

NORTH TEXAS AIR QUALITY UPDATE

Fort Worth Chamber's Environmental Committee Meeting

August 27, 2014

Chris Klaus

**North Central Texas Council of Governments
Transportation Department**

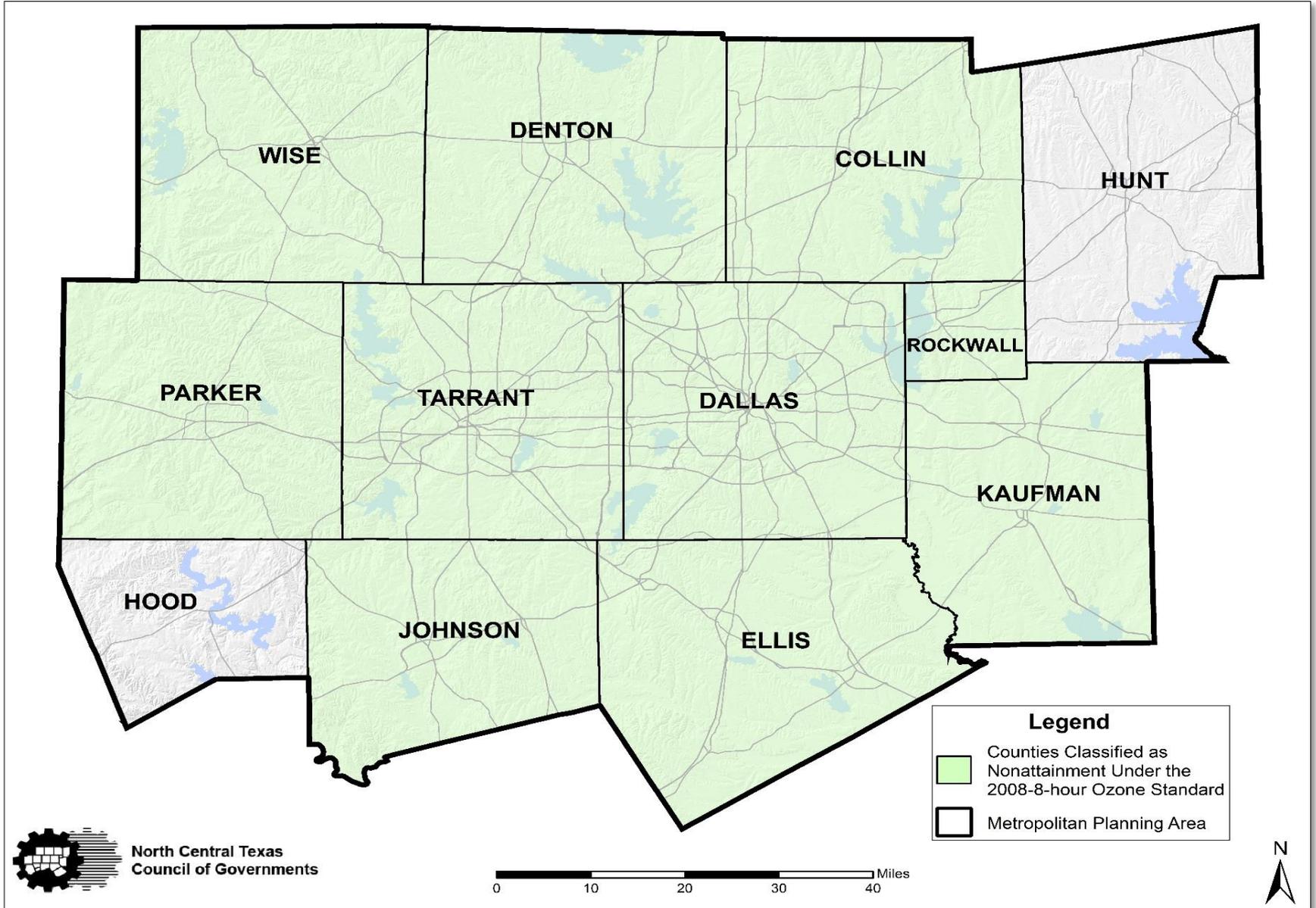


