

OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Leadership North Texas
April 29, 2016

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



OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Air Quality 101

Air Quality Funding Opportunities

Opportunities for Improvement Programs

OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Air Quality 101

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)

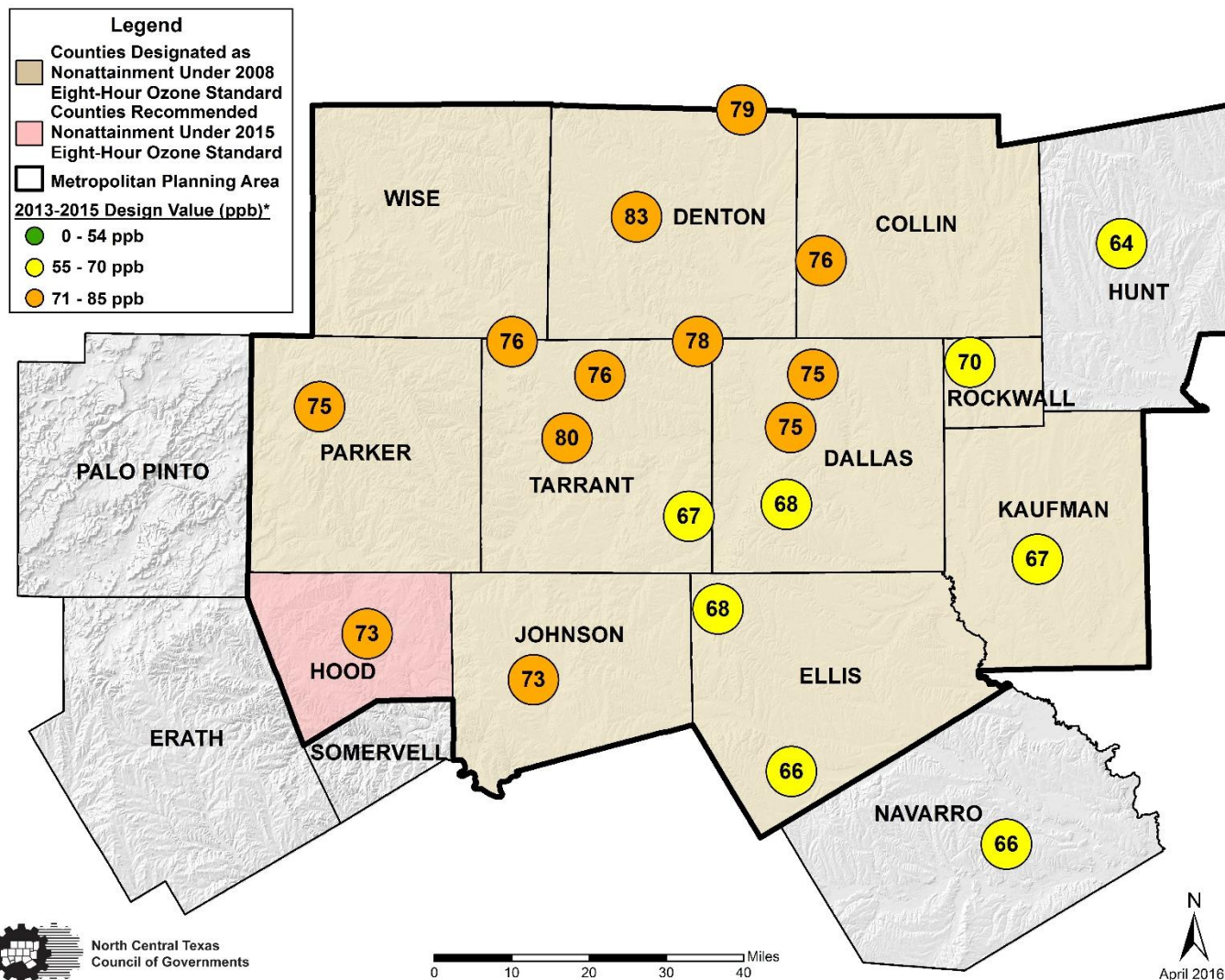
Particulate Matter (PM)

Sulfur Dioxide (SO₂)

