

OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

**North Texas Commission
Topic: North Texas**

June 10, 2015



**Chris Klaus, Senior Program Manager
Air Quality Planning & Operations
NCTCOG Transportation Department**

CLEAN AIR ACT

Clean Air Act (CAA) last amended in 1990

Requires Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants:

Carbon Monoxide (CO)

Lead (Pb)

Nitrogen Oxides (NO_x)

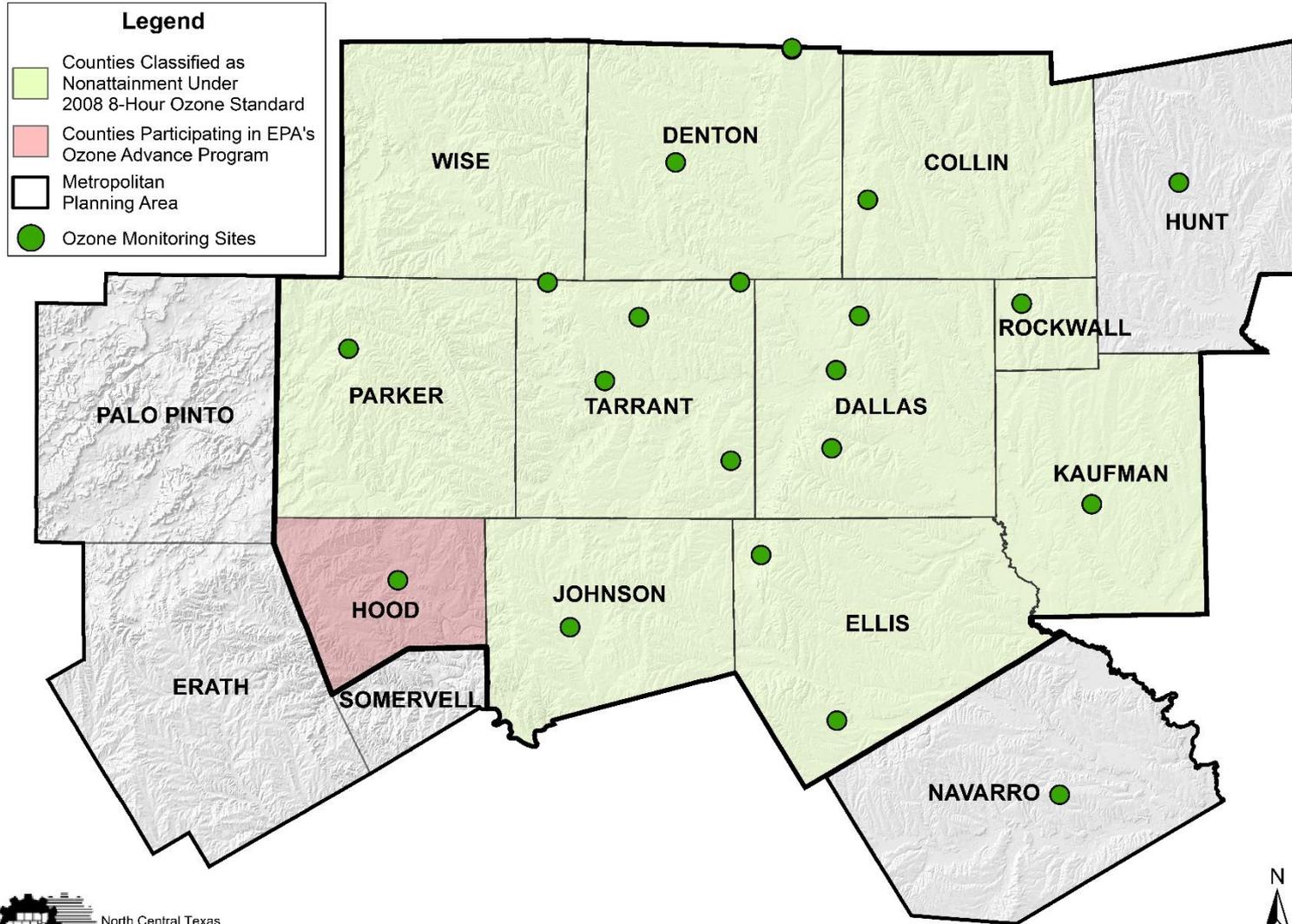
Ozone (O₃)

Particulate Matter (PM)