**North Central Texas
Council of Governments**



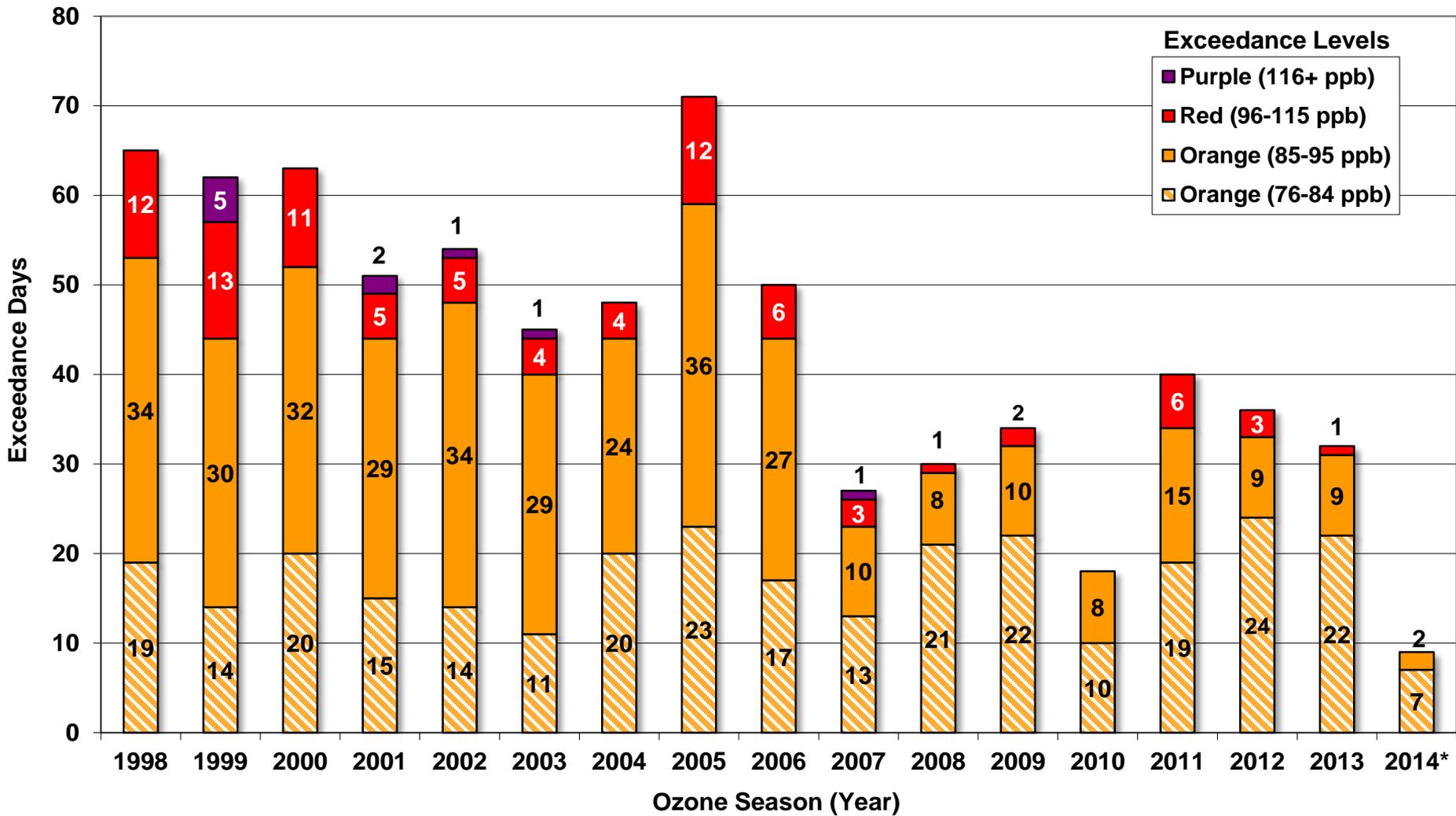
NORTH TEXAS AIR QUALITY UPDATE

Ozone Nonattainment Area



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8-Hour Ozone Exceedance Days