EPA must complete a review of NAAQS every five years

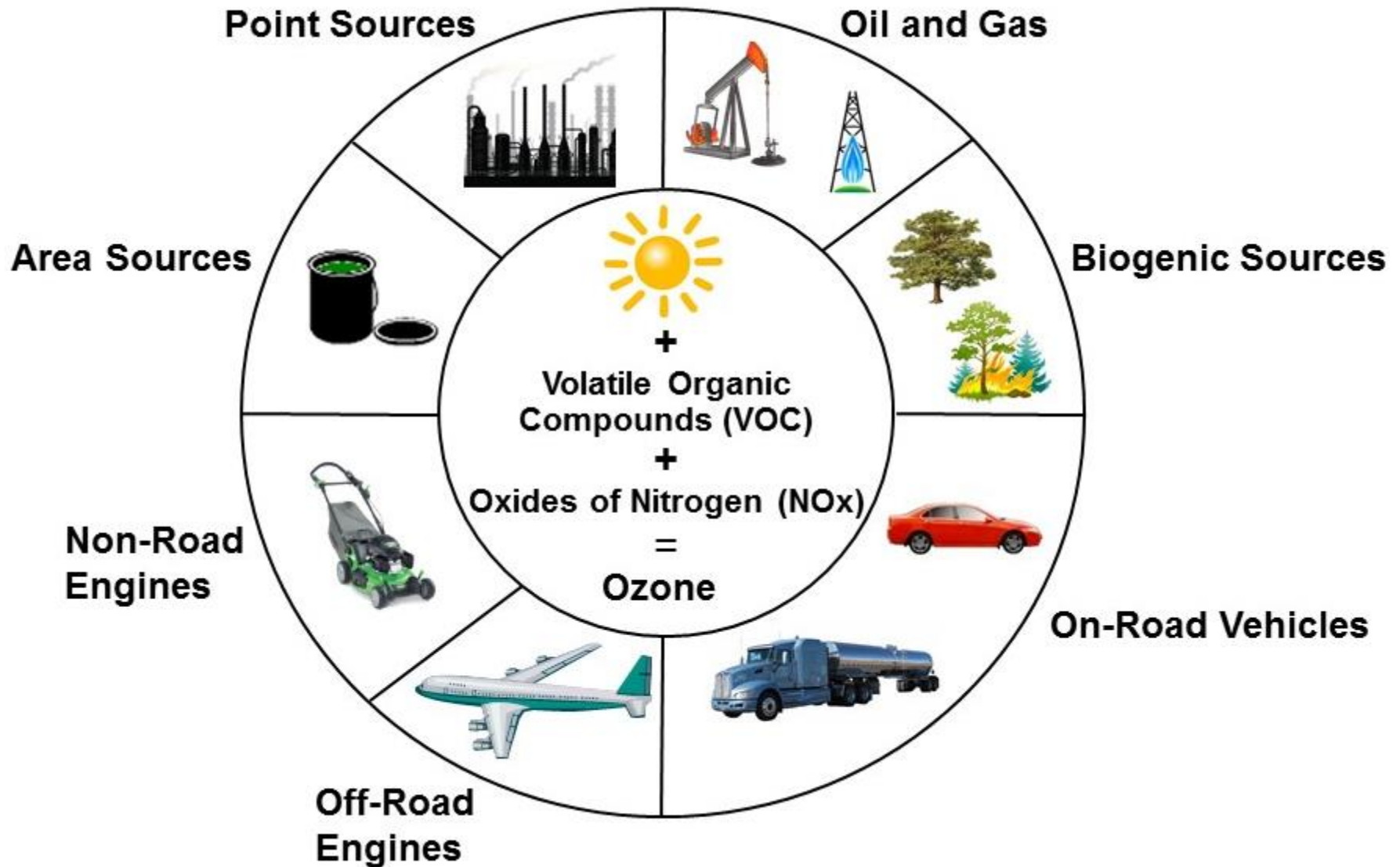
NCTCOG PLANNING AREA

North Central Texas Nonattainment Area



*Air Quality Index based on 2015 Eight-hour Ozone standard, ≤ 70 parts per billion (ppb)

