit Projects</b>	<b>0.28 tpd</b>
<b>Vanpool Projects</b>	<b>0.08 tpd</b>
<b>Subtotal</b>	<b>1.53 tpd</b>

# DFW NONATTAINMENT AREA

## 8-Hour Ozone State Implementation Plan

<u>Voluntary Mobile Emission Reductions</u>	<u>NOx Benefit</u>
Clean Vehicle	0.24 tpd
Employee Trip Reduction	0.43 tpd
Locally Enforced Idling Restriction	0.62 tpd
Diesel Freight Idling Reduction	0.33 tpd
SmartWay Transport Demonstration Project	0.002 tpd
Policy for Construction Equipment	0.06 tpd
Aviation Efficiencies	0.95 tpd
<b>Subtotal</b>	<b>2.63 tpd</b>

# **DFW NONATTAINMENT AREA**

## **8-Hour Ozone Concentrations**

<b>2007 Regional Design Value</b>	<b>96 ppb</b>
<b>2009 Attainment Goal</b>	<b>85 ppb</b>
<b>2009 Modeled Design Value</b>	<b>88.7 ppb</b>
<b>Weight of Evidence Requirement</b>	<b><u>87.9 ppb</u></b>
<b>Difference</b>	<b>0.8 ppb</b>

**(1 ppb ozone ~ 20 tons NOx)**

# **DFW NONATTAINMENT AREA**

## **Transportation Conformity Analysis**

**Conducted on Local Level**

**Evaluates Latest Transportation System Updates**

**Compares Against State Air Quality Plan**

**Ensures System is Consistent with Air Quality Goals**

**If Successful, Transportation System can Proceed**

**If Fail, More Transportation System Modifications**

**Impacts \$400 Million In Transportation Projects**

# **DFW NONATTAINMENT AREA**

## **Transportation System Implementation Delays**

**Higher Costs of Construction**

**Unnecessary Levels of Traffic Congestion**

**Higher Frequency of Traffic Conflicts/Incidents**

**Increased Frustration**

**Lost Worker Productivity**

**Higher Sick, Out of Office