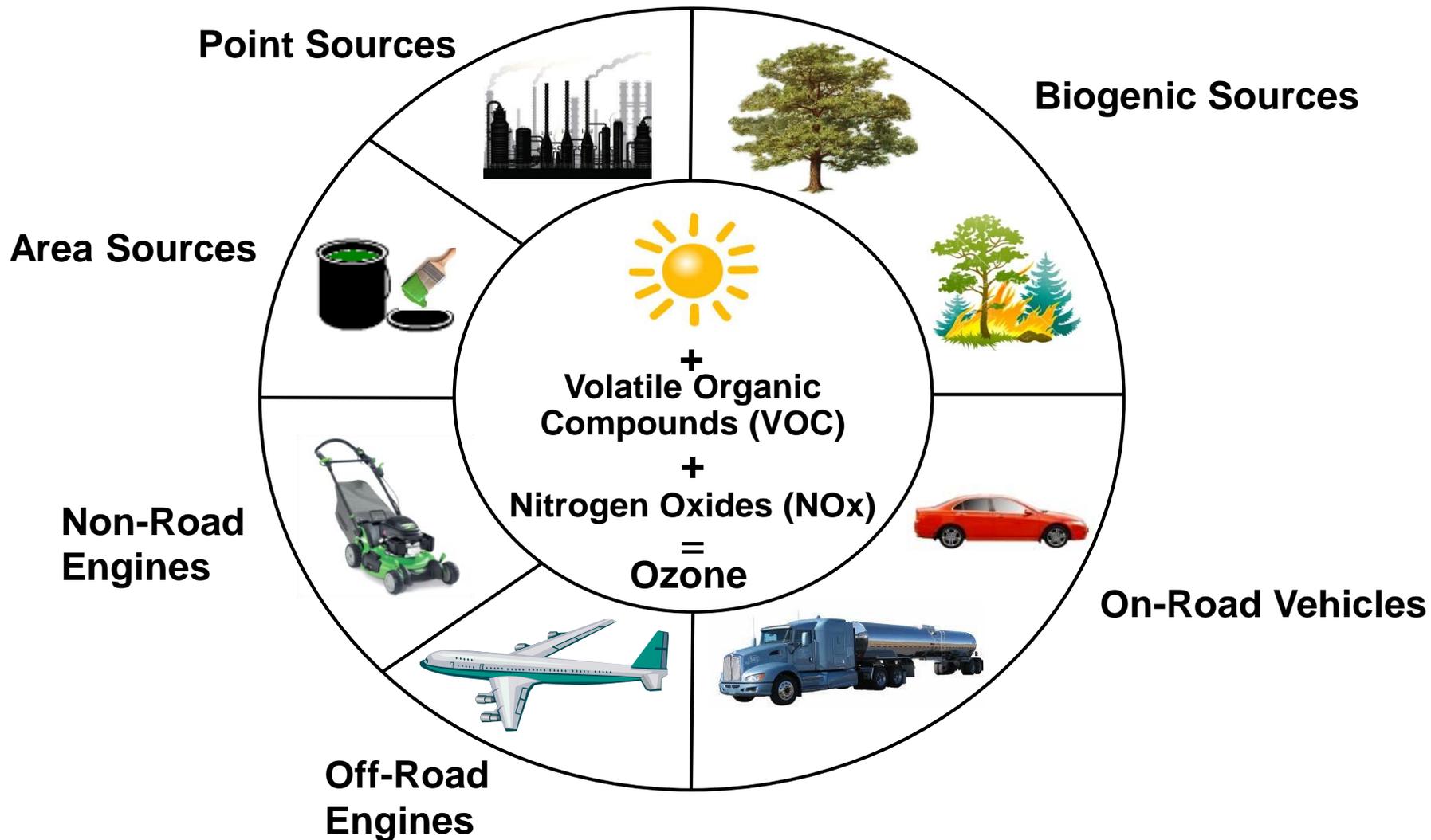
Sulfur Dioxide (SO₂)