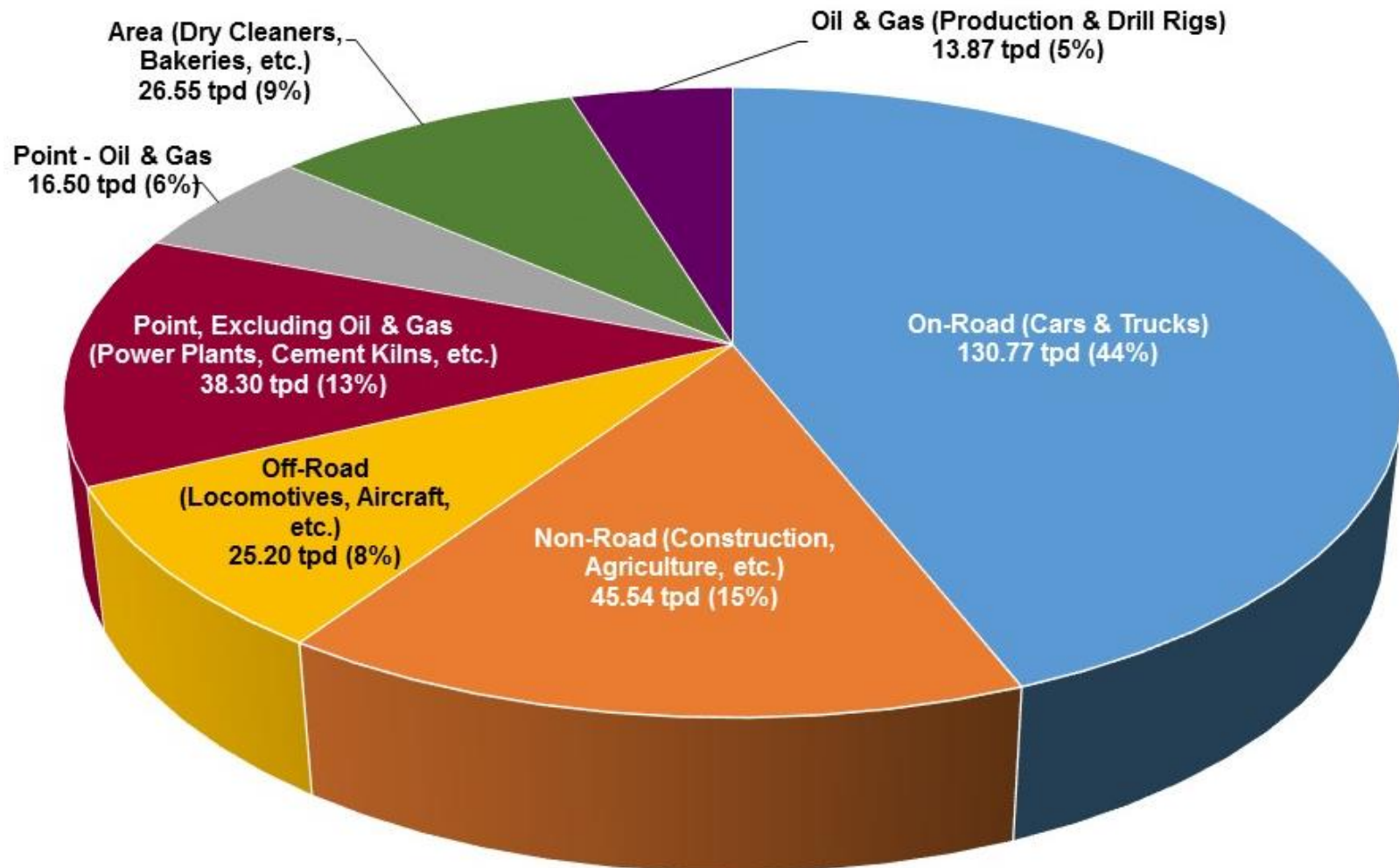
OZONE FORMATION



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

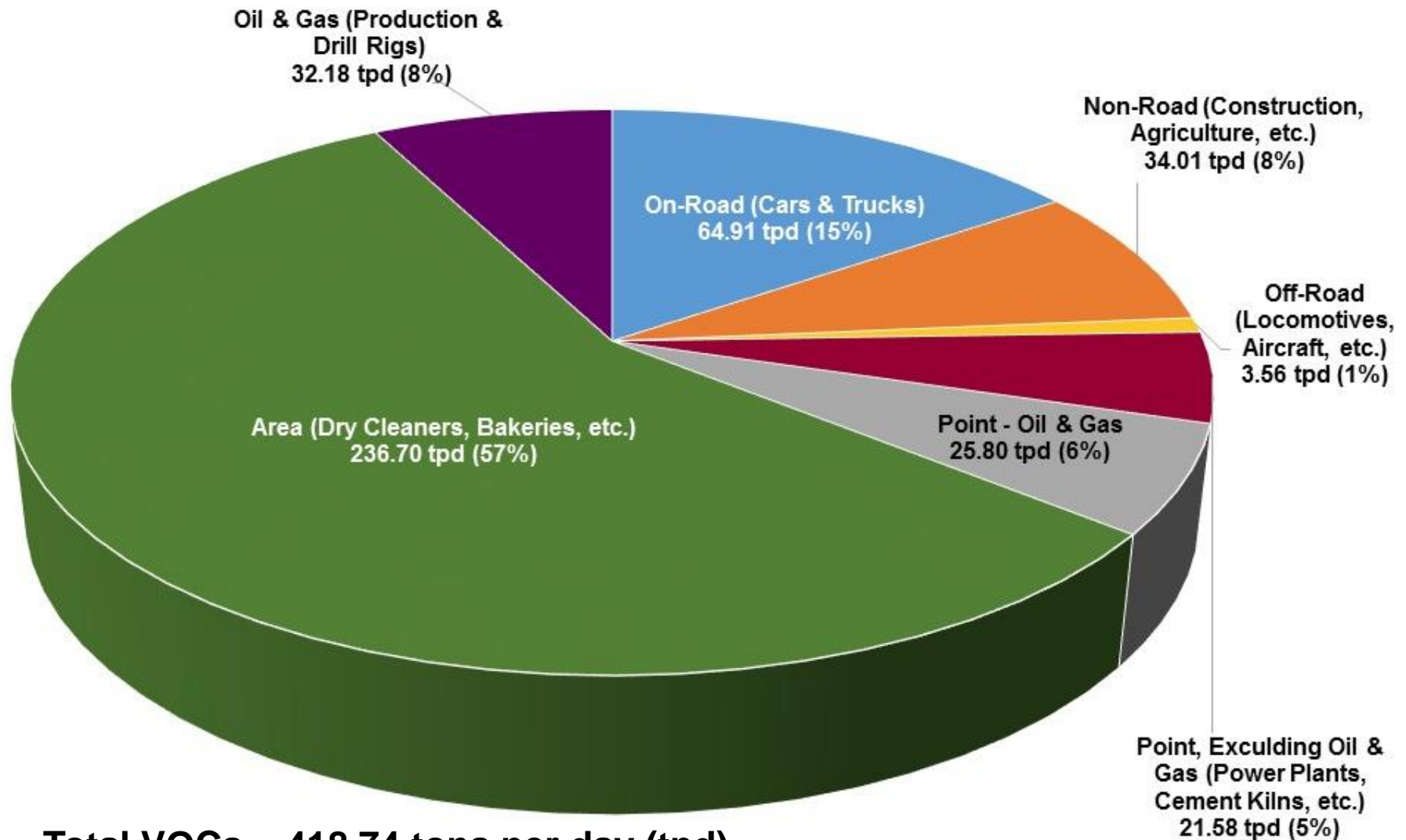
Oxides of Nitrogen (NO_x)