Occurrences**

**Time is Money**

# **LOCAL AIR QUALITY PROGRAMS**

## **Clean Fleet Vehicle Policy**

**North Texas Green and Go Clean Taxi Partnership**

**Locally Enforced Idling Restrictions**

**AirCheckTexas Drive a Clean Machine Program**

**Regional Emissions Enforcement Program**

**Regional Smoking Vehicle Program**

**Air North Texas**

# **CLEAN FLEET VEHICLE POLICY BACKGROUND**

**Adopted by the Regional Transportation Council  
(RTC) on October 13, 2005**

**Adoption and Compliance Required for Vehicle  
Funding**

**May be Considered in Other Funding Requests**

**Promotes Low Emissions in all Aspects of Fleet**

**Management:**

**1.0 Acquisitions**

**2.0 Operations**

**3.0 Maintenance**

**4.0 Compliance**

**5.0 Verification**

# **BENEFITS OF POLICY ADOPTION**

## **To Region**

**Improved Air Quality**

**Consistent Goals Across Fleets**

**Greater Understanding of Fleet Impact**

**Lower-Emitting Fleet Vehicles**

## **To Adopting Entity**

**Eligibility for Vehicle Funding Programs**

**Positive Impact on Evaluation in Other RTC**

**Funding Programs (e.g. RTR Initiative)**

**Positive Impact on Air Quality**

**Shared Knowledge**

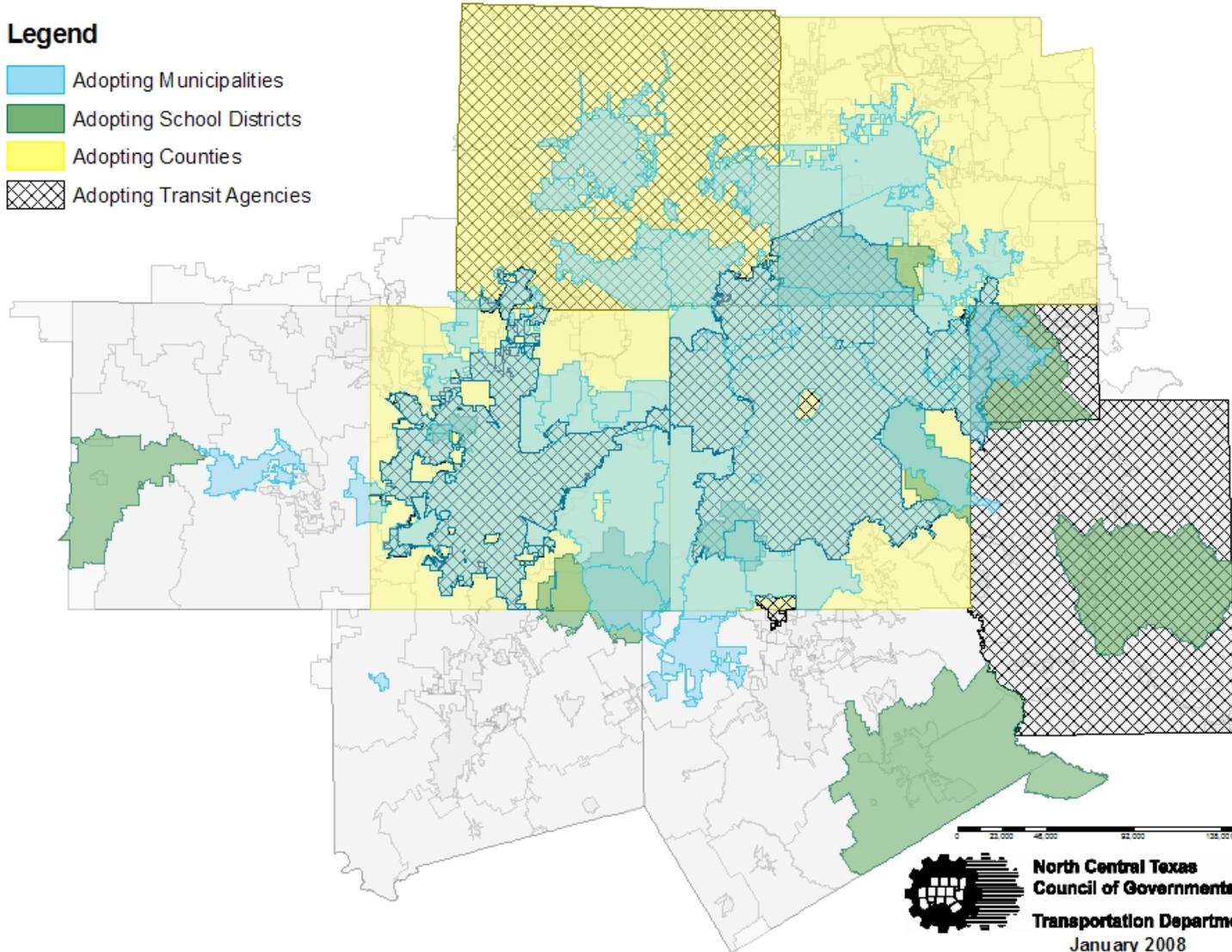
**Public Recognition**

# WHO HAS ADOPTED THE POLICY?

Current Adoption Status of RTC Clean Fleet Vehicle Policy

**Legend**

- Adopting Municipalities
- Adopting School Districts
- Adopting Counties
- Adopting Transit Agencies



# **LOCAL AIR QUALITY PROGRAMS**

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# **North Texas Green & Go Clean Taxi Partnership**

