

NORTH TEXAS AIR QUALITY: OPPORTUNITIES FOR IMPROVEMENT

**Leadership North Texas
March 23, 2018**

**Lori Clark, Program Manager
Air Quality Planning & Operations
NCTCOG Transportation Department**

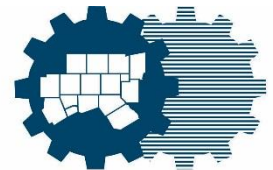


**North Central Texas
Council of Governments**

NORTH TEXAS AIR QUALITY: OPPORTUNITIES FOR IMPROVEMENT

Air Quality 101

www.nctcog.org/airquality



North Central Texas
Council of Governments

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)

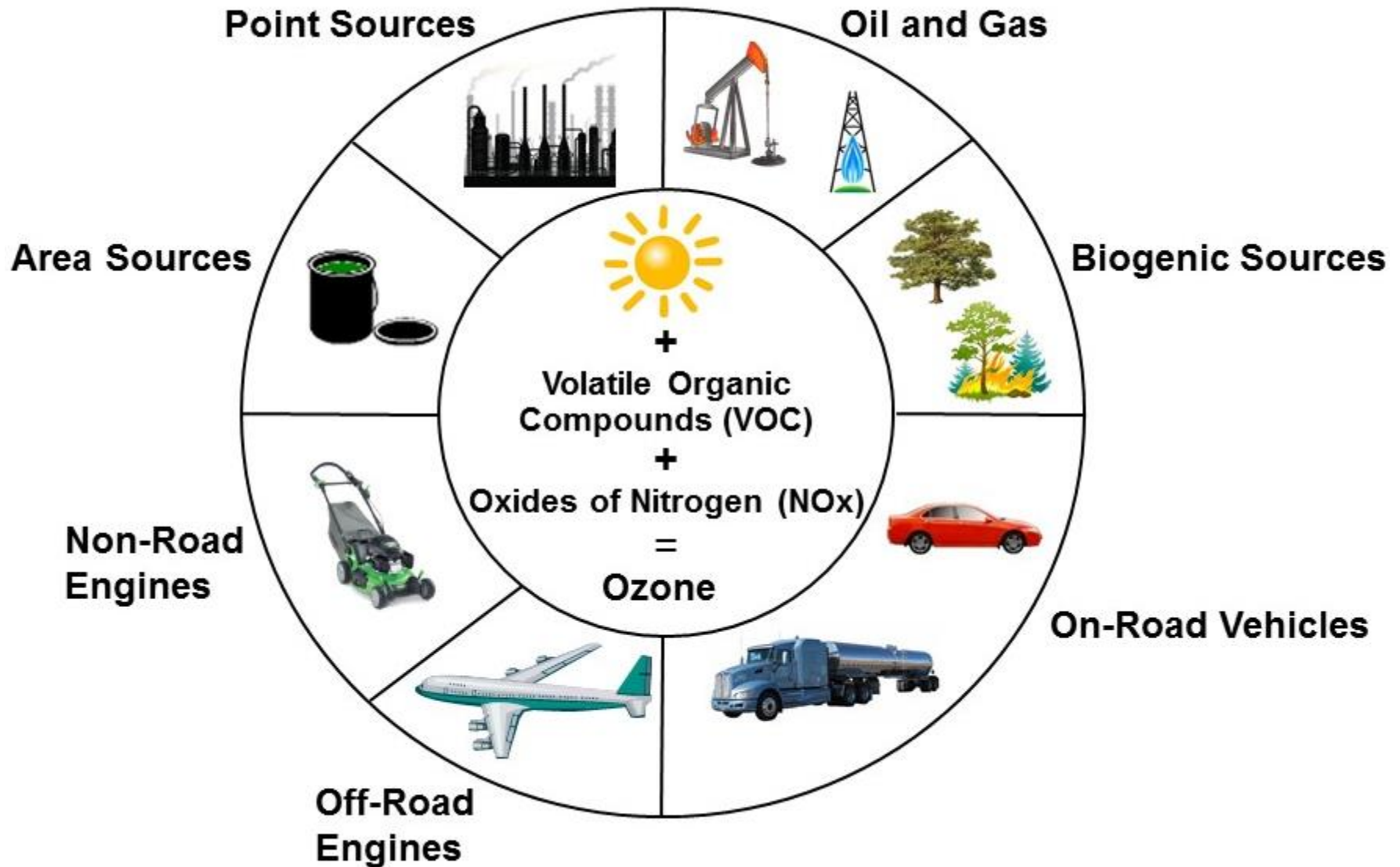
Ozone (O₃)

Particulate Matter (PM)

Sulfur Dioxide (SO₂)