Total NO_x = 296.73 tons per day (tpd)

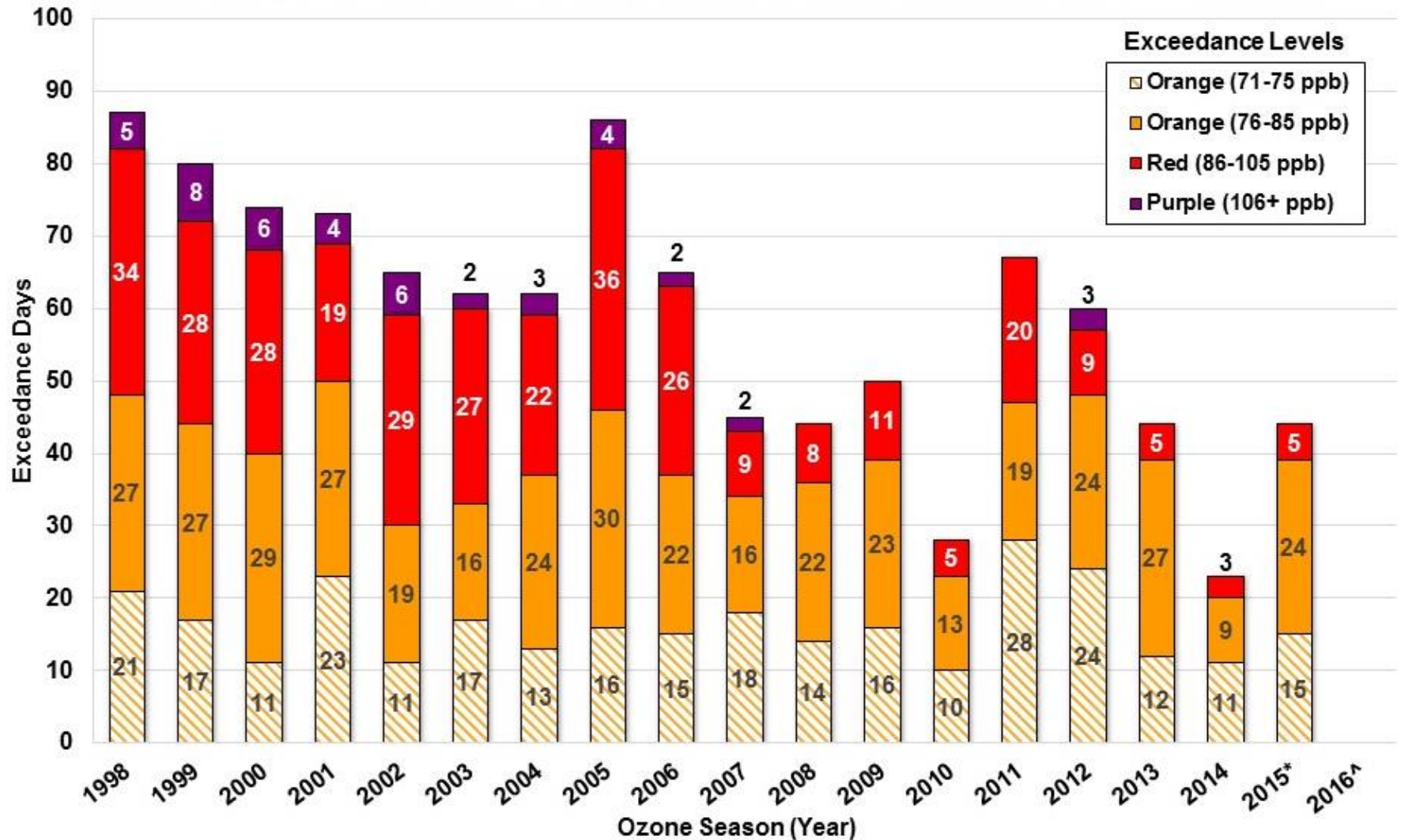
EMISSION SOURCES

Volatile Organic Compounds (VOC)




Total VOCs = 418.74 tons per day (tpd)

OZONE EXCEEDANCE DAYS



Exceedance Level indicates daily maximum eight-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