EPA must complete a review of NAAQS every five years

NCTCOG PLANNING AREA



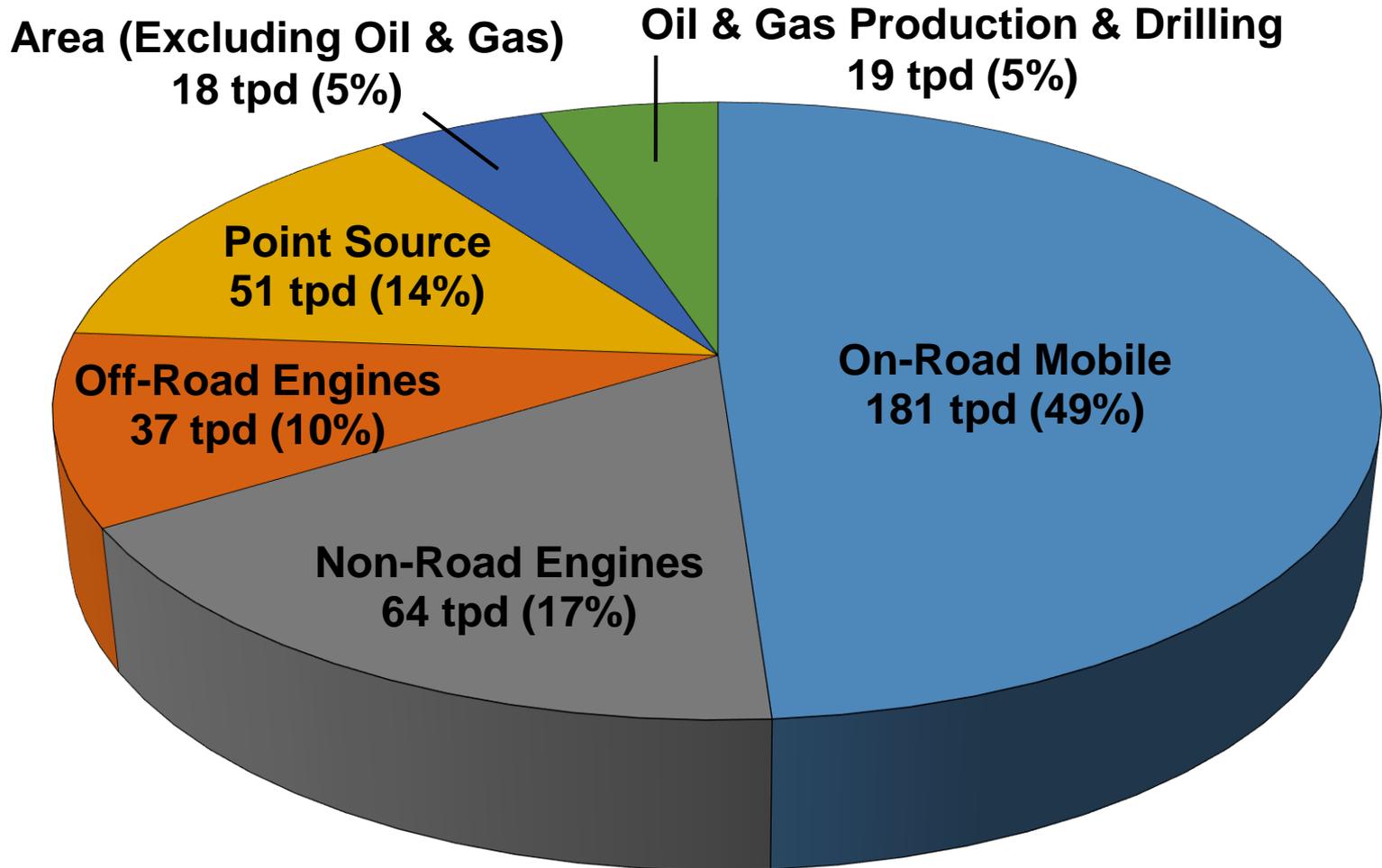
OZONE FORMATION



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

EMISSION SOURCES

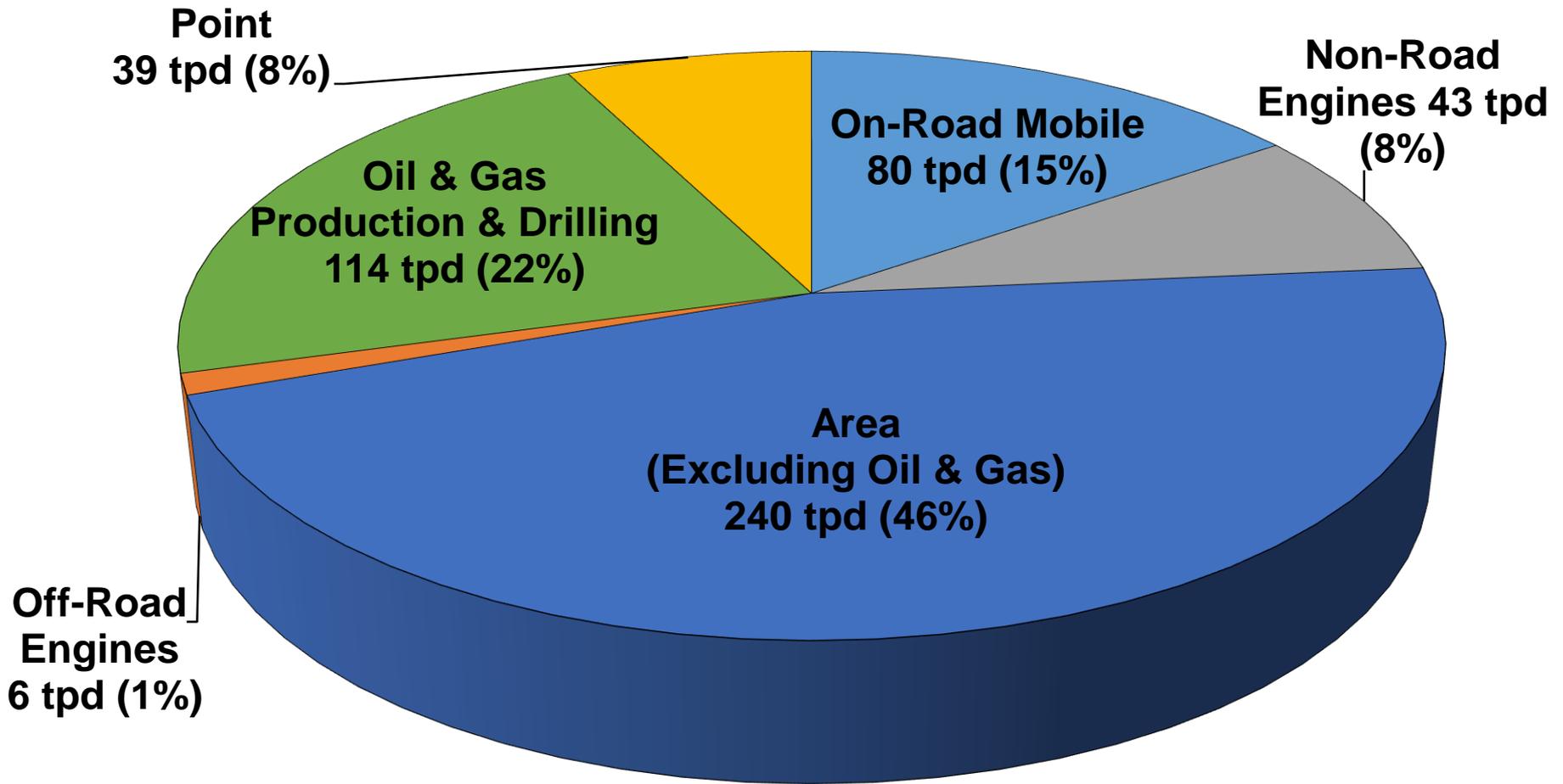
Oxides of Nitrogen (NO_x)