EPA must complete a review of NAAQS every five years

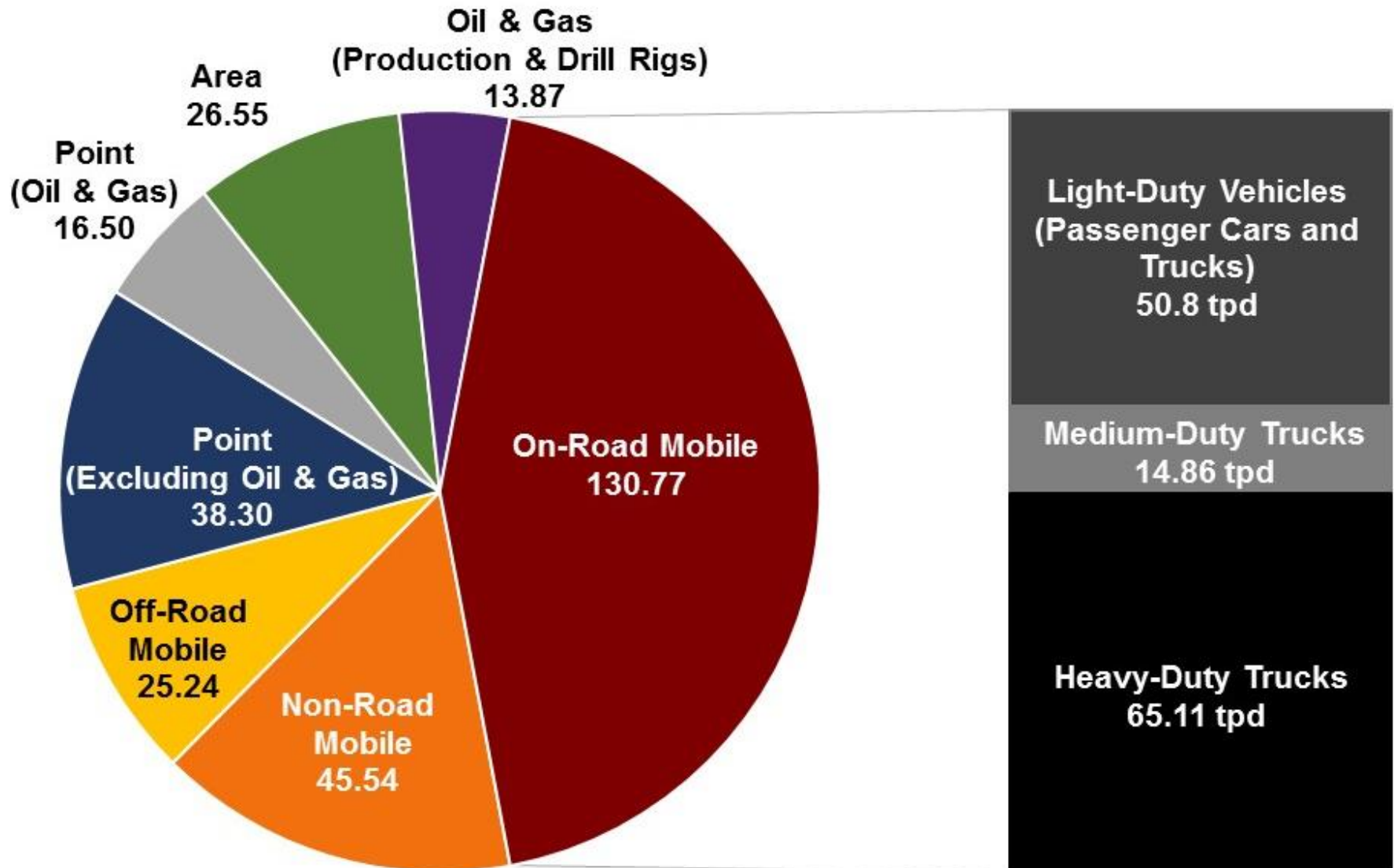
OZONE FORMATION



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

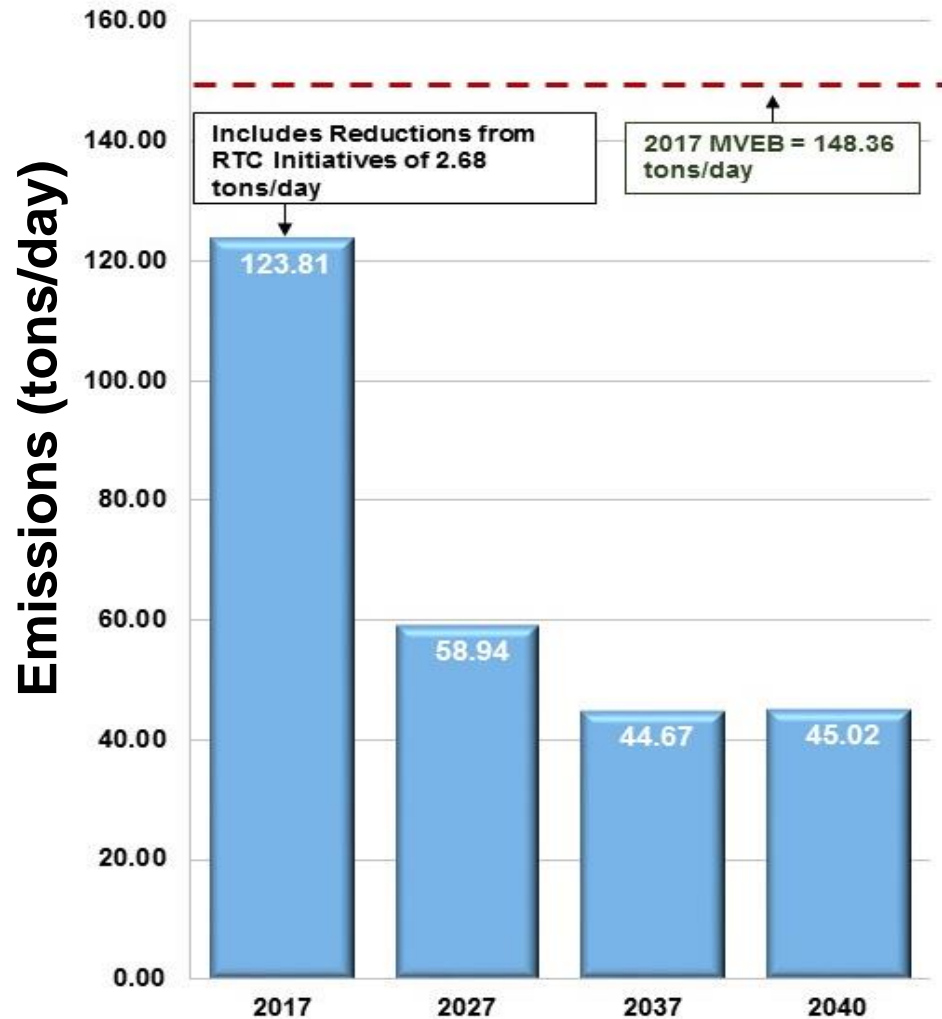
NITROGEN OXIDES (NO_x) EMISSION SOURCES

Total NO_x = 296.77 tons per day (tpd)

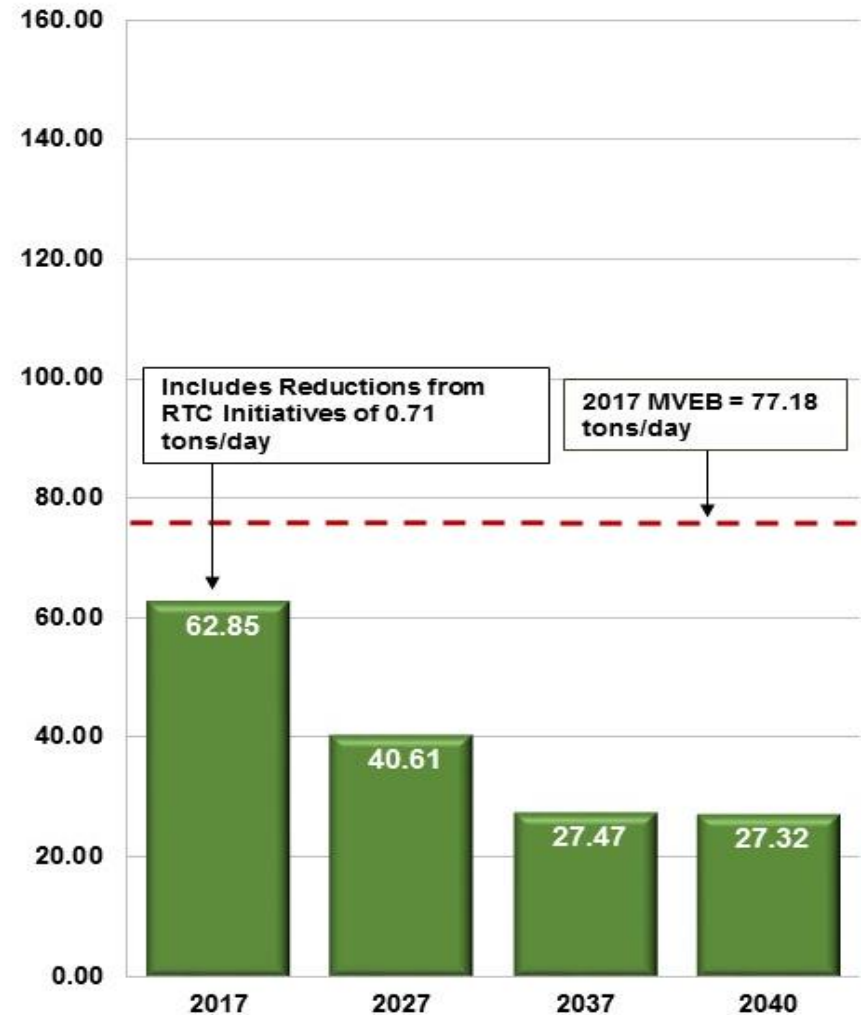


2016 AIR QUALITY CONFORMITY ANALYSIS

Emissions of Nitrogen Oxides (NO_x)