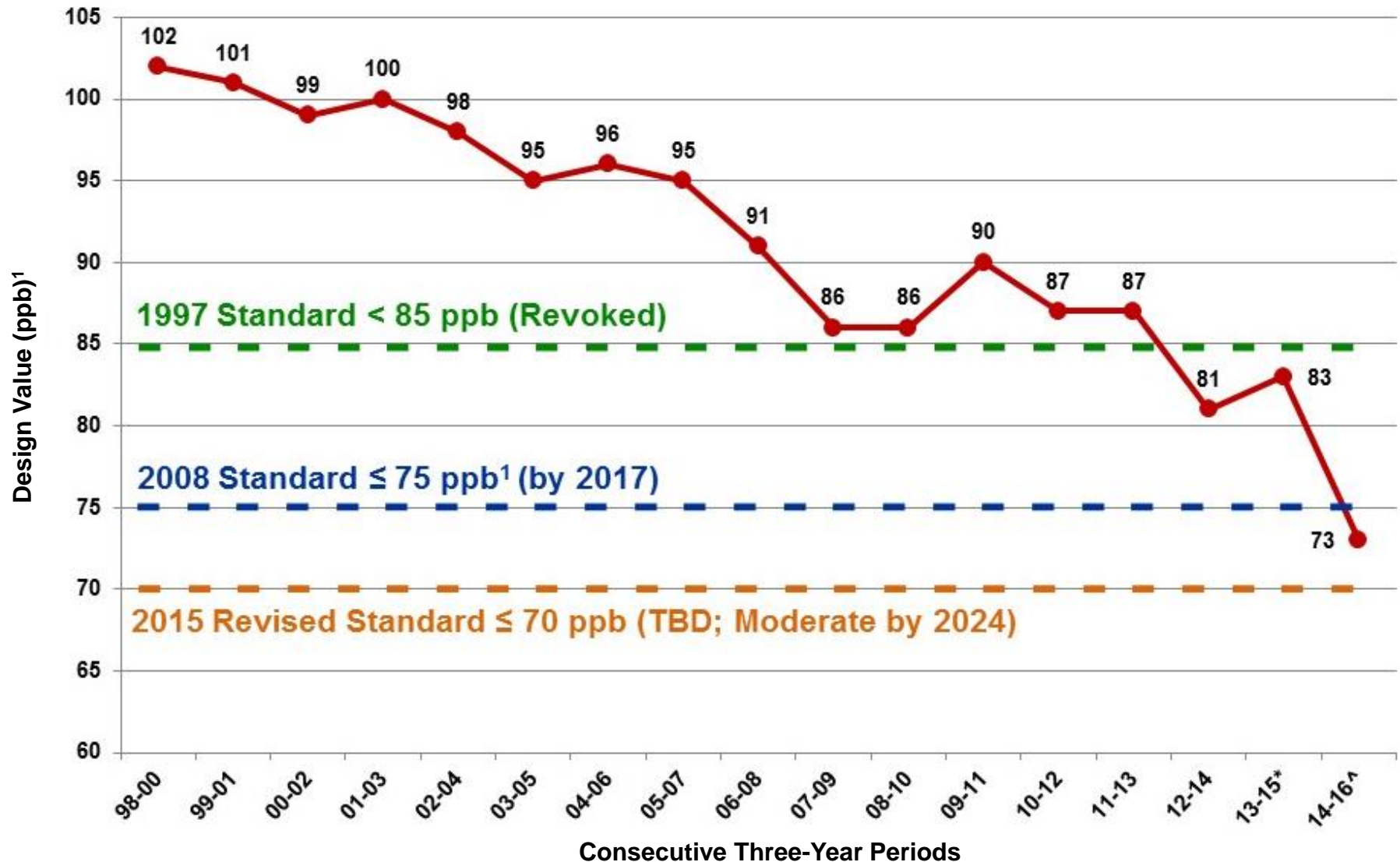
 = Additional level orange exceedance days under the revised standard that were not exceedances under the previous 75 ppb standard. (AQI level orange = 71-75 ppb)

* Data not certified by the TCEQ

^Not a full year of data, current as of 4/24/2016

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

HISTORICAL TRENDS IN OZONE

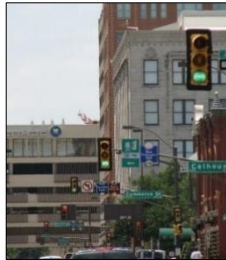


¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

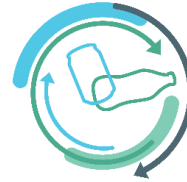
*Data not certified by the Texas Commission on Environmental Quality

^Not a full year of data, current as of 4/24/2016

REGIONAL TRANSPORTATION COUNCIL LOCAL AIR QUALITY PROGRAMS



SAMPLE OF NON-ROAD INITIATIVES



TimeToRecycle.com



DALLAS
2030
DISTRICT®



Green
Completions



OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Air Quality Funding Opportunities

AIR QUALITY FUNDING OPPORTUNITIES

NCTCOG Assistance Available
 Funding
 Help Completing Applications

Looking for Grant Funding?