## **Dallas Sustainable Skylines Initiative**

### **Program Goal**

**Facilitate Replacement of Taxicabs with Green Vehicle Options in the North Central Texas Region**

### **Program Partners**

**City of Dallas**

**City of Fort Worth**

**Dallas-Fort Worth International Airport**

**EPA Office of Air Quality Policy and Standards**

**EPA Office of Transportation and Air Quality**

**EPA Region 6**

**North Central Texas Council of Governments**

**Texas Commission on Environmental Quality**

**The Sue Pope Fund**

# **North Texas Green & Go Clean Taxi Partnership**

## **Current Taxi Fleet in the Dallas-Fort Worth Region**

**Numerous Vehicles (~2,500 Taxicabs in Region)**

**Used Vehicles Purchased with Cash (50,000-70,000 miles)**

**High Mileage (60,000-80,000 Miles Per Year)**

**Fuel Consumed (6.8-9.1 Million Gallons Per Year)**

**Nitrogen Oxide Emissions (~50 tons Per Year)**

**Congested Driving Conditions in Metroplex**

# North Texas Green & Go Clean Taxi Partnership



## Marketing:

**Green Regulated Fleet Branding**

**In-Airport/Convention Center/Hotel Advertising**

**Business Card Logo Usage**

**Preferred Service Provider of Area Businesses**

**Guaranteed Ride Home**

**Press Coverage/Green Regulated Fleet Recognition**

**Public Outreach Services**

**Educational Pieces for Fleets**

# **LOCAL AIR QUALITY PROGRAMS**

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**Air North Texas**

# **LOCALLY ENFORCED IDLING RESTRICTIONS**

**Applicability (TAC Title 30 Ch 114)**

**Motor Vehicles with a Gross Vehicle Weight  
Rating of 14,000 Pounds or Greater, i.e.:**

**Flat Bed, Stake Trucks, Step Vans, Utility Trucks,  
Dump, Garbage, Fuel and Beverage Delivery Trucks,  
Tractor-Trailer Trucks, School and Transit Buses**

**Only Within a Jurisdiction of a Local Government  
That Has Signed a Memorandum of Agreement  
with TCEQ to Delegate Enforcement of the  
Provisions to That Local Government**

**Jurisdiction-By-Jurisdiction Adoption Required**

# **LOCALLY ENFORCED IDLING RESTRICTIONS**

**Control Requirements (TAC Title 30 Ch 114)**

**The Primary Propulsion Engine of a Motor Vehicle  
May Not Idle for More than Five Minutes When  
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**