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 8/25/2014

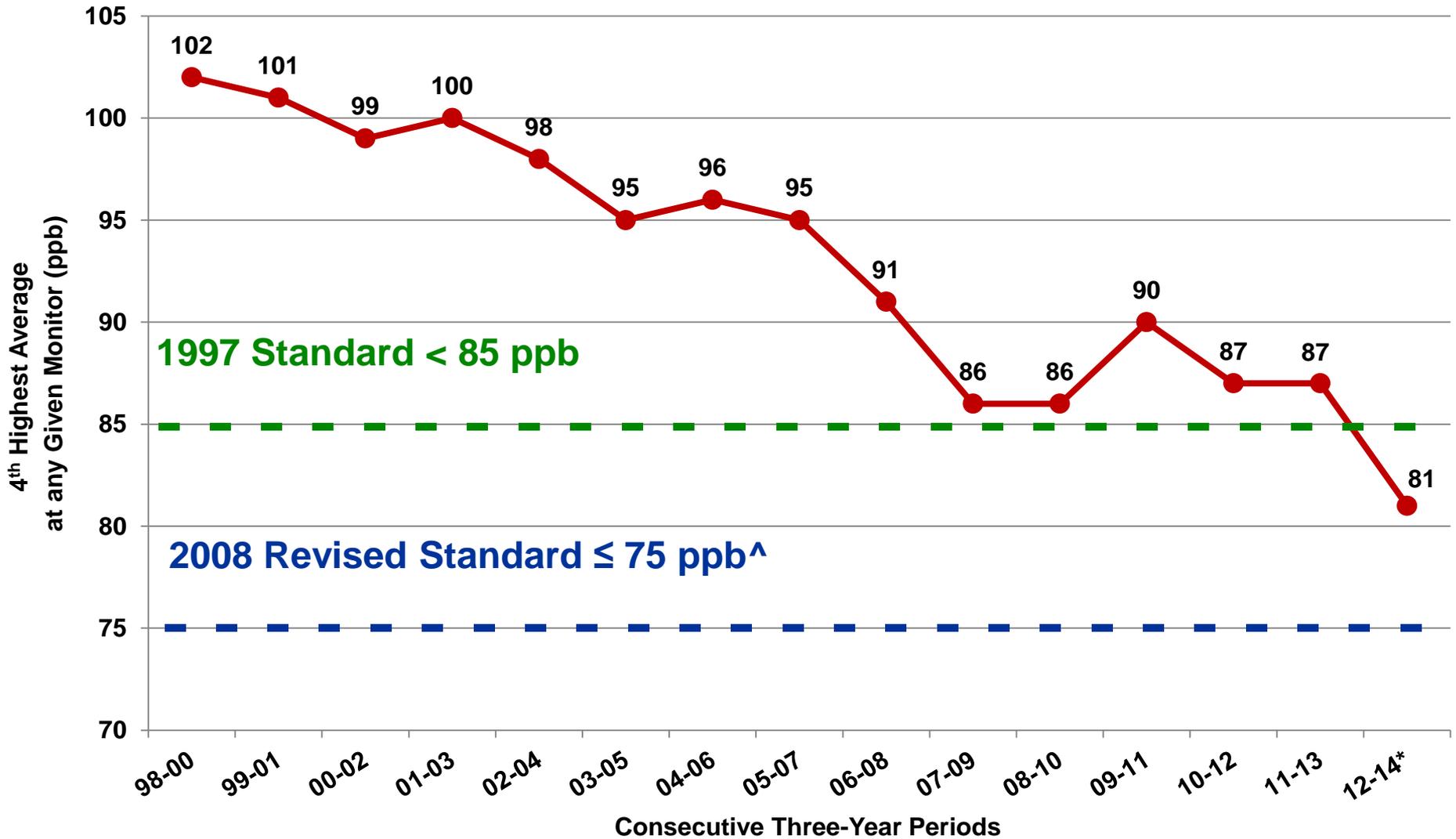
Note: The 2009-2013 data has been certified by TCEQ, and is currently undergoing review by the EPA for concurrence.

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

 = 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)

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8-Hour Ozone Historical Trends



^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 equal to or less than 75 parts per billion (ppb).