Vehicle Funding
Opportunities

Other Air Quality
Funding Opportunities

Funding Opportunity
Archive

Sign-Up for Email
Updates

Eligible Focus Areas									
Heavy-Duty Vehicles						Light-Duty Vehicles			Eligible Applicant Type
School Buses	Oil and Gas Vehicles/Equipment	Long Haul Trucks	Dump Trucks	Idle-Reduction Technology	Other	Passenger Vehicles	Taxis	Idle-Reduction Technology	
						X			General Public
	X				X				Private Sector
X	X	X	X	X		X	X		Private Sector
X	X		X		X	X	X		Public Sector Private Sector
X	X	X	X		X				Public Sector Private Sector General Public

www.nctcog.org/aqfunding

OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Opportunities for Improvement Programs

TEXAS EMISSIONS REDUCTION PLAN (TERP)

Program Goals/Description

Provide Funding Assistance for Projects that Reduce Emissions (NO_x Focus)

Various Programs Under TERP “Umbrella”

- Mobile Sources

- Refueling Infrastructure

- Point Sources

- Stationary Sources

- Energy Efficiency

**Major Funding Round
Coming Fall 2016**

NCTCOG Resources

- Assessment of Project Funding Potential

- Free Assistance with Grant Applications

- Comments on Proposed Rulemakings

Get Involved

- Subscribe to TERP E-Mail Lists

- Subscribe to NCTCOG AQ Funding E-Mails

- Attend TERP Meetings and Workshops



www.terpgrants.org

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 and Alerts for Ozone Action Days

- Outreach and Advertising Campaign

- Events – Air Quality Awareness Week, May 2-5, 2016 and
Clean Air Action Day, June 24, 2016

How To Get Involved

- Sign-up to Receive Monthly Newsletters and Alerts

- Provide Messages and Alerts to your Employees

- Become an Air North Texas Partner

- Participate in Air North Texas Activities

- Promote Your Air Quality Improvements Online

www.airnorthtexas.org



CLEAN AIR ACTION DAY

Description:

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

When:

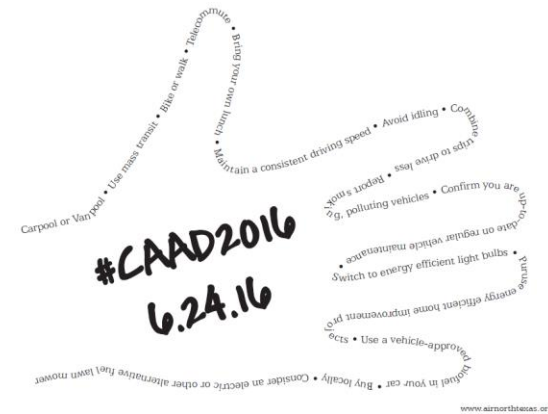
First Friday of Summer Every Year
June 24, 2016

How to Participate:

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

Asking Participants to Lend a Hand to Air Quality
and Post Photos of Their Commitments on
Social Media Using #CAAD2016 for a Chance to
Win Prizes

www.airnorthtexas.org/cleanair.asp



GO SOLAR NORTH TEXAS

Goal/Description

- Streamline of Regulatory Processes
- Provide Resources for Cities
- Increase Awareness

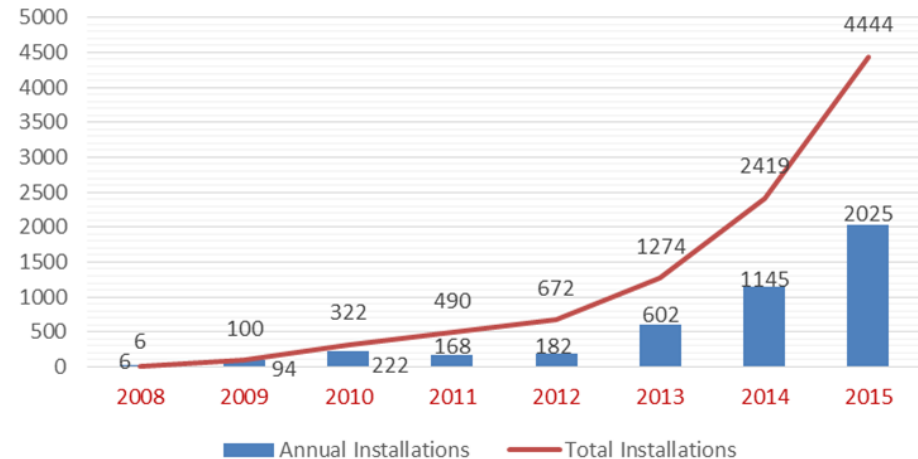
NCTCOG Resources

- Template Permitting Documents
- Ordinance Guidance
- Website Clearinghouse

How To Get Involved

- Adopt Suggested Best Practices
- Attend Upcoming Webinars & Trainings

Annual and Total DFW Area
Solar Installations (2008 to 2015)



Source: NTREG, 2016



www.gosolarnorthtexas.org

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



**Dallas-Fort Worth
CLEAN CITIES**

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).

A smartphone app was created to support this program through the North Texas Apps Challenge in 2014.