Total NO_x = 370 tons per day (tpd)

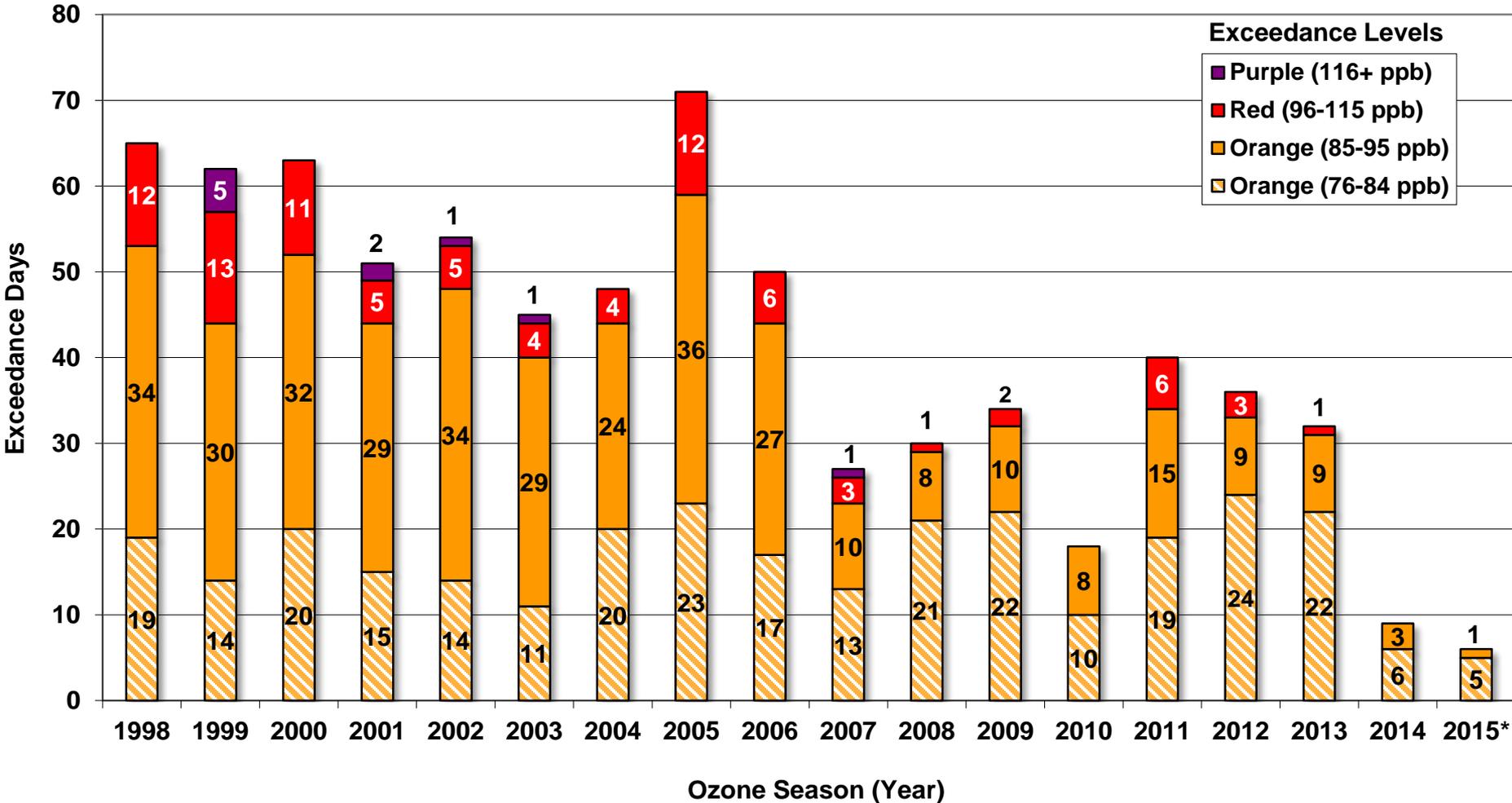
EMISSION SOURCES

Volatile Organic Compounds (VOC)



Total VOCs = 522 tons per day (tpd)

OZONE EXCEEDANCE DAYS



Ozone Season (Year)

Exceedance Level indicates daily maximum 8-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 75 ppb.