*Not a full year of data, current as of 8/25/2014

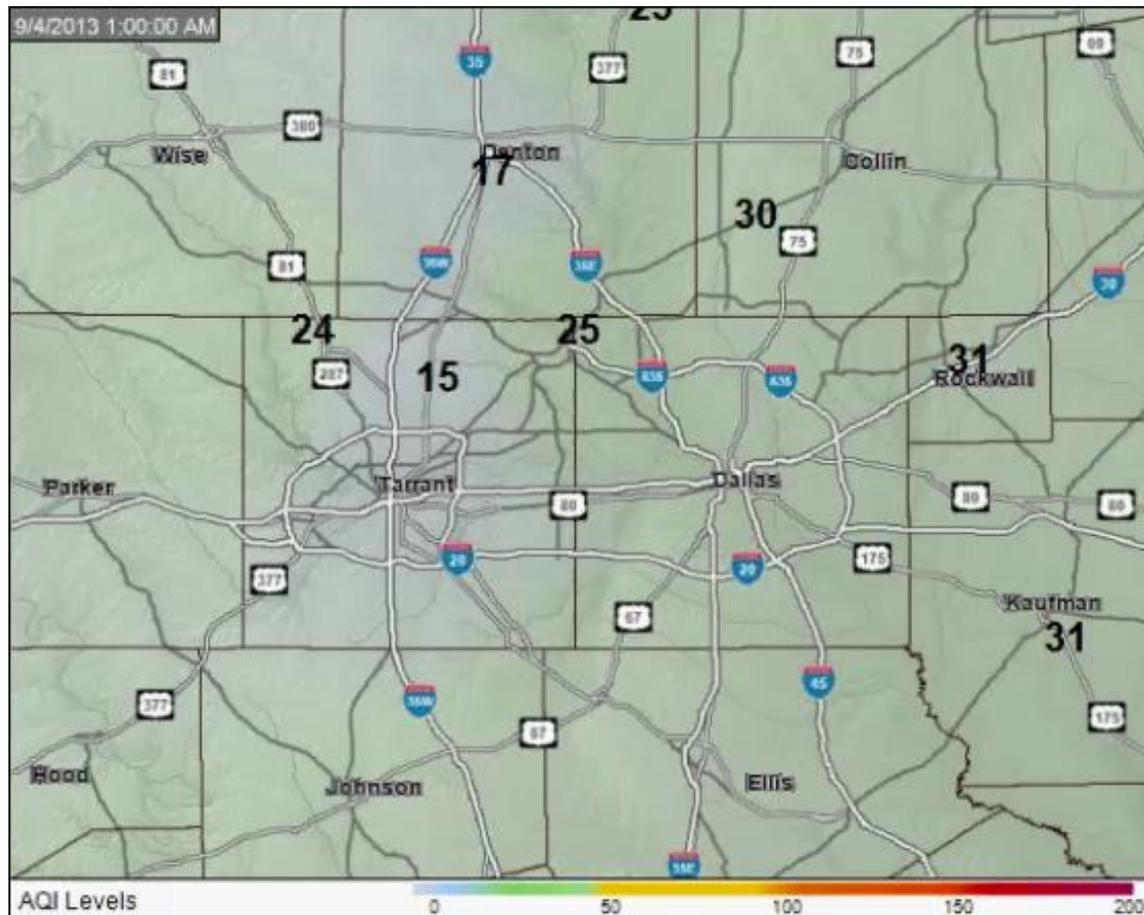
Note: The 2009-2013 data has been certified by TCEQ, and is currently undergoing review by the EPA for concurrence.