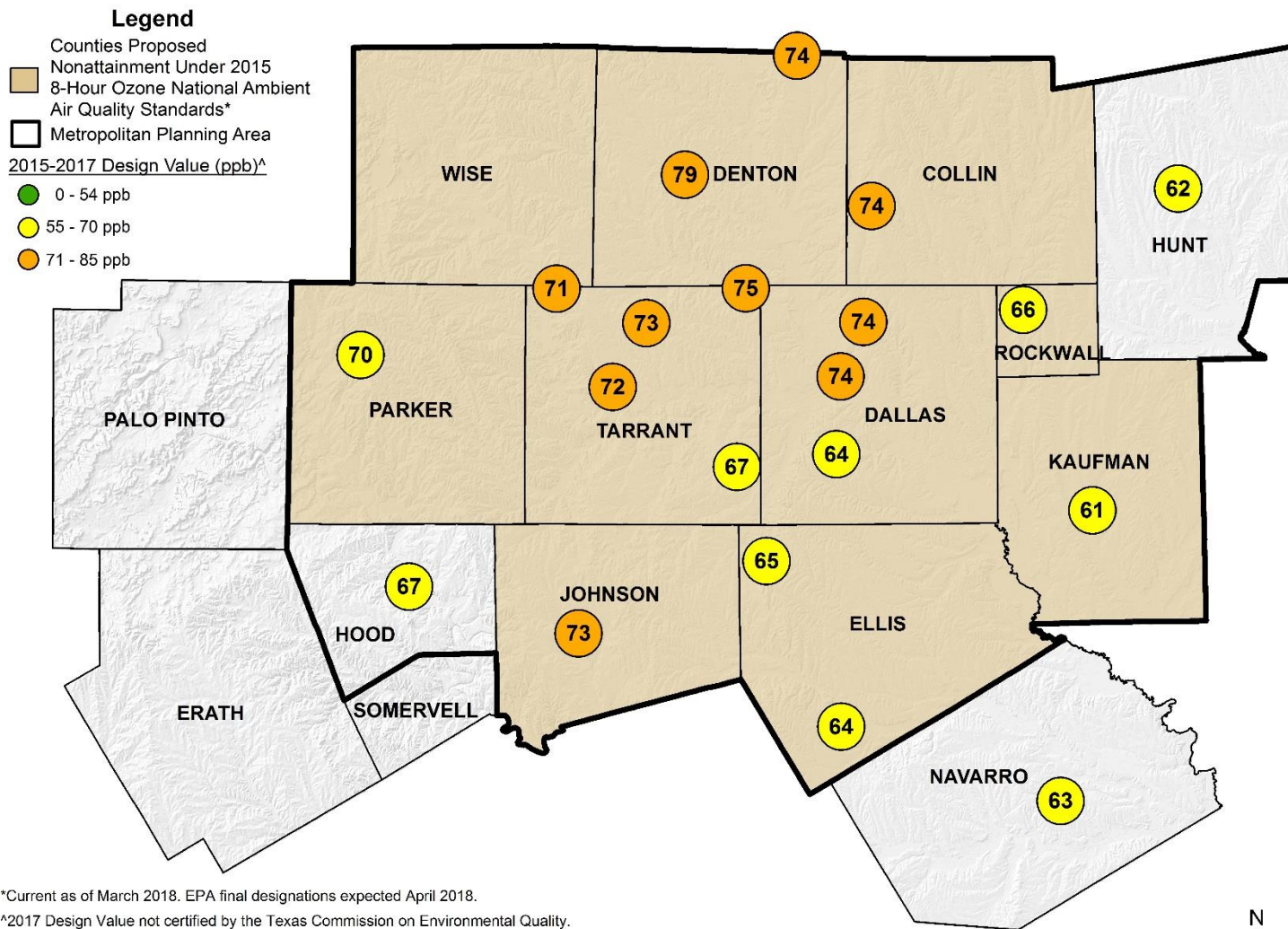


Emissions of Volatile Organic Compounds (VOC)



Analysis Years

NCTCOG PLANNING AREA



*Current as of March 2018. EPA final designations expected April 2018.

[^]2017 Design Value not certified by the Texas Commission on Environmental Quality.



North Central Texas
Council of Governments






0 10 20 30 40 Miles



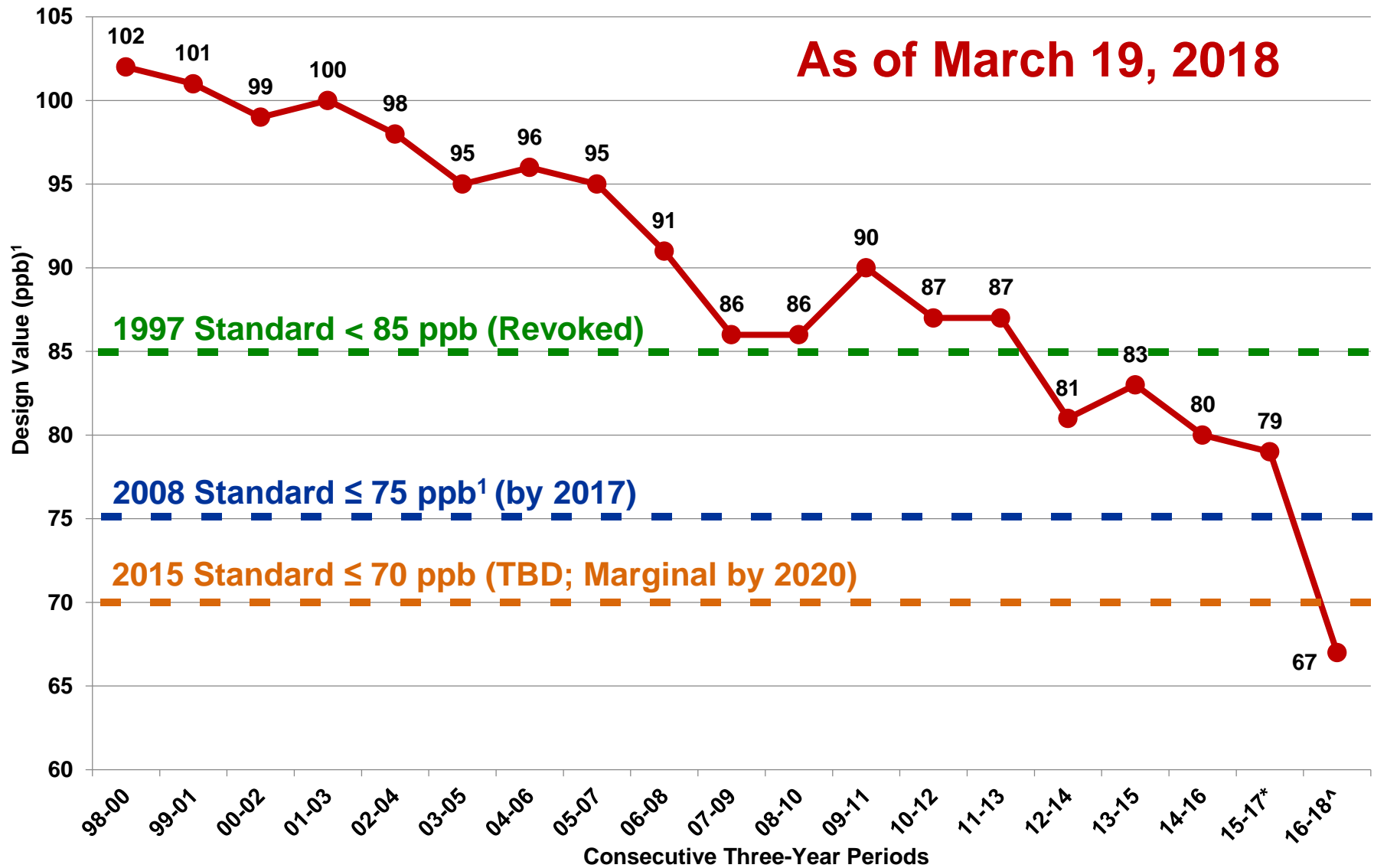
Colors represent Air Quality Index breakpoints