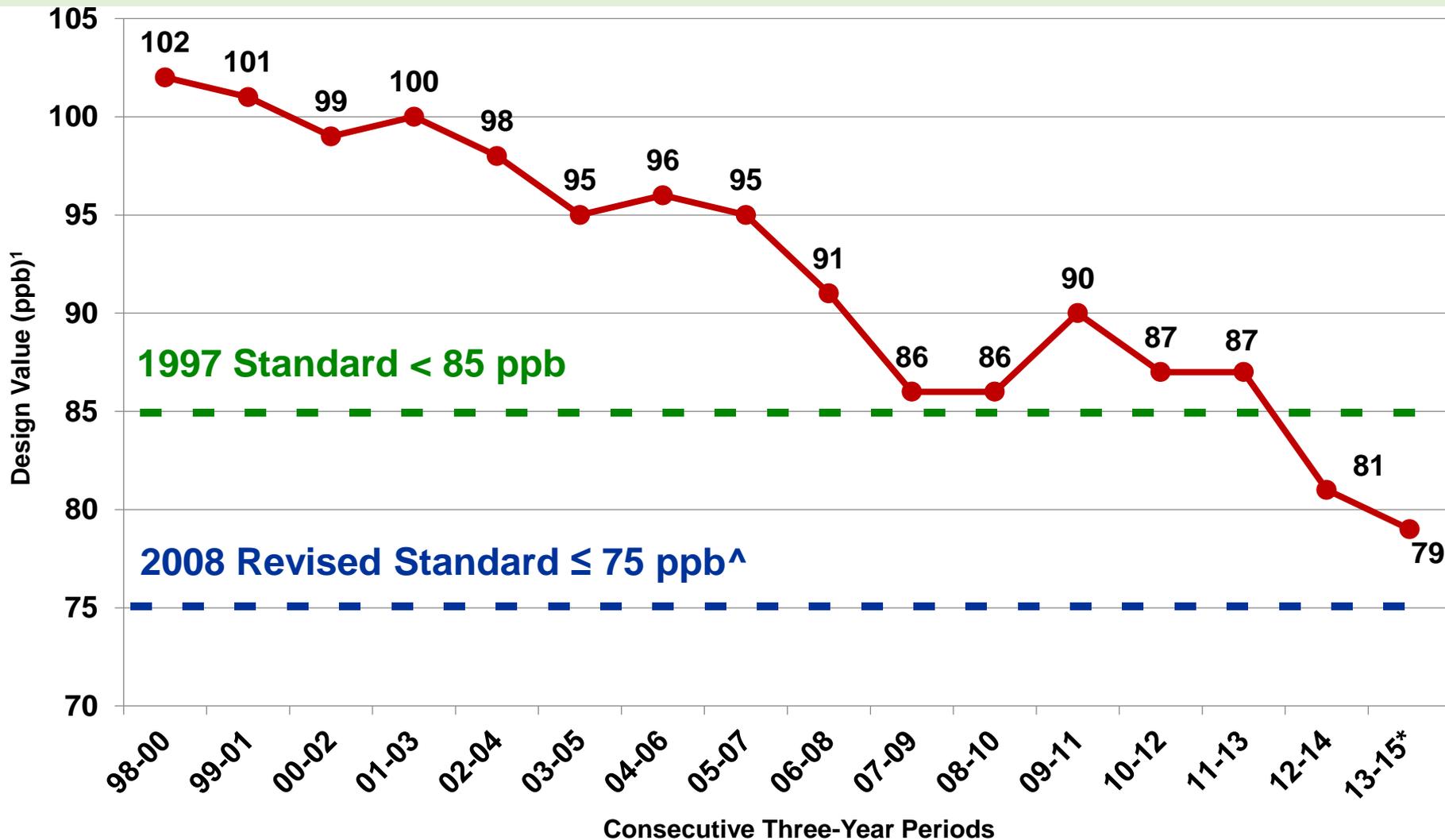
*Not a full year of data, current as of 6/07//2015

Note: The 2009-2013 data has been certified by TCEQ, and is currently undergoing review by the EPA for concurrence.

 = Additional level orange exceedance days under the revised standard that were not exceedances under the previous 84 ppb standard. (AQI level orange = 76-95 ppb)

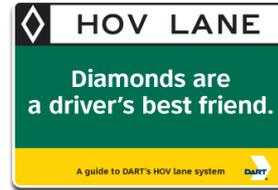
Source: TCEQ, http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl
ppb = parts per billion

HISTORICAL TRENDS IN OZONE



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 8-hour average ozone concentration) is equal to or less than 75 parts per billion (ppb).

REGIONAL TRANSPORTATION COUNCIL LOCAL AIR QUALITY PROGRAMS



AIR NORTH TEXAS

Program Description

A regional clean air partnership and campaign to:

Provide a comprehensive air quality resource and regional message.

Leverage resources and collaborate with regional partners.

Increase public awareness of specific opportunities for residents to make clean air choices.

NCTCOG Resources

Comprehensive Website, Including Current Ozone Conditions

Monthly Newsletter

Air Pollution Alerts for Ozone

Outreach and Advertising Campaign

Clean Air Action Day, June 26, 2015

How to Get Involved

Sign-up to Receive Monthly Newsletters and Alerts

Provide Messages and Alerts to your Employees

Participate in Air North Texas Activities

Promote Your Air Quality Improvements Online

www.airnorthtexas.org



be air aware

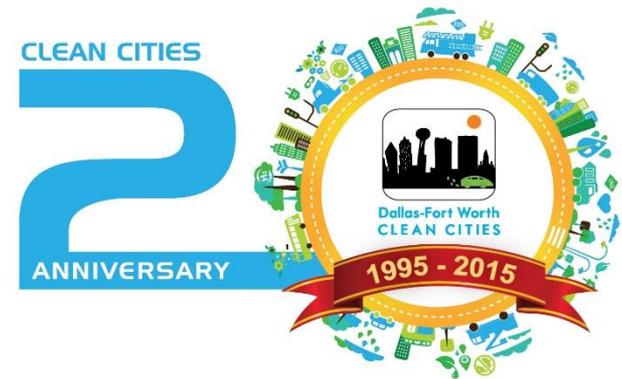
DALLAS- FORT WORTH CLEAN CITIES COALITION

Description

Created by the US Department of Energy, the Coalition provides information and education on alternative fuel and advanced technology vehicles, programs, and policies with a focus on petroleum reduction and air quality benefits.