Source: NCTCOG TR Dept

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2013 Highest Exceedance Day

(September 4th – 100 ppb at Fort Worth Northwest)



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Emission Estimates by Source Category

Source Category Description	Summer Weekday Emissions (tpd)		
	2006 NO _x	2018 NO _x	% Change
On-Road	265.87	113.36	-57%
Non-Road	88.75	39.87	-55%
Area Sources	29.02	30.76	6%
Off-Road – Locomotives	29.97	18.90	-37%
Off-Road – Airports	12.78	13.06	2%
Oil and Gas – Production	61.84	7.15	-88%
Oil and Gas – Drill Rigs	18.23	2.82	-85%
Point – Oil and Gas	11.53	16.37	42%
Point – Electric Utilities	9.63	16.91	76%
Point – Cement Kilns	22.08	17.64	-20%
Point – Other	14.31	6.62	-54%
Total	564.01	283.46	-50%

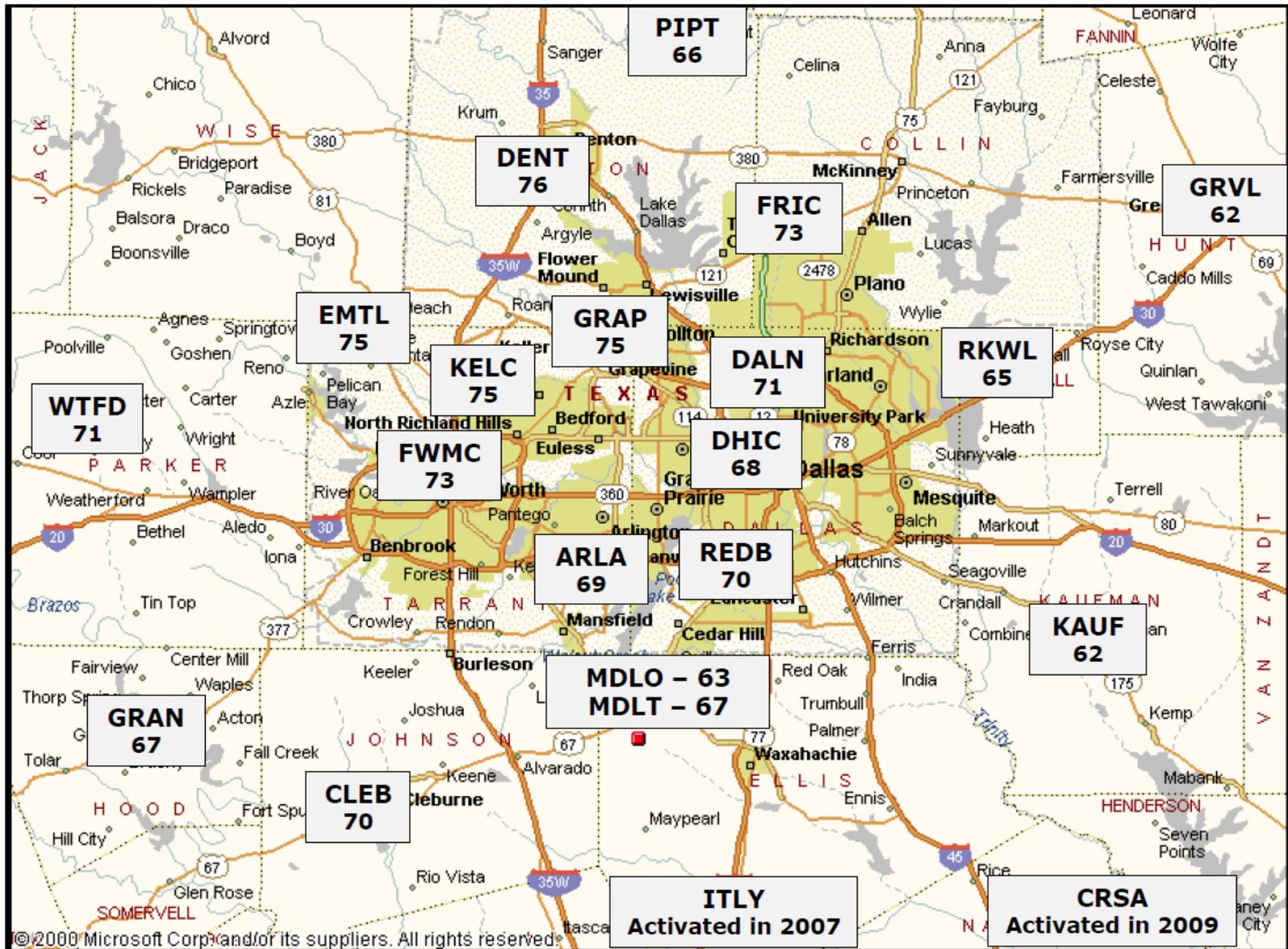
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Emission Estimates by Source Category