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 eight-hour average ozone concentration is less than or equal to 70 parts per billion (ppb).

EPA AIR QUALITY INDEX

Color	Air Quality	Actions to Protect Your Health
	good	None necessary
	moderate	Unusually sensitive people should consider limiting prolonged outdoor exertion
	unhealthy for sensitive groups	Active children and adults and people with respiratory disease, such as asthma, should <i>limit</i> prolonged outdoor exertion
	unhealthy	Active children and adults and people with respiratory disease, such as asthma, should <i>avoid</i> prolonged outdoor exertion; everyone else, especially children, should <i>limit</i> prolonged outdoor exertion
	very unhealthy	Active children and adults and people with respiratory disease, such as asthma, should <i>avoid all</i> prolonged outdoor exertion; everyone else, especially children, should <i>limit</i> prolonged outdoor exertion

EIGHT-HOUR OZONE HISTORICAL TRENDS

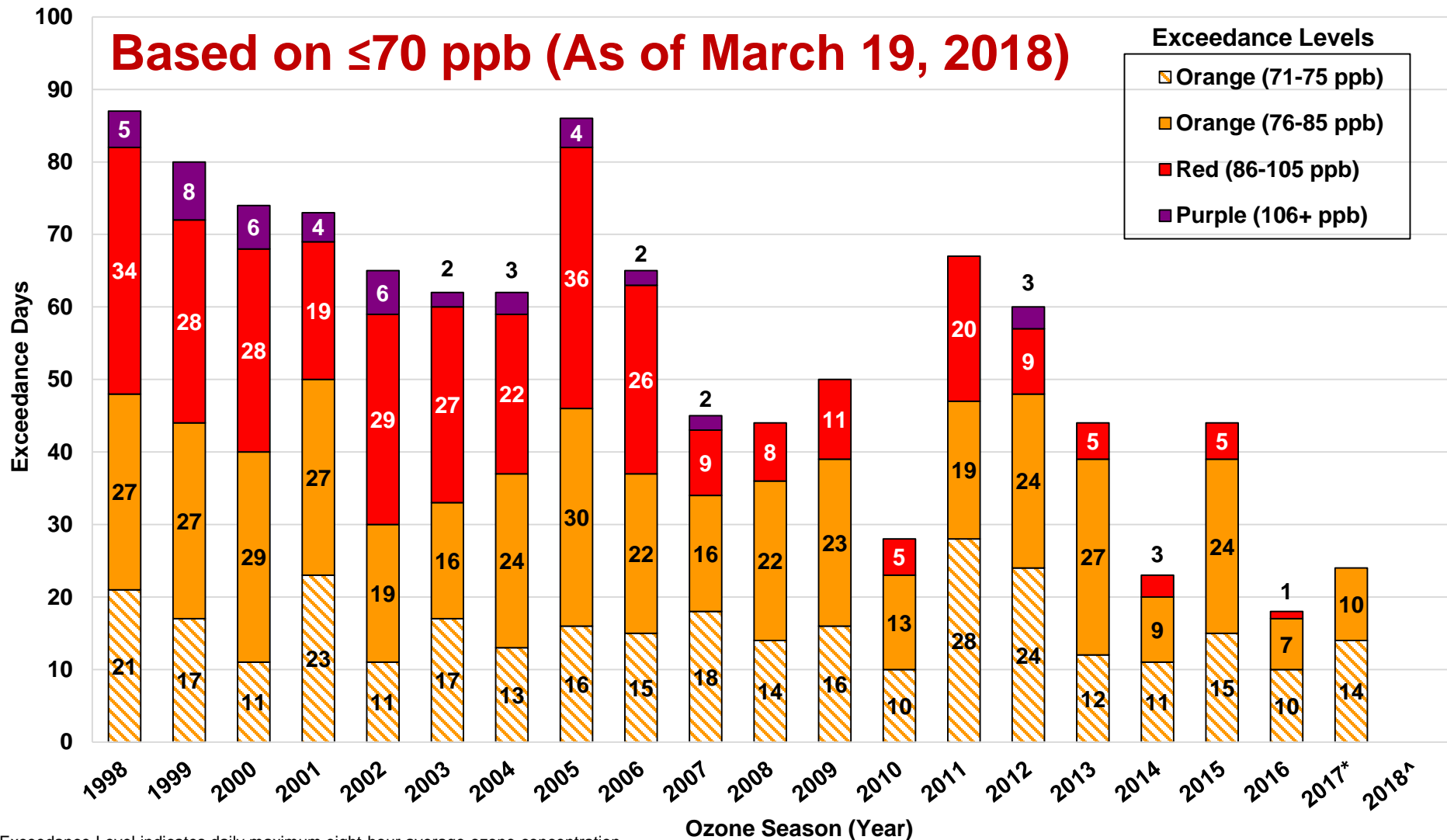


¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).


*2017 data not certified by the Texas Commission on Environmental Quality

^Not a full year of data, current as of 3/19/2018

EIGHT-HOUR OZONE HISTORICAL TRENDS



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 3/19/2018

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

2015 8-HOUR OZONE STANDARD (≤ 70)

Anticipated Implementation Timeline

October 26, 2015:	2015 Standard Final Rule ¹
December 28, 2015:	Effective Date
October 2016:	State Nonattainment Designations Recommendations to EPA
November 16, 2017:	EPA Designated 2,646 Counties as Attainment/Unclassifiable and three Counties as Unclassifiable ²
January 16, 2018:	Effective Date
April 2018:	Final Rule Classifying Nonattainment Counties (Marginal classification³ anticipated for DFW ten-county nonattainment region)

¹<https://federalregister.gov/a/2015-26594>

²<https://www.federalregister.gov/d/2017-24640>

³Marginal Attainment date = 2020

Source: Environmental Protection Agency (EPA)

WHAT'S NEXT????

The Unknowns...

Old Standards Reinstated?