**Within Two-Mile Radius of an Electrified Truck Stop**

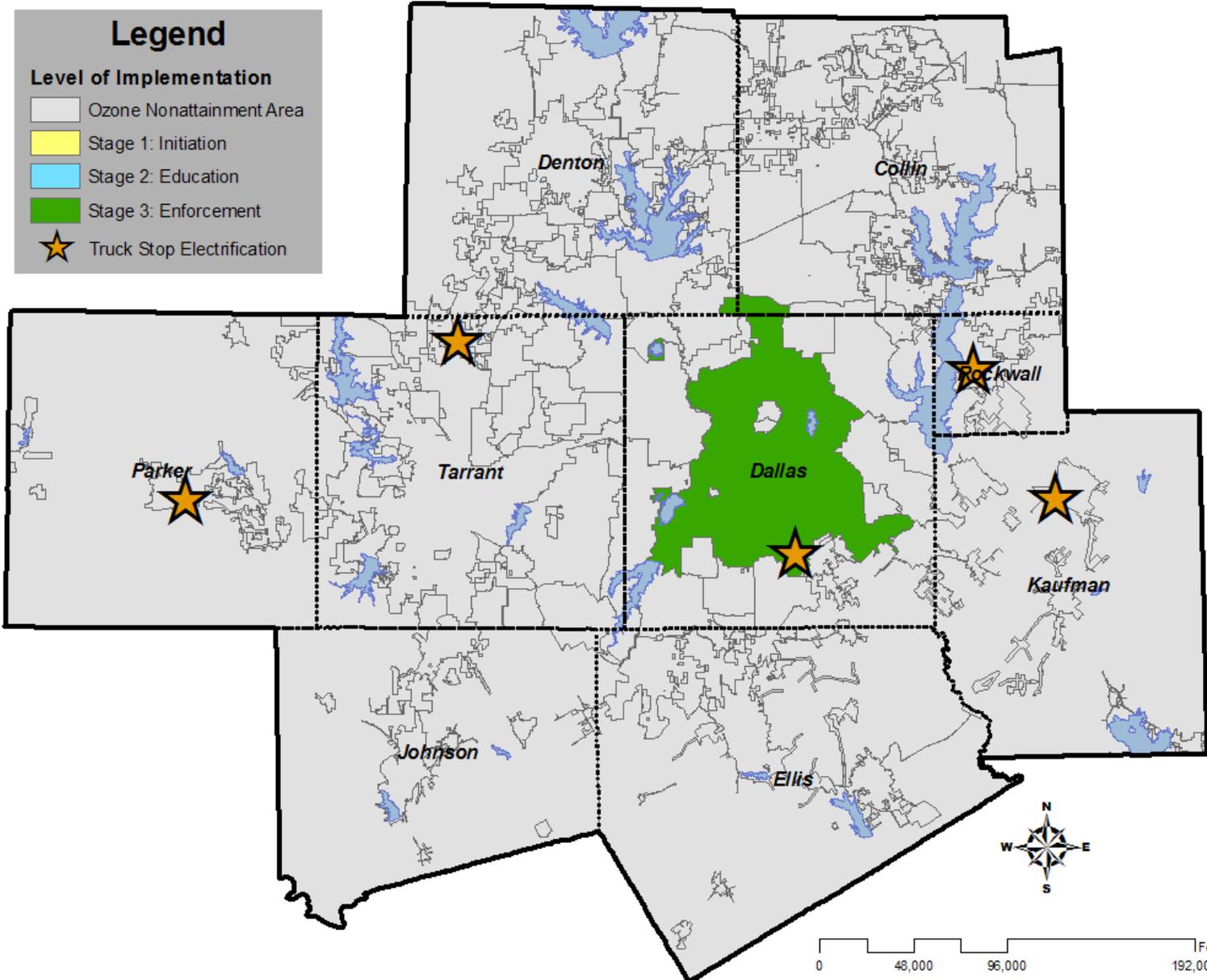
# LOCALLY ENFORCED IDLING RESTRICTIONS

## Local Government Adoption in North Texas

**Legend**

**Level of Implementation**

- Ozone Nonattainment Area
- Stage 1: Initiation
- Stage 2: Education
- Stage 3: Enforcement
- Truck Stop Electrification



# **LOCAL AIR QUALITY PROGRAMS**

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**Air North Texas**

# **AirCheckTexas Drive a Clean Machine Program Application Information**

## **For the Current Program Year:**

**\$21 Million in Funding for Assistance**

**Applications Accepted on August 18, 2008**

## **How to Apply:**

**Online at [www.nctcog.org/airchecktexas](http://www.nctcog.org/airchecktexas)**

**Kiosks at Participating Dealerships**

## **Send Application and Income Documentation:**

**By Fax: (817) 608-2315**

**By Mail: AirCheckTexas Program**

**P.O. Box 5888**

**Arlington, TX 76005-5888**

# **AirCheckTexas Drive a Clean Machine**

## **Dallas-Fort Worth Statistics**

**December 12, 2007 through July 3, 2008**

**21,125 Number of Applications Processed**

**11,477 Number of Replacement Vouchers Issued**

**7,038 Number of Replacement Vouchers Redeemed**

**1,453 Number of Repair Vouchers Issued**

**1,162 Number of Repair Vouchers Redeemed**

**505 Participating Automobile Dealerships**

**195 Participating Repair Facilities**

# **LOCAL AIR QUALITY PROGRAMS**

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**Air North Texas**

# **REGIONAL EMISSIONS ENFORCEMENT PROGRAM**

**Traffic Enforcement Using Databases and Training  
Participating Law Enforcement Officials**

**State Inspection Records for Nine-County  
Nonattainment Area in North Texas**

**Over 21 Million Records Updated Weekly**

**Internet-based, Password Protected and Available to  
Law Enforcement Agencies 24/7**

**Conducting Covert Operations On Stations And  
Inspectors Performing Clean Scans, Clean Pipes,  
And Improper Inspections**

**Prosecuting Dealers And Manufacturers Of  
Fictitious/Counterfeit Inspection Certificates**

# **LOCAL AIR QUALITY PROGRAMS**

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**Regional Smoking Vehicle Program**