Source Category Description	Summer Weekday Emissions (tpd)		
	2006 VOC	2018 VOC	% Change
On-Road	113.15	55.63	-51%
Non-Road	63.84	32.80	-49%
Area Sources	290.46	284.94	-2%
Off-Road – Locomotives	1.72	0.93	-46%
Off-Road – Airports	4.46	3.55	-20%
Oil and Gas – Production	43.72	23.79	-46%
Oil and Gas – Drill Rigs	1.16	0.21	-82%
Point – Oil and Gas	21.82	26.02	19%
Point – Electric Utilities	1.03	4.44	331%
Point – Cement Kilns	1.94	0.78	-60%
Point – Other	25.65	20.43	-20%
Total	568.95	453.52	-20%

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2018 Future Ozone Design Values (ppb)



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2015 SIP Development

- April 20, 2014 = Deadline for Submitting Ideas for Reasonably Available Control Measures (RACM)**
- August 8, 2014 = NCTCOG Submitted Local On-Road and Off-Road Initiatives for Inclusion into the SIP as Voluntary Measures**
- May–August 2014 = TCEQ Technical Work Finalized**
- December 2014 = Public Comment Period Begins**
- January 2015 = Public Hearings**
- June 2015 = TCEQ Commissioners Adopt the SIP**
- July 20, 2015 = Deadline for State to Submit SIP to EPA**

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NCTCOG Voluntary Measures

Bicycle/Pedestrian Projects (341 miles)

Grade Separation Projects (98 locations)

Managed/High Occupancy Vehicle Lanes (375 miles)

Intersection Improvement Projects (1,351 locations)

Park and Ride Projects (30,135 spaces)

Rail Transit Projects (293 miles)

Vanpool Projects (385 vanpools)

Truck Lane Restriction Program (416 miles)

Regional Traffic Signal Retiming Program (1,793 signals)

Intelligent Transportation System (62% coverage)

Sustainable Development (\$157.5 million to 100 projects)

Congestion Management Process

Transportation Safety Program

Public Education and Communication

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NCTCOG Voluntary Measures

Clean Fleet Vehicle Policy (104 entities)

On-Road Heavy-Duty Diesel Replacement and Repower Project (101 vehicles)

Clean Construction Equipment Upgrade Project (20 activities)

Clean Fleets North Texas: Recovery Act Project (142 vehicle activities)

Clean School Bus Program (76 vehicles)

Diesel Idling Reduction Program (140 electrified spaces, 147 auxiliary power units, etc.)

Alternative Fuel & Advanced Technology Investments Project (290 vehicles, 11 refueling stations)

Clean Construction Demonstration Project

Electric Vehicles North Texas

Diesel Inspection and Maintenance (I/M) Pilot Program

North Texas Car Care Clinics

Regional Emissions Enforcement Program

Regional Smoking Vehicle Program

Locally Enforced Idling Restrictions (4 counties, 26 municipalities)

Pay-As-You-Drive Automobile Insurance Pilot Program

Regulated Fleet Program

SmartWaySM Transport Partnership

(73 auxiliary power units, rolling resistance tires for 146 vehicles, 185 trailer side skirts, 100 cetane enhancers)

Solar Ready II Program

North Texas Optimization of Airspace and Procedures in the Metroplex (OAPM)