NCTCOG Resources

Website

Signs and Sign Artwork

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



www.dfwcleancities.org/greenparking

**Dallas-Fort Worth
CLEAN CITIES**

ELECTRIC VEHICLES NORTH TEXAS (EVNT)

Goal/Description

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

NCTCOG Resources

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

How To Get Involved

Attend EVNT & DFW Clean Cities Meetings
Sign-up to Receive Email Announcements
Attend the National Drive Electric Week Event
Install Workplace Charging



www.dfwcleancities.org/evnt

NATIONAL DRIVE ELECTRIC WEEK EVENT

Who Should Attend

Anyone Interested in Learning About EVs & Charging Stations
EV Owners

Why Should You Attend

Get a General Introduction to EVs & Charging Stations
Discover Available Resources
Talk to EV Owners
Meet Exhibitors and Participate in “Ride And Drives”

Date, Time & Location

September 17, 2016
10 am – 2 pm
Grapevine Mills Mall



www.dfwcleancities.org/evnt

CLEAN FLEET POLICY

Goal/Description

Reduce Emissions and Overall Fuel Consumption From Fleet Activities

NCTCOG Resources

Funding Eligibility

Template Policy and Guidance

Template Idle Reduction (IR) Policy and Guidance

DFW Clean Cities Recognition Program

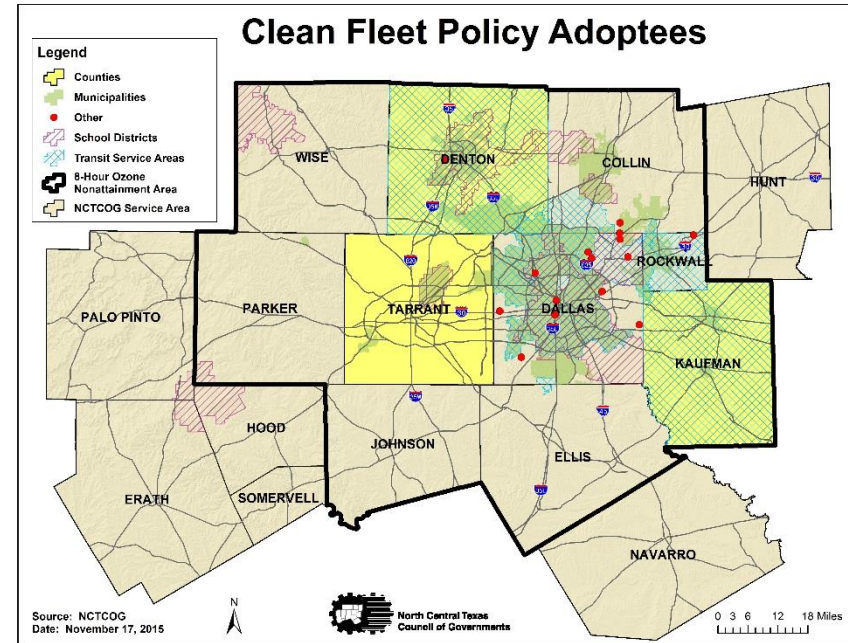
How To Get Involved

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 Report



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)



engineoffnorthtexas.org

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



www.nctcog.org/SmartWay

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

NCTCOG Resources

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

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 Businesses
- Promote Program Assistance



www.nctcog.org/airchecktexas

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 Available

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

Get Involved

Contact Sonya Landrum at (817) 695-9273 or slandrum@nctcog.org for Details

TRY PARKING IT

Overview

Regional Commuter Tracking and Ride-Matching System for North Central Texas

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 Reward System and Savings Calculator
- Regional Points of Interest

Employees

- Option to Participate in Trip Logging, Ride-Matching or Both
- Registered Users can Specify Rideshare Preferences
(i.e. commute schedule, co-workers only, non-smokers)

Registered Employers

- Designated Employer Administrator Access
- Track Employees' Alternative Commute Activities and Savings
- Generate Company-Specific Reports (Environmental and Financial)
- Customizable Employer Portal
- Include Company Logo and Messages for Employees
- Promote Company-Specific Incentives and Rewards



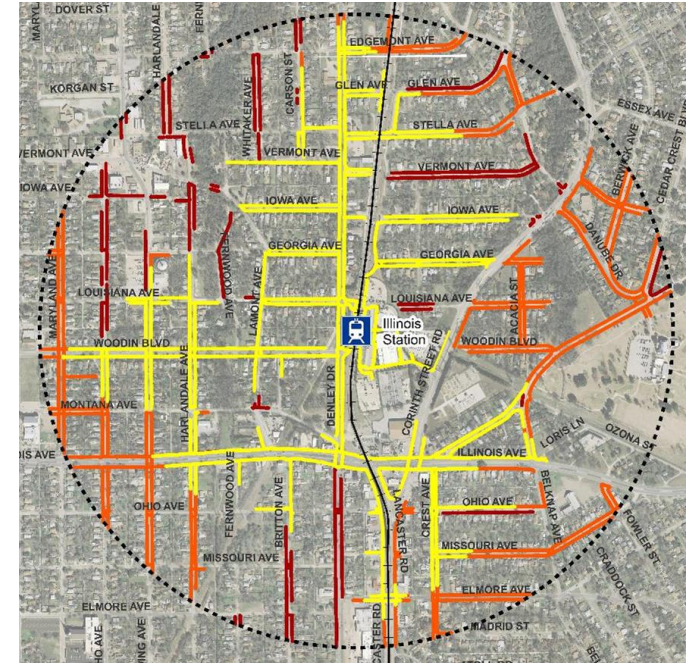
BIKE / WALK / TRANSIT TRANSPORTATION

Goal/Description

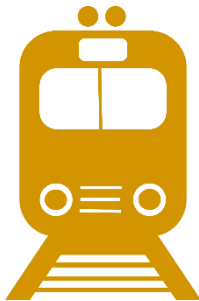
Complete the first mile/last mile pedestrian and bicycle connections around transit stations

Why Is this Important to Business?