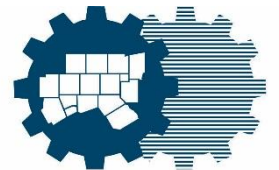
Impact of New Administration?

Additional “Clean Diesel” Lawsuits?

NORTH TEXAS AIR QUALITY: OPPORTUNITIES FOR IMPROVEMENT

Air Quality Programs

www.nctcog.org/airquality



North Central Texas
Council of Governments

AIR QUALITY EMPHASIS AREAS

High-Emitting Vehicles/Equipment

Idling

Hard Accelerations

Low Speeds

Cold Starts

Vehicle Miles of Travel

Energy and Fuel Use

SAMPLE OF AIR QUALITY INITIATIVES



Rideshare. Record. Reward.



NORTH CENTRAL TEXAS
EMPLOYER
TRIP
REDUCTION



AIR NORTH TEXAS

Program: Regional Clean Air Partnership and Campaign

Provide a Comprehensive Air Quality Resource and Regional Message

Leverage Resources and Collaborate with Regional Partners

Increase Public Awareness of Specific Opportunities for Clean Air Choices

Key Resources

New Comprehensive Website, Including Current Ozone Conditions

Clean Air Corner Blog and Alerts for Ozone Action Days

Outreach and Advertising Campaign

**Events – Air Quality Awareness Week, April 30-May 4, 2018 and
Clean Air Action Day, June 22, 2018**

Get Involved!

Sign-up to Receive New Blog Notifications and Alerts

Provide Messages and Alerts to your Employees

Become an Air North Texas Partner

Participate in Air North Texas Activities and Actions

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 22, 2018**



Get Involved!

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

**Asking Participants to Post Photos of Their Commitments on
Social Media Using #CAAD2018**

www.airnorthtexas.org/cleanairactionday

EMPLOYER TRIP REDUCTION PROGRAM

Goal: Reduce Number of Vehicles on the Road and Improve Air Quality
Educate Employers and Commuters on Alternative Commute Strategies
Promote Alternatives to Driving Alone on Commute Trips
Alternatives Include Carpooling, Vanpooling, Telecommuting, Flexible Work Hour Programs, Transit, Biking and Walking
Assist Employer in Developing Alternative Commute Programs
Increase Active Participation on www.TryParkingIt.com

Resources

Employee Informational Sessions, Lunch & Learns, and Outreach Events
ETR Employer Manual for North Texas
Guide to Alternative Commuting, Employer Programs, Rewards, and More
Trip Reduction Program Support and Startup Guidelines/Recommendations
TryParkingIt.com – Ride-match and Commuter Tracking System
Try Parking It Outreach and Educational Materials

Get Involved!

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

TRY PARKING IT

Goal: Reduce Number of Single Occupancy Vehicles on the Road

Ride-Matching for Traditional Carpools and Vanpools

Transit, Walking, and Cycling Buddy Matching

Multi-modal Trip Logging System to Track Alternative Commute Impacts

Reward Commuters for Not Driving Alone

Key Resources

Personal Savings Reports – Calories, Emissions, Miles, Fuel, \$\$\$ Saved

Integrated Rewards System – Contest, Purchase, and Milestone

Commuter Challenges

Customizable Employer Portal with Company-Specific Reports

Get Involved!

Become a Participating Employer

Encourage Employee Participation

Become a G.R.E.E.N. Rewards Partner

Give. Receive. Expand. Effect. North Texas



www.tryparkingit.com

Rideshare. Record. Reward.

DALLAS-FORT WORTH CLEAN CITIES COALITION

Goal: Reduce Emissions and Petroleum Consumption

Increasing Use of Alternative Fuels in Transportation

Reducing Idling

Increasing Fuel Economy

Promoting Other Fuel-Conserving Measures

Key Resources

Education on Vehicle Technologies

Meetings, Workshops, Webinars, Trainings

Access to National Technical Assistance

Monthly E-Newsletter and Weekly E-Mail Updates

Fleet Recognition Program



**Dallas-Fort Worth
CLEAN CITIES**

Get Involved!

Attend Meetings/Events

Sign Up for E-Mails and Newsletters

Sponsor the Coalition

Switch to Alternative Fuel Vehicles

Submit Annual Survey to Receive Recognition

2017 Silver Fleet 2017 Gold Fleet



www.dfwcleancities.org

ELECTRIC VEHICLES NORTH TEXAS

Goal: Increase Adoption of Electric Vehicles (EVs)

Increasing Awareness

Encouraging Installation of Charging Infrastructure



Key Resources

Technical Data and Fact Sheets

Information About Incentives

Meetings and Events

Get Involved!

Attend (or Host) Meetings

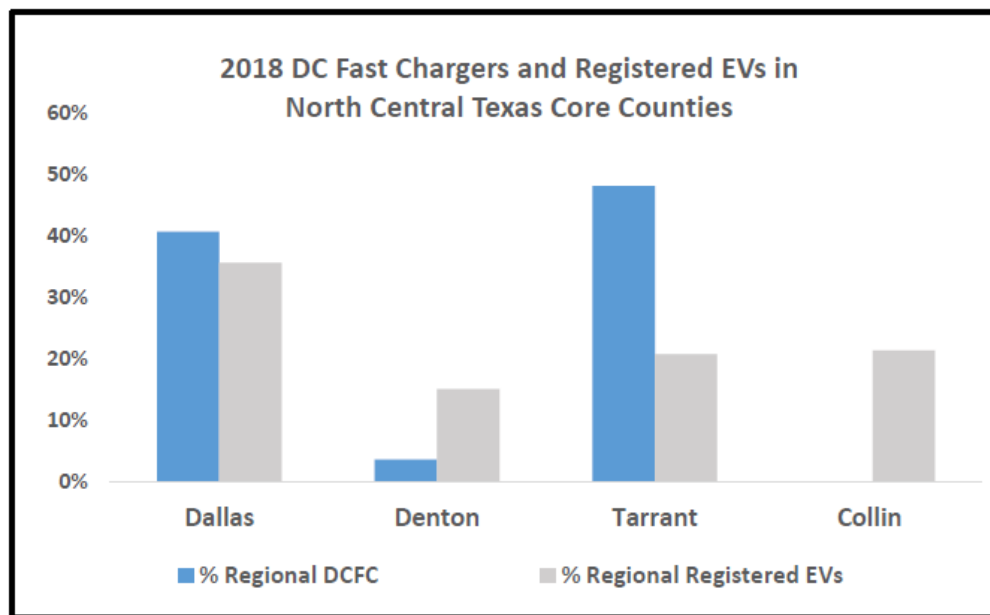
Sign Up for Emails

Adopt EV-Friendly Policies

Install Charging Infrastructure

Purchase Electric Vehicles

Attend National Drive Electric Week!



Source: NCTCOG; using data from the Texas Department of Motor Vehicles and Department of Energy Alternative Fuels Data Center

www.dfwcleancities.org/evnt

JOIN US AT NATIONAL DRIVE ELECTRIC WEEK!

**RECORDS ARE
MADE TO BE
BROKEN.**

9.8.18 Grapevine Mills #texasEV

DriveElectricDFW.org



EPA SMARTWAY® TRANSPORT PROGRAM

Goal: Reduce Emissions, Improve Fuel Economy, and Increase Efficiency in the Freight Sector

Key Resources

- Assistance with EPA Tools or Joining Program**
- Meetings and Webinars**
- Fact Sheet**
- Partner Recognition and Support**

Get Involved!