**Air North Texas**

# **REGIONAL SMOKING VEHICLE PROGRAM**

**Don't Choke, Call #SMOKE**

## **Reporting Methods**

**Online at [www.smokingvehicle.net](http://www.smokingvehicle.net)**

**#SMOKE (#76653) From Your Wireless Phone**

**817-704-2522 From a Landline Phone**

## **Local Solutions**

**AirCheckTexas Drive a Clean Machine Program**

**Coupons/Rebates For Automotive Parts**

## **Successes**

**Received Over 6,800 Notifications in First Year**

# **LOCAL AIR QUALITY PROGRAMS**

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**Air North Texas**

# **AIR NORTH TEXAS**

## **Mission Statement**

**A voluntary effort and a creative platform to develop a regional brand and voice to generate public awareness that will foster behavioral changes in the community to help improve air quality.**

**An all-inclusive branding effort that will serve to bridge all air quality programs into one comprehensive and versatile initiative.**

# **AIR NORTH TEXAS**

## **Air Quality Public Relations Task Force**

**The Task Force was formed to encourage public participation and support of key elements in the State Implementation Plan and other air quality improvement strategies.**

**Efforts targeted to the general public include, but are not limited to:**

- Regional Air Quality Branding Campaign Implementation**
- Regional Partner Coordination**
- Public Education Collateral Development and Creation**
- Graphic, educational and information services support to local governments**

# AIR NORTH TEXAS

## Regional Brand



**Go Green. Breathe Clean.**

# AIR NORTH TEXAS

## Charter Partners

**American Lung Association**

**Ask Me About Green**

**City of Dallas**

**City of Denton**

**City of Fort Worth**

**City of Plano**

**Dallas Area Rapid Transit**

**Denton County Transportation  
Authority**

**City of Mesquite**

**North Texas Clean Air Coalition**

**Parker County**

**Tarrant County**

**The T**

**Texas Department of Transportation  
– Dallas**

**Texas Department of Transportation  
– Fort Worth**

**The University of Texas at Arlington**

**The US Green Building Council –  
North Texas Chapter**

# AIR NORTH TEXAS

## Public Awareness Campaign Elements

### Sample Print Advertising Collateral

**clean air for all**

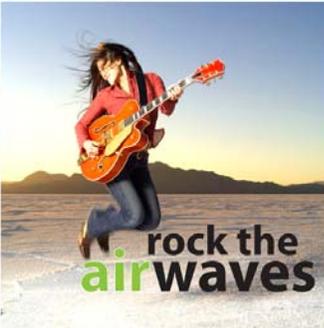


go green. breathe clean. your logo here

Let's face it, we all want the same thing - clean air. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean a breeze. Sign up today with Air North Texas to become a face of change in air quality.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

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



**rock the airwaves**

go green. breathe clean. your logo here

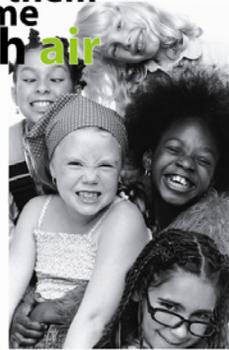
It takes a lot of work to be a rock star... just like it will take a lot of work to clean up the air. With your help and with the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean as cool and fun as rock and roll. After all, everyone needs clean air, even rock stars!

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

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



**give them some fresh air**



go green. breathe clean. your logo here

No one likes being stuck indoors, especially kids. But when air is bad, being indoors is the only place a kid should be. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean a kid's play. Sign up today with Air North Texas and expand your kid's playground.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

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



**indoor despair**



go green. breathe clean. your logo here

Being outside is the last place anyone should be when air quality is bad. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean a breeze. Sign up today with Air North Texas to become a face of change in air quality.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

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



**enjoy nature's air conditioning**



go green. breathe clean. your logo here

Nothing's better than nature's air conditioning. But the air isn't as clean as it could be. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean a breeze. Sign up today with Air North Texas to become a face of change in air quality.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

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



# AIR NORTH TEXAS

## Public Awareness Campaign Elements

### Refueling Station Ads

chatroom\_ad1 7/18/09 4:03 PM Page 1

**If you want to help clean the air,  
join a chat room.**

Sharing rides to work and school saves gasoline, reduces emissions and gives you a chance to chat the old fashioned way. And that's not a lot of hot air.