AirCheck Texas Repair and Replacement Program

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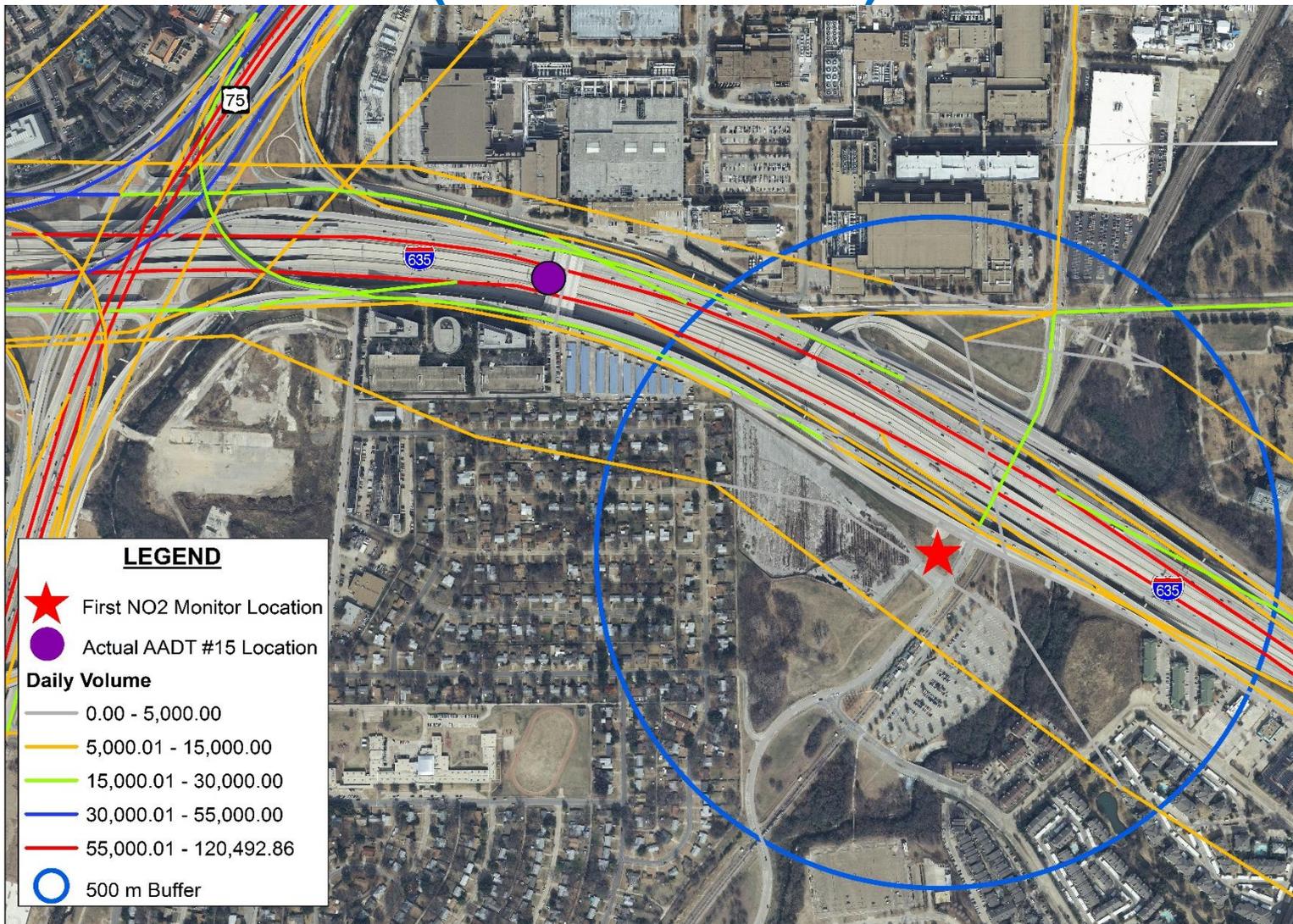
NO₂ Monitor Siting - Background

- February 2010 = Promulgation of Hourly NO₂ Standard
Hourly Standard = <100 ppb**
- March 2013 = Environmental Protection Agency (EPA)
Revised Deadline for Near-Road NO₂
Monitoring Network in Phases Between
January 1, 2014, and January 1, 2017**
- March 2014 = TCEQ Begins Installation of First Near-Road
NO₂ Monitor in Dallas-Fort Worth (DFW)**

**DFW is required to have two near-road monitors operational by
January 2015.**

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First NO₂ Monitor Site Location (IH-635 & TI Blvd)



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Second NO₂ Monitor Site Location (IH-20 East of South Adams St.)



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Air North Texas

A public awareness campaign that encourages residents of North Texas to make clean air choices.

Composed of a coalition of regional organizations committed to improving the air in North Texas.