- Become a SmartWay Partner**
- Include SmartWay Partnership in Contracts/
Purchasing Decisions**
- Purchase SmartWay-Verified Technologies or
SmartWay-Certified Vehicles**



www.nctcog.org/smartway

SAVING MONEY AND REDUCING TRUCK EMISSIONS (SMARTE)

Goal: Reduce Emissions and Fuel Costs for Trucking Industry
Providing Outreach and Education on Regional Initiatives

Key Resources

**One-on-One Company/Driver Outreach and
Technical Assistance**
Fact Sheet and Brochure
Information Folders for Drivers, Fleet Managers, Vendors
Vendor Network

Get Involved!

Invest in Efficient Technologies
Get Involved in DFW Clean Cities and Adopt Fleet Policy
Include Information in Driver Training
**Encourage Transportation Providers to
Get Involved**



www.nctcog.org/smart

ENGINE OFF NORTH TEXAS

Goal: Reduce Emissions from Vehicle Idling

Promoting Adoption of State Anti-Idling Rule

Providing Anti-Idling Outreach Materials

Incentivize Idle Reduction through Grant Funding

Support Fleet Anti-Idling Efforts

Key Resources

Template Documents

Brochures, Signs, Posters

Idling Vehicle Hotline: 877-NTX-IDLE

Get Involved!

Adopt State Anti-Idling Rule

Collaborate with Local Government

Create Idle-Free Zones

Educate/Engage Citizens

Implement Idle Reduction Within Fleet

Report Idling Vehicles



www.engineoffnorthtexas.org

CLEAN FLEET POLICY

Goal: Reduce Negative Air Quality Impacts of Fleet Operations

Reducing Emissions

Reducing Fuel Consumption

Partnering with NCTCOG/DFW Clean Cities

Educating Fleet Personnel

65 Adopting
Fleets as of March
2018

Key Resources

Template Policy

Template Idle Reduction Procedures

DFW Clean Cities Fleet Recognition

Funding Eligibility!!!

Eligible Clean Fleet Policy Entities

- Cities
- Counties
- School Districts
- Transit Agencies
- Airports
- Private Companies

Get Involved!

Adopt a Clean Fleet Policy

Adopt an Idle Reduction Procedure

Become a DFW Clean Cities Stakeholder



www.nctcog.org/fleetpolicy

CLEAN CONSTRUCTION SPECIFICATION

Goal: Minimize Diesel Equipment Emissions on Construction Sites

Key Resources

Template Contract Language

Public Works Construction Standards North Central Texas, 5th Edition

Grant Funding Assistance

Get Involved!

Include Emissions Language in Construction Contracts

Encourage Use of LEED Pilot Credit



www.nctcog.org/construction

GO SOLAR NORTH TEXAS

Goal: Increase Use of Solar Energy and Installed Capacity
Streamlining Regulations and Policies
Increasing Awareness

Key Resources

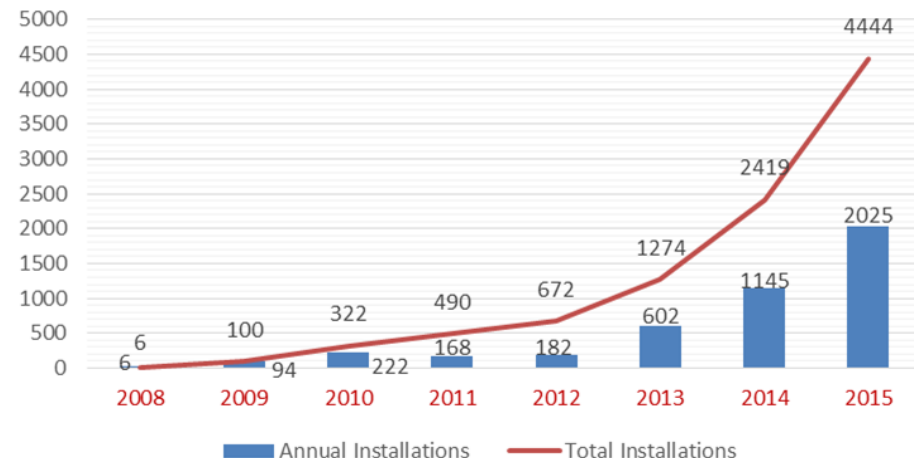
Best Management Practices
Cost Benefit Analysis
Meeting-in-a-Box
Template Regulatory Documents
Trainings and Videos
Website Clearinghouse

Get Involved!

Adopt Solar-Friendly Policies
Educate Property Owners/Citizens
Install or Purchase Solar