For more tips on how you can do your part click on [airnorthtexas.org](http://airnorthtexas.org).



rush\_ad12 7/18/09 4:03 PM Page 1

**Don't be in such a rush.**

The faster you go the more gas you use and the more emissions you create. So get your foot off the gas; it's the only slow approach to clean air we endorse.

For more tips on how you can do your part click on [airnorthtexas.org](http://airnorthtexas.org).



errand\_ad10 7/18/09 4:03 PM Page 1

**Running errands all day  
is hard on your lungs.**

By combining all your errands into a single trip you use less gas, get everything done more quickly and release fewer emissions into the air. So your lungs can take a little breather.

For more tips on how you can do your part click on [airnorthtexas.org](http://airnorthtexas.org).



inflation\_ad10 7/18/09 4:03 PM Page 1

**When it comes to our air,  
inflation is a good thing.**

By keeping your tires properly inflated you'll increase gas mileage, decrease your emissions and save money. And that's a very good thing.

For more tips on how you can do your part click on [airnorthtexas.org](http://airnorthtexas.org).



# AIR NORTH TEXAS

## Public Awareness Campaign Elements

Campaign Web site

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

The screenshot displays the Air North Texas website interface. At the top left is the logo, a blue circle with three wavy lines and the text "air northtexas". To its right is the slogan "go green breathe clean" in green and yellow, with "a campaign for clean air" below it. A search bar with a "go" button is in the top right. A vertical navigation menu on the left lists: home, about us, partners, individuals, businesses, air facts, just for kids, links & resources, air quality index, biking/waking routes, commute info, and report smoking vehicles. The main content area features three large images with text overlays: 1) Children playing catch with a dog, text: "playing catch outside is so much more fun"; 2) A woman biking, text: "bike it you might like it"; 3) A red car on a road, text: "maintain your car breathe better". A "welcome to air north texas" section contains introductory text and the slogan. A "think . share . connect ." section provides details on how to get involved. A footer at the bottom lists "contact us", "faqs", "join us", and "events".

air northtexas

go green  
breathe clean  
a campaign for clean air

search  go

home  
about us  
partners  
individuals  
businesses  
air facts  
just for kids  
links & resources

air quality index  
biking/waking routes  
commute info  
report smoking vehicles

welcome to air north texas

Did you know that cleaning the air we breathe is a lot easier than we think? Small changes can make big improvements in our air and benefit our health at the same time.

**Air North Texas** is here to provide information and resources to many simple, daily actions you can take to help and be a part of the campaign for cleaner air. Together, we can **go green, breathe clean.**

playing catch  
outside  
is so much  
more fun

bike it  
you might like it

think . share . connect .

Kick back, hang out, feel free to surf and browse our Web site. Learn more about simple daily actions you can adopt to improve air quality. Here's one: how about combining your errands into one quick trip-- you save on gas, time, and you're helping the air.

While you're here, why not **sign up** to become a part of the Air North Texas' campaign for clean air. Everyone including individuals, organizations, even kids can join. Get connected. Join us.

maintain your car  
breathe better

contact us | faqs | join us | events

# AIR NORTH TEXAS

## Public Awareness Campaign Elements

### Other Advertising and Marketing Avenues

The Dallas Morning News

The Fort Worth Star-Telegram



# Contacts

## Transportation and Air Quality Marketing Staff

**Mindy Mize**  
Program Manager  
Air Quality Planning and Operations  
(817) 608-2346  
[mmize@nctcog.org](mailto:mmize@nctcog.org)

**Wei Wei Cham**  
Transportation Planner  
Air Quality Planning and Operations  
(817) 608-2377  
[wwcham@nctcog.org](mailto:wwcham@nctcog.org)

[www.nctcog.org/trans/air](http://www.nctcog.org/trans/air)

**Pamela Burns**  
Communication Specialist  
Air Quality Planning and Operations  
(817) 704-2510  
[pburns@nctcog.org](mailto:pburns@nctcog.org)

**Sarah Engelhardt**  
Communication Specialist  
Air Quality Planning and Operations  
(817) 704-5606  
[sengelhardt@nctcog.org](mailto:sengelhardt@nctcog.org)