Air North Texas aims to generate a consistent region-wide brand that promotes behavioral and lifestyle changes that impacts our health and the environment.



visit www.airnorthtexas.org



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Air North Texas Partners

American Lung Association – DFW Region

City of Anna

City of Arlington

City of Dallas

City of Denton

City of Fort Worth

City of Grand Prairie

City of Grapevine

City of Kennedale

City of Mesquite

City of Plano

City of North Richland Hills

City of Richardson

Dallas Museum of Art

DART

DCTA

Health and Wellness Alliance for Children

Hood County

*Insta-Brite Visual Coating Technologies

NCTCOG

*The North Texas Commission

Dallas County

Parker County

Tarrant County

TxDOT – Dallas

TxDOT – Fort Worth

U.S. Green Building Council – North Texas Chapter

University of North Texas Health Science Center

University of Texas at Arlington

The-T



***Encourage Business and Chamber Partners**

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Strategies for Business and Governments and Opportunities

Businesses/Governments

- Move construction activities to evening hours
- Postpone mowing to a day without an Air Pollution Action Day Alert
- Limit testing of emergency generators
- Coordinate on-site employee lunches
- Use audio and video conference call technology

The screenshot shows the 'Be Air Aware' website for individuals. The page is titled 'Individuals' and includes a navigation menu with 'contact us', 'help', 'join us', and 'events'. The main content area is titled 'Be Air Aware' and contains the following text: 'Join businesses, local governments and other North Texans in committing to Be Air Aware and take specific actions on Air Pollution Action (Watch) Days. Review the list below and select the strategies you currently and intend to implement during the critically important Air Pollution Action (Watch) Days. High ozone levels can cause serious health problems, and inhaling ground-level ozone is especially dangerous for people who have asthma or respiratory problems. Be Air Aware to protect health and take action to reduce air pollution. Better air quality poses fewer health risks to residents and ensures the continued economic success of the region. Those who commit to Be Air Aware will be notified by e-mail whenever an Air Pollution Action (Watch) Day Alert is issued. These are usually issued a day before the potential high-ozone day. Parents and teachers can visit the "Just for kids" web page for ideas on how children can participate.'

Below the text, there are two columns of checkboxes under the headings 'Already doing & plan to continue' and 'Plan to start doing this year'. The 'Plan to start doing this year' column includes the following items:

- Work from home.
 - > Learn more by title, [never saved at ToxFairings.com](#)
- Carpool. Try to have three or more people per vehicle.
 - > ToxFairings.com offers ride-sharing and resources to get started
- Reschedule off-site meetings or utilize conference call technology.
- Bring lunch to work or carpool to lunch.
 - > Learn more at ToxFairings.com and by title, [never saved](#)
- Use mass transit.
 - > Visit [airquality.com](#) and by title, [never saved at ToxFairings.com](#)
- Bicycle or walk.
 - > Ecoing and walking routes by miles, [never saved at ToxFairings.com](#)
- Avoid idling, including during start up. Newer vehicles don't need warm-up time.
 - > Engine Off team [here](#)
- Avoid unnecessary trips.
- Drive the most fuel-efficient vehicle when driving is necessary.
 - > Check out [efficiency](#)
- Maintain constant driving speed by avoiding quick accelerations and hard braking.
- Conserve water to conserve electricity. (Pumping water requires large amounts of electricity)
 - > [Save North Texas Water](#)
- Postpone mowing to a day without an air pollution watch or warning.
 - > [What are air pollution watches/warnings?](#)
- Limit use of recreational vehicles.
- Avoid outdoor burning, including grilling and burning trash.

Sign up for Air Pollution Action Day Alerts and monthly *Clean Air Mails* at <http://airnorthtexas.org/join.asp>

Participate in Clean Air Action Day by committing to do at least one thing to help improve air quality

- Held the first Friday of Summer
 - Next Clean Air Action Day - June 26, 2015
- Log your commitment at www.airnorthtexas.org/cleanair.asp

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2014 Clean Air Action Day Results



- In 2014, Clean Air Action Day had the most participants to date
- Top five actions selected were:
 1. Take lunch to work
 2. Maintain vehicle
 3. Observe speed limit
 4. Reduce idling
 5. Combine trips



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Contact

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