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



www.gosolarnorthtexas.org

Source: NTREG, 2016

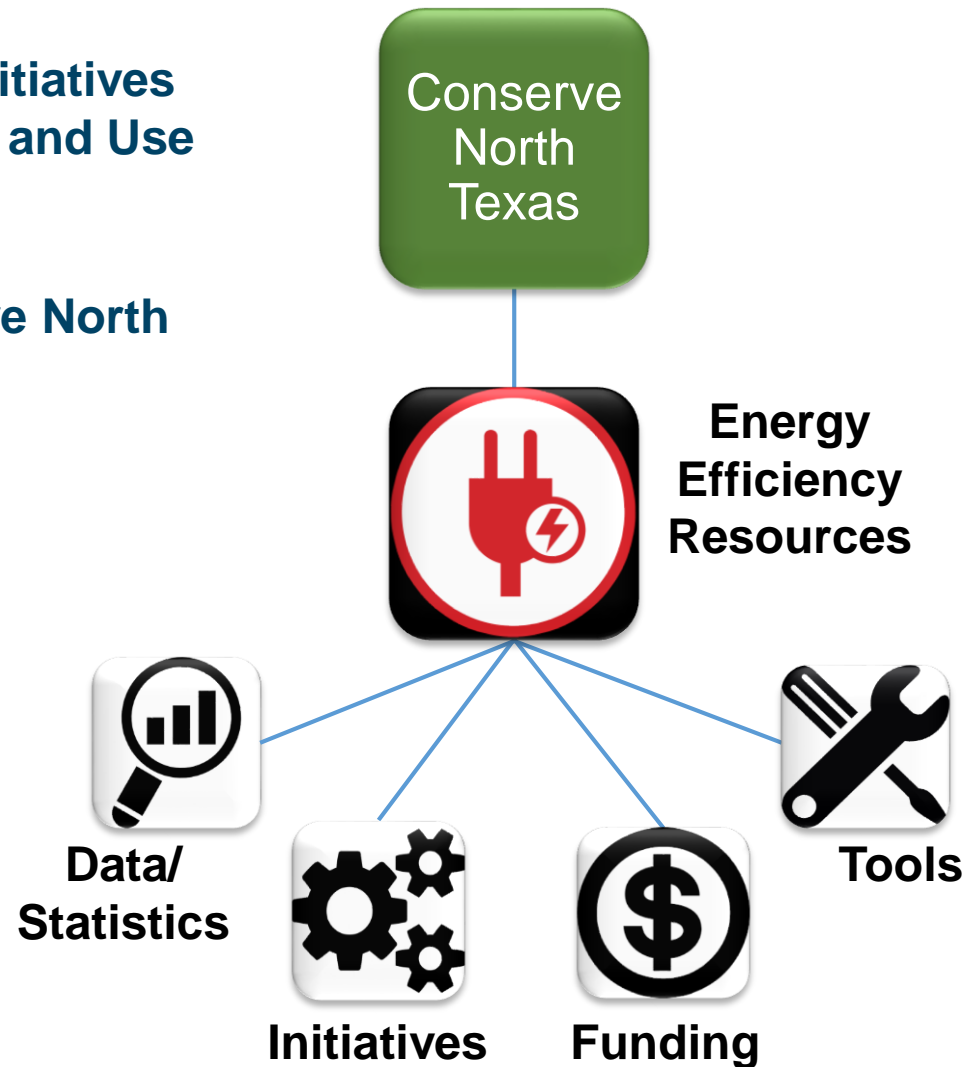
CONNECTING ENERGY EFFICIENCY RESOURCES

Issue

**Disaggregated Resources and Initiatives
Difficult for Stakeholders to Find and Use**

Proposed Solution

Website Clearinghouse: Conserve North Texas



www.conservenorthtexas.org

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

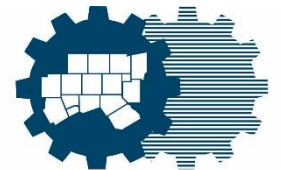
Provide Facilities for Employees that Walk or Ride a Bike to Work



NORTH TEXAS AIR QUALITY: OPPORTUNITIES FOR IMPROVEMENT



www.nctcog.org/airquality



North Central Texas
Council of Governments

AIRCHECKTEXAS DRIVE A CLEAN MACHINE

Goal: Provide Financial Assistance to Reduce Emissions from Highest-Polluting Vehicles

Up to \$600 for Emissions-Related Repairs

Up to \$3,500 to Replace Vehicles that are Over 10 Years Old or Fail the State Emissions Test



Key Resources

Dealership Education and Materials

Inspection Station Finder

Marketing Toolkit

Get Involved!

Promote the Program to Employees or Residents

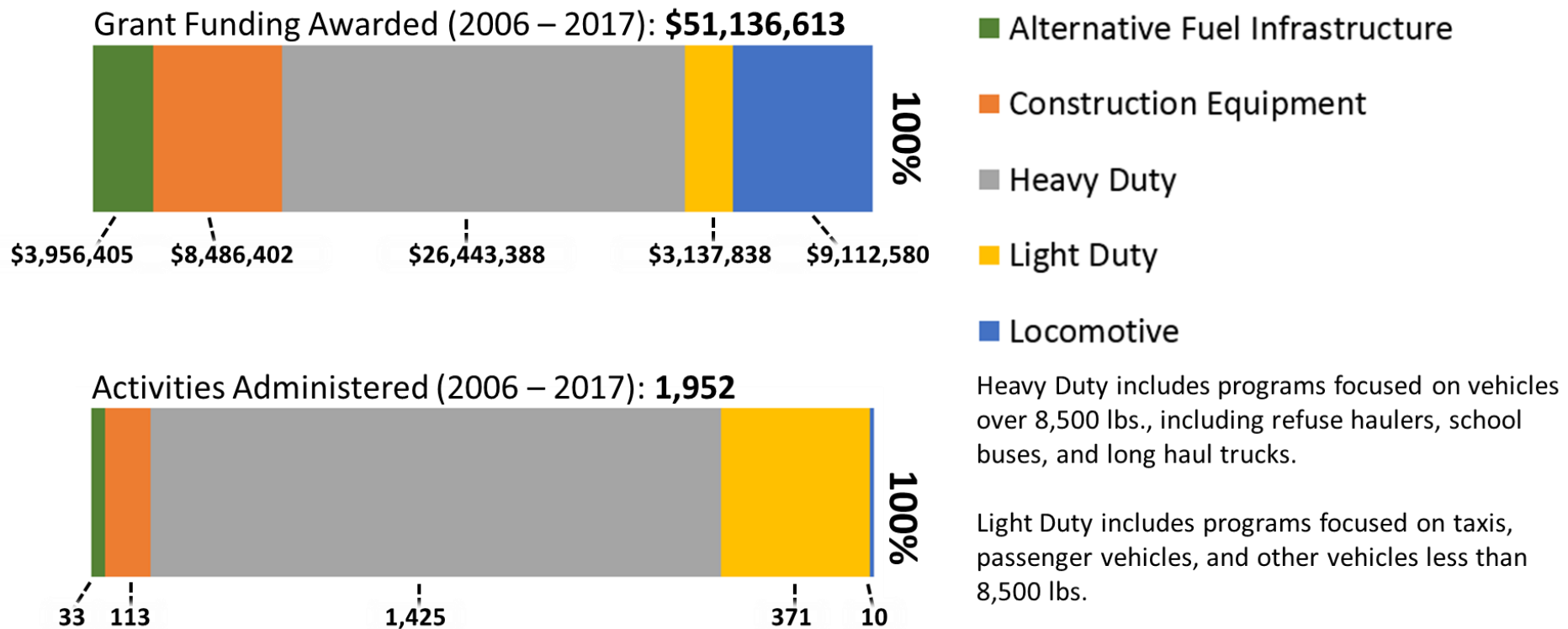


\$26 Million Available!