NCTCOG Resources

- Comprehensive Website
- Vendor Directory
- Meetings/Trainings/Workshops
- Monthly Newsletter
- Video Success Stories
- Annual Report on Alternative Fuel Usage



How to Get Involved

- Become a Member and Participate in Annual Report
- Participate in One or More Alternative Fuel Subcommittees
- Sponsor the Coalition
- Attend Workshops and Trainings
- Sign-up for Monthly Newsletter and Informative Emails

www.dfwcleancities.org

THE NORTH TEXAS GREEN PARKING PROGRAM

Program Description

Created by the North Texas Commission, this program helps clean the air, promote clean vehicles, provides an incentive to those driving those vehicles, and allows buildings to earn credits toward LEED certification with free signage to designate parking space for alternative fuel vehicles (AFVs). An smartphone app was created to support this program through the North Texas Apps Challenge in 2014.

NCTCOG Resources

Website

Sign Art Work

Link to Approved Vehicles

How to Get Involved

Place Signs at Your Business

Promote Program Incentives to Employees and Customers

Use Smartphone App, Juxt, and Upload Photo and Information



ELECTRIC VEHICLES NORTH TEXAS (EVNT) & DOE WORKPLACE CHARGING CHALLENGE

Goal/Description

Promote Adoption & Use of Electric Vehicles (EVs)
by Offering On-site Charging at Places of Employment



NCTCOG Resources

EV Fact Sheet
Guide to Claiming EV Incentives
Upcoming Workshops & Meetings



How to Get Involved

Attend EVNT & DFW Clean Cities Meetings
Sign-up to Receive Email Announcements
Join the Workplace Charging Challenge
Install On-site Charging

www.dfwcleancities.org/evnt

ELECTRIC VEHICLES NORTH TEXAS (EVNT) & DOE WORKPLACE CHARGING CHALLENGE

Upcoming Event: Texas Triangle Workplace Charging Road Show

Who should attend

Managers, Planners, & Others Interested in Learning About EVs & Charging Stations for Their Workplace

Why should You Attend

Get a General Introduction to EVs & Charging Stations

Discover Available Resources

Learn How to Leverage as a Valuable Employee Incentive

Hear Best Practices

Meet Vendors & Test Drive EV Models

Dates & Locations

Monday, July 27 – Houston

Tuesday, July 28 – San Antonio

Wednesday, July 29 – Austin

Thursday, July 30 – Dallas Fort Worth

www.dfwcleancities.org/evnt



NORTH TEXAS GREEN AND GO

Goal/Description

Reduce Emissions from Tourism and Business
Travel and Facilitate Behind-the-Wheel
Experiences with SmartWay Elite Vehicles

NCTCOG Resources

Information to Identify “Green” Vehicles
Industry Contacts
Assistance with Participatory Events

How to Get Involved

Commit to Going “Green” for Vehicle Rentals, Company Cars
Host Employee “Ride and Drive,” “Lunch and Learn,” or Similar Events



CLEAN FLEET POLICY

Goal/Description

Reduce Emissions and Overall Fuel Consumption From Fleet Activities

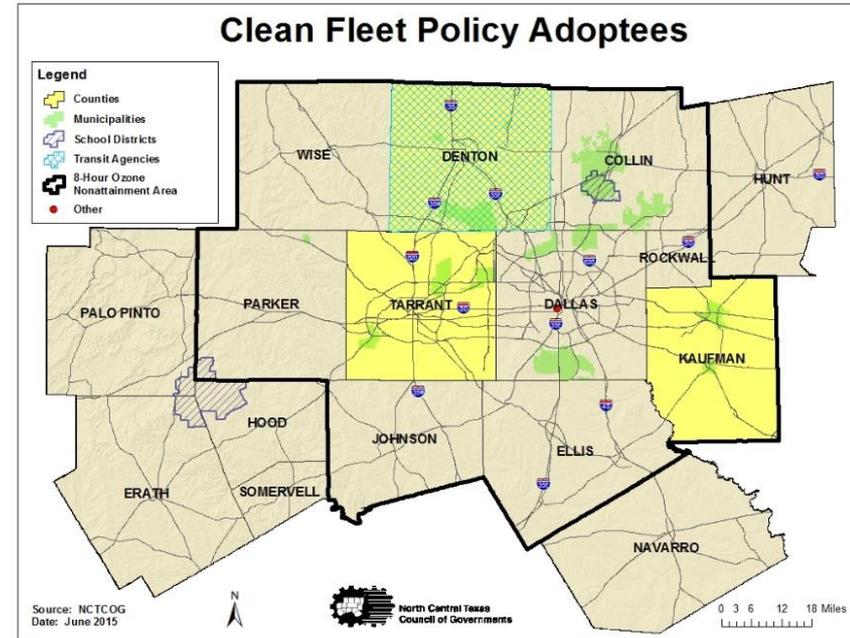
NCTCOG Resources

Funding Eligibility

Template Policy

Template Idle Reduction (IR) Policy Guidance

DFW Clean Cities Recognition Program



How to Get Involved

Adopt the Clean Fleet Policy and Submit to NCTCOG

Submit IR Policy/Standard Operating Procedure to NCTCOG

Become a DFW Clean Cities Coalition Stakeholder

Submit Annual Reports

ENGINE OFF NORTH TEXAS

Program Goals

Encourage Regional Idle Reduction by Promoting Idling Restrictions, Anti-Idling Policies, and Development of Outreach Materials for Idle Reduction Campaigns