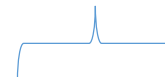
Helps provide transportation options for workers to access places of employment and other destinations



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



www.nctcog.org/BikePed

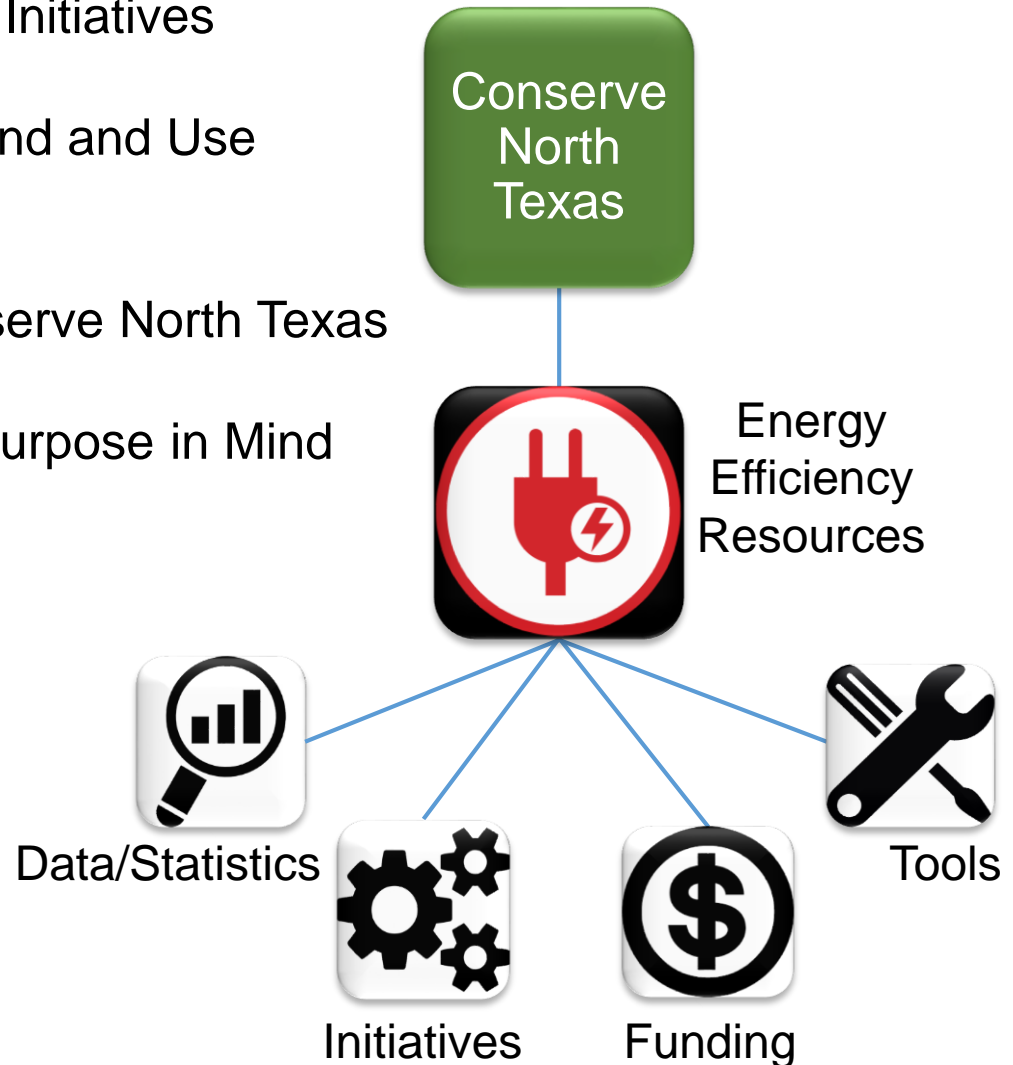
CONNECTING ENERGY EFFICIENCY RESOURCES

Issue

Many Energy Resources and Initiatives
Disaggregated
Difficult for Stakeholders to Find and Use

Proposed Solution

Website Clearinghouse: Conserve North Texas
“One-Stop-Shop”
Organized with Audience/Purpose in Mind



URL Coming Soon

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



FOR FURTHER INFORMATION

Chris Klaus
Senior Program Manager
817-695-9286
cklaus@nctcog.org

Mindy Mize
Program Manager
817-608-2346
mmize@nctcog.org

Find us on social media @nctcogtrans



www.nctcog.org/trans/air