www.airchecktexas.org

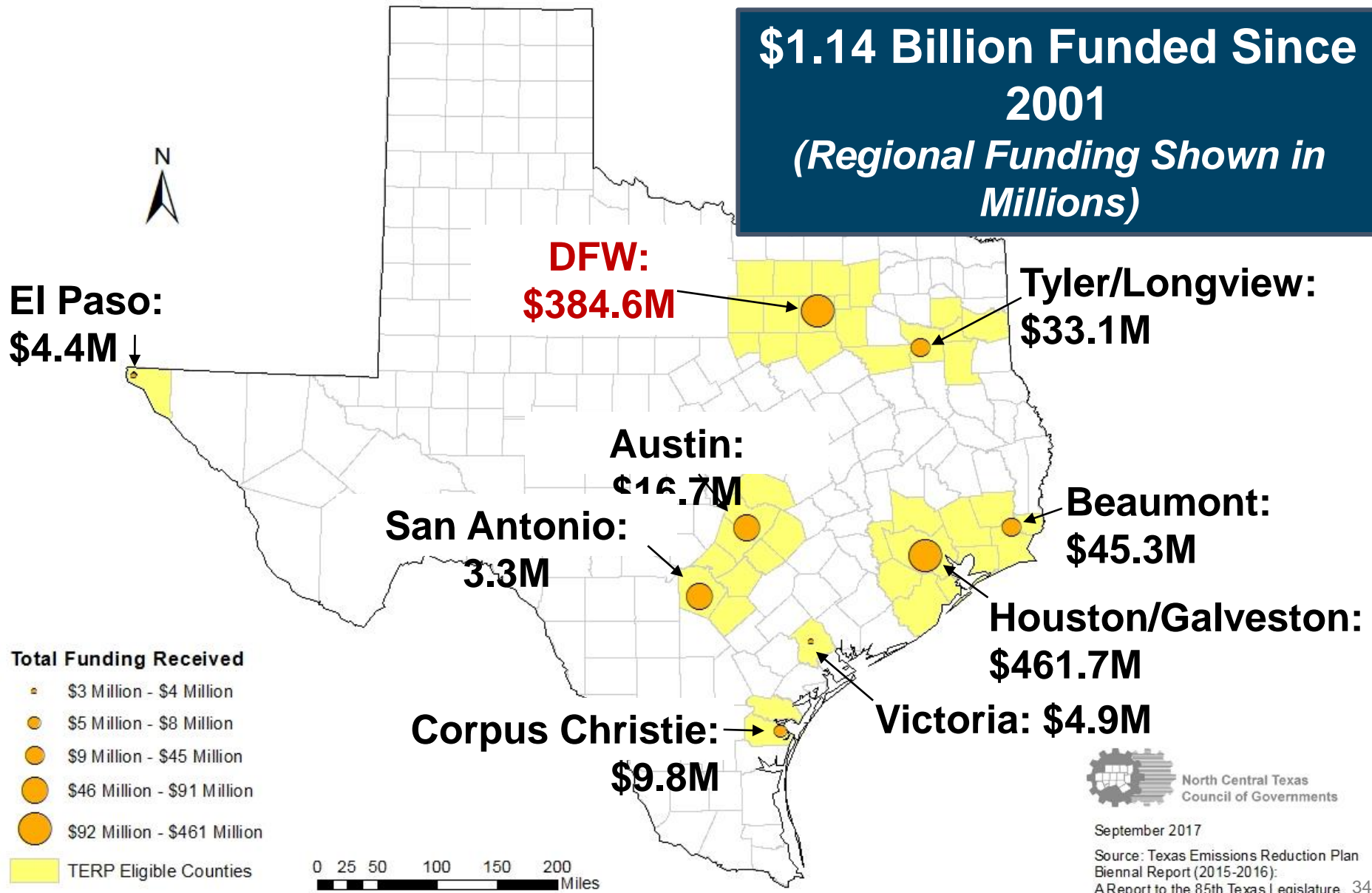
NCTCOG-DISTRIBUTED FUNDING

Total Vehicle/ Equipment/ Technology Grant Funding Awarded and Activities Administered by Activity Type (2006-2017)*



**Does not include funding distributed for private passenger vehicles through the AirCheckTexas Drive a Clean Machine Program. Portion of total grant funds awarded to NCTCOG are used for administrative costs. Last updated spring 2018.*

TEXAS EMISSIONS REDUCTION PLAN



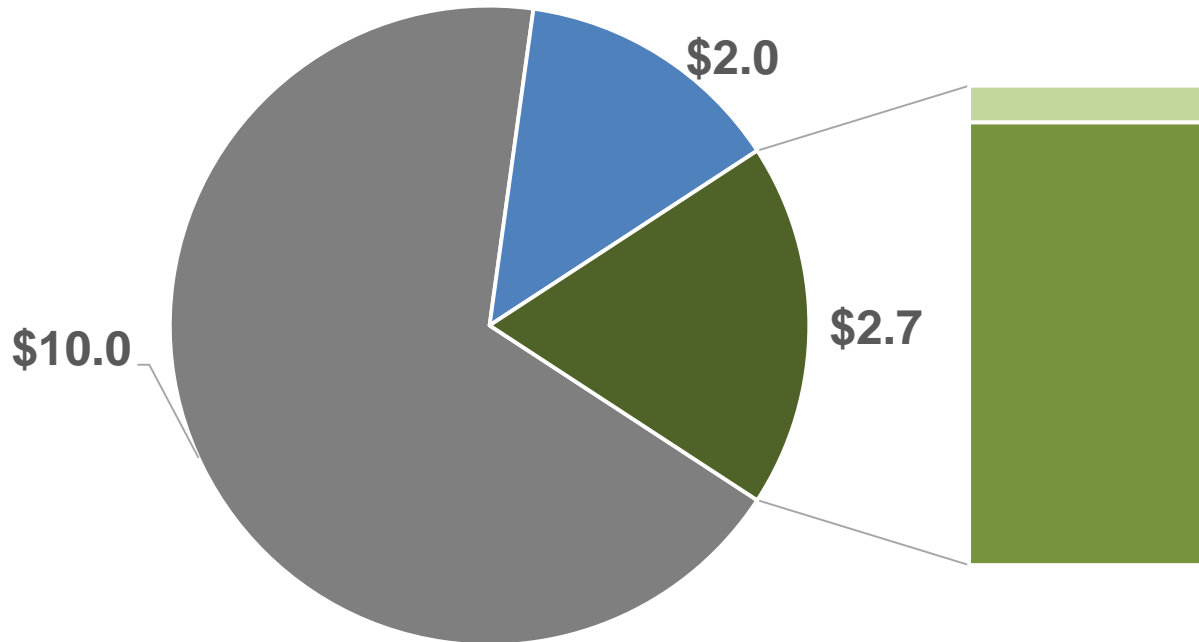
COMING SOON: VOLKSWAGEN SETTLEMENT

Total Settlement To Date: \$14.7 Billion

Zero Emission Vehicle (ZEV) Investment - Managed By Electrify America

Environmental Mitigation Trust (EMT) - Distributed To States

Settlement Breakdown (\$ in Billions)



*Texas' Share:
\$209 Million*

- Vehicle Buyback and Modification
- ZEV Investment
- Environmental Mitigation Trust

CLEAN VEHICLE FUNDING OPPORTUNITIES

Air Quality and Transportation Funding & Resources



Funding for projects that address air quality, such as clean vehicle projects, are available from a number of sources, including state and federal agencies, non-profit entities, and private industry.



Stay Informed!

Sign Up for
Email Alerts!

Already Received Grant Funding from NCTCOG?



Agreements & Forms



Usage Reporting

Funding for Vehicle

Program / Incentive Description	Eligible Vehicles	Funding
AirCheckTexas Drive a Clean Machine Program <i>Financial Assistance for Light-Duty Vehicles that Fail Emissions Testing or are over 10 Years Old</i>	Passenger Vehicles	\$600 Up to \$1,000 Reimbursement
Federal Electric Vehicle Tax Credit <i>Tax Credit for Purchase of Electric Vehicle (EV)</i>	EV Passenger Vehicles and Light Trucks	\$2,500 to \$7,500 P
Fleets for the Future <i>Discounted Prices through Cooperative Procurement to Purchase Alternative Fueled Vehicles and Related Infrastructure</i>	Light, Medium and Heavy Duty Vehicles	
IC Bus Grant Program <i>Grants for New Purchases of Propane-Powered CE Series School Buses</i>	School Buses	\$5,000

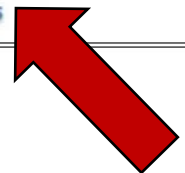
See what NCTCOG Has Already Funded and Sign Up for Email Updates!



Funding Opportunity
Archive



Sign-Up for Email
Updates



www.nctcog.org/aqfunding

FOR FURTHER INFORMATION

Lori Clark
Program Manager
817-695-9232
lclark@nctcog.org

www.nctcog.org/airquality

Find us on social media @nctcogtrans



**North Central Texas
Council of Governments**