NCTCOG Resources

Idling Complaint Hotline: 877-NTX-IDLE

Informational Brochures

Posters and Street Signs

How to Get Involved

Create No-Idle Zone

Report Idling Vehicles

Adopt Anti-Idling Measures for Own Fleet

Partner with City/County (if in Area with Idling Restrictions)

EPA SMARTWAY TRANSPORT PROGRAM

Program Goals

Reduce Fleet Emissions, Improve Fuel Economy, and Increase Energy Efficiency in the Freight Industry

NCTCOG Resources

Informational Factsheet
SmartWay Meetings or Webinars
Assistance with Identifying EPA Tools or
Joining as a Partner

How to Get Involved

Become a SmartWay Partner
Include SmartWay Partnership in Contracts/Purchasing
Purchase EPA SmartWay Verified Technologies and
SmartWay Certified Vehicles



SAVING MONEY AND REDUCING TRUCK EMISSIONS

Program Goals

Reduce Emissions and Fuel Costs in the Trucking Industry by Providing Outreach and Education on Regional Initiatives that Improve Efficiency

The logo for SMART (Saving Money and Reducing Truck Emissions) features the word "SMART" in a large, bold, black sans-serif font. Below the text are two horizontal blue bars of varying lengths, with the top bar being longer than the bottom bar. The bottom bar is positioned to the right of the word "SMART".

SMART

Saving Money and Reducing Truck Emissions

NCTCOG Resources

Informational Brochure
Driver, Fleet Manager and Vendor Information Folders
Meetings and Outreach Events
Individual Technology Assistance
Funding Assistance

How to Get Involved

Purchase Smartway Verified Technologies
Institute a Driver Training Program
Implement Clean Fleet Policy and Join DFW Clean Cities
Encourage Transportation Providers to Reach Out

www.nctcog.org/SMART

AIRCHECKTEXAS DRIVE A CLEAN MACHINE



Program Goals

Offers Financial Assistance to Low-Moderate Income Vehicle Owners Whose Vehicles Fail Emissions Inspection Test
Helps Vehicle Owners Comply with Vehicle Emissions Standards to Reduce Ozone-Forming Pollutants Created by On-Road Motor Vehicles
Targets the Highest Polluting Vehicles and Provides an Incentive for Citizens to Contribute to the Regional Air Quality Solution

NCTCOG Resources

Program Applications, Informational Brochure, Banners

How to Get Involved

Place Applications at Business
Promote Program Assistance



www.nctcog.org/airchecktexas

AIR QUALITY FUNDING OPPORTUNITIES

NCTCOG Assistance Available Funding Help Completing Applications

transportation
Home > Transportation > Air Quality > Clean Vehicle

Transportation and Air Quality Funding Resources

Funding programs that address air quality, such as clean vehicle projects, are available from a number of Federal, State, local, and non-profit entities. This site provides links to various current and recurring grant opportunities and incentives for clean technology and infrastructure. It provides information that is helpful once you have received grant funding through NCTCOG.

Looking for Grant Funding?

2015 Clean Diesel Call for Partners

Vehicle Funding Opportunities

Other Air Quality Funding Opportunities

Funding Opportunity Archive

Sign-Up for Email Updates

Already received Grant Funding from NCTCOG?

Agreements & Forms

Usage Reporting

Current Vehicle Grant Funding Opportunities											
	Eligible Focus Areas										
	Heavy-Duty Vehicles					Light-Duty Vehicles					
	Application Deadline	School Buses	Oil and Gas Vehicles/Equipment	Long Haul Trucks	Dump Trucks	Other	Idle-Reduction Technology	Passenger Vehicles	Taxis	Idle-Reduction Technology	Eligible Applicant Type
AirCheckTexas Drive a Clean Machine Program	Open							X			PC
NEW - Clean Diesel Funding Assistance Program	Open until 06/15/15	X	X	X	X	X	X				PB
Drayage Loan Program	FCFS		X				X				PV
Federal and State Incentives and Laws (Including Tax Credits)	Open	X	X	X	X		X	X	X		PV
Light-Duty Motor Vehicle Purchase or Lease Incentive (LDLPI) Program	FCFS until 06/26/15							X	X		PB, PV, PC
NEW - NCTCOG 2015 Clean Diesel Call for Partners	06/05/15		X	X	X	X	X				PB, PV, PC
Propane Vehicle Incentives for Texas	FCFS	X	X		X	X		X	X		PB, PV

FCFS = First-Come, First-Served; PB = Public Sector; PV = Private Sector; PC = Private Citizens; TBD= To Be Determined

Employer Trip Reduction (ETR) Program

Overview

A Voluntary Educational Program that Targets Vehicle Trips of Employees in North Central Texas

Aimed at Reducing the Number of Vehicles on the Road and Improving Air Quality

Promotes Alternatives to Driving Alone on Commute Trips

Alternatives include carpooling, vanpooling, telecommuting, flexible work hour programs, transit pass subsidies, biking and walking

NCTCOG Staff Available for Employee Information Sessions, Lunch and Learns, Program Development and Setup, Training, and Program Maintenance

Resources

ETR Employer Manual for North Texas in development

A guide to alternative commuting, employer programs, rewards, and more

Get Involved

Contact Tori Wilson at (817) 695-9249 or twilson@nctcog.org for Details

Try Parking It Website

Overview

Regional Commuter Tracking and Ride-Matching System for North Central Texas
Self-Reporting by Individual Commuters

Site Features

Carpool and Vanpool Ride-Matching

Coming Soon – Transit, Walking, and Cycling Buddy Matching

Daily Trip-Logging Capabilities

Personal Savings Reports (Environmental and Financial)

Integrated Savings Calculator – Coming Soon

Integrated Reward System – Coming Soon

Regional Points of Interest

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

tryparkingit.com

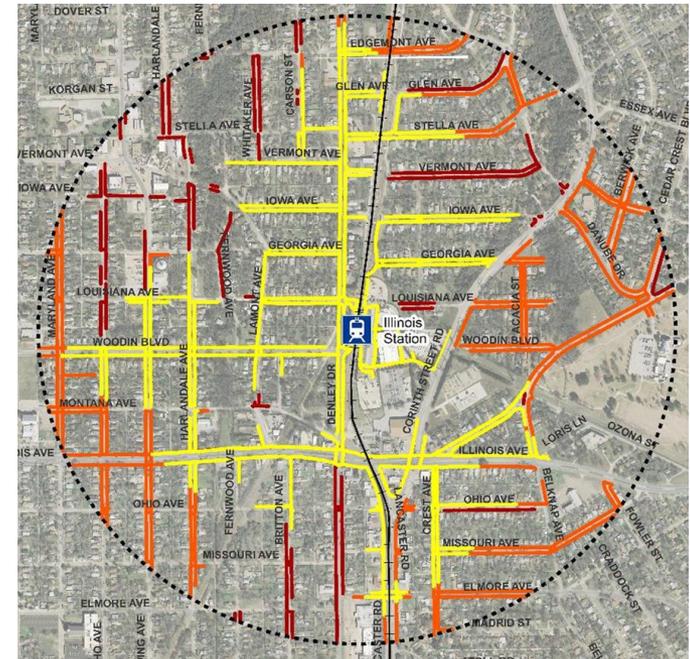
BIKE / WALK / TRANSIT TRANSPORTATION

Goal/Description

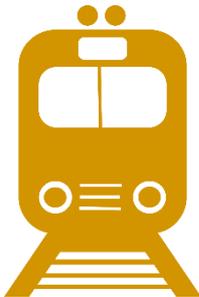
Complete the **first mile / last mile** pedestrian and bicycle connections around transit stations.

Why Is this Important to Business?

Helps provide transportation options for workers to access places of employment and other destinations.



Rail
Station



Complete
Gaps in
the
Network



Employment
Destination



www.nctcog.org/RoutesToRail

COMPLETE STREETS

Accommodate All Modes of Transportation

Goal/Description

Design and operate roadways to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

How Do Complete Streets Improve Air Quality and Benefit Business?

Provides options for non-motorized travel to major destinations including employment, education, medical, and transit stations.

Graphic Source: City of Dallas Complete Streets Initiative



OTHER CLEAN AIR STRATEGIES

Organizations/Businesses/Governments

Move Construction Activities to Evening Hours

Postpone Mowing to a Day with Healthy Air

Conserve Electricity and Retrofit to Efficient Lighting

Limit Testing of Emergency Generators

Coordinate On-site Employee Lunches

Use Audio and Video Conference Call Technology

Reduce Water and Use EPA's WaterSense

Use Solar and Other Renewables for Power Needs When Possible

Use SmartScape Plants



CLEAN AIR ACTION DAY

**First Friday of Summer Every Year
June 26, 2015**

**People Commit to Adopting at Least One Clean
Air Strategy for the Day**

**Organizations and Businesses Promote the Day
with Contests and Events for Employees**

**Asking Participants to Wear Green and
Post Photos of Their Commitments on Social Media
Using #CAAD2015 for a Chance to Win Prizes**



CLEAN AIR ACTION DAY

The screenshot shows the 'airnorthtexas' website with a 'go green breathe clean' banner. The main content area is titled 'Clean Air Action Day' and includes a 'take action' button. Below this is a 'CARPOOL For Air Quality' graphic. A form for entering company name, email address, and ZIP code is visible. To the right of the form are logos for DART, DCTA, and TRE, each with 'Fares Map Schedule' links. Below these is a 'tryparkingit.com' logo and a brief description of the service. A 'Submit' button is at the bottom of the form. On the left side of the page, there are several navigation links: 'Home', 'about us', 'know your impact', 'join us', 'air facts', 'partner resources', 'links', 'BE AIR AWARE', 'current ozone activity', 'biking/walking routes', 'commute info', 'report smoking vehicles', and 'be air aware'. At the bottom, there is a 'Share Your Story' section with a 'Submit' button and a 'Share your story today >>>' link.

Enter company name, email and zip code

Select commitments, share story, upload video and photos

www.airnorthtexas.org/cleanair.asp

Questions?