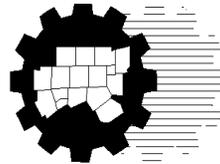


NORTH CENTRAL TEXAS AIR QUALITY UPDATE

**Greater Dallas Chamber
Environmental Committee**

September 30, 2009



Mike Eastland, Executive Director
North Central Texas Council of Governments

AIR QUALITY UPDATE

National Ambient Air Quality Standards

Criteria Pollutants

Sulfur Dioxide

Carbon Monoxide

X: Ozone

X: Lead

Particulate Matter

Nitrogen Oxides

**Future: Greenhouse Gas Emissions
(i.e. Carbon Dioxide)**

AIR QUALITY UPATE

Ozone (O3) Standard History

1990 Clean Air Act – Established 5-Year Review Cycles

1-Hour Standard (125 ppb)

1996 = VOC

NOx Waiver

1999 = NOx + VOC

2007 = NOx (met)

8-Hour Standard (85 ppb)

2010 = NOx (ongoing)

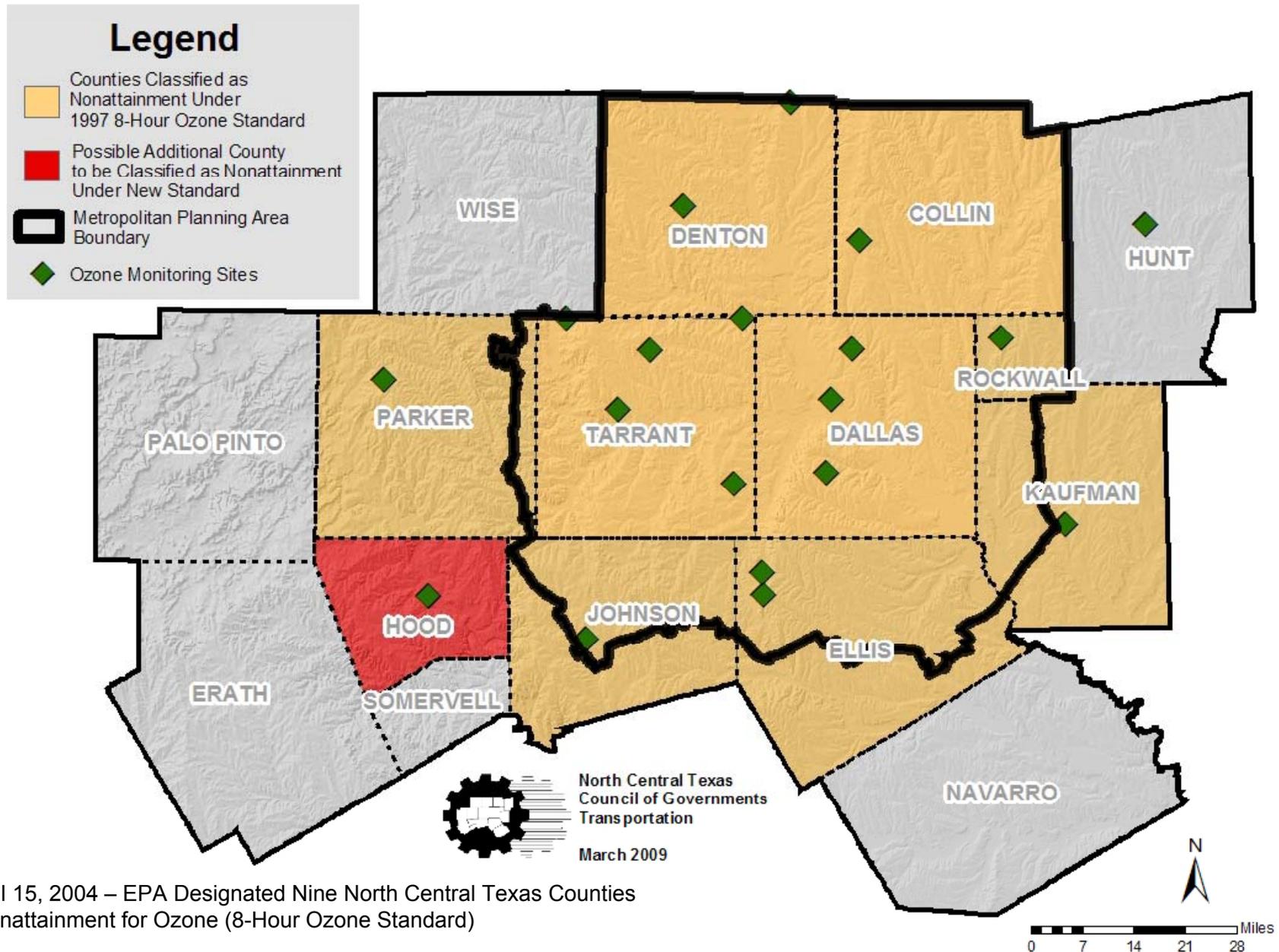
8-Hour Standard (75 ppb)

Attainment Year = 2013 to 2030

Final Designations by June 2010

AIR QUALITY UPATE

8-Hour Ozone Nonattainment Area*



* April 15, 2004 – EPA Designated Nine North Central Texas Counties Nonattainment for Ozone (8-Hour Ozone Standard)

AIR QUALITY UPDATE

Ozone (O₃) Reconsideration

Announced September 16, 2009

Reconsidering 2008 Ozone NAAQS (75 ppb)

Propose Any Needed Revisions by December 2009

Final Decision by August 2010

Final Designations by August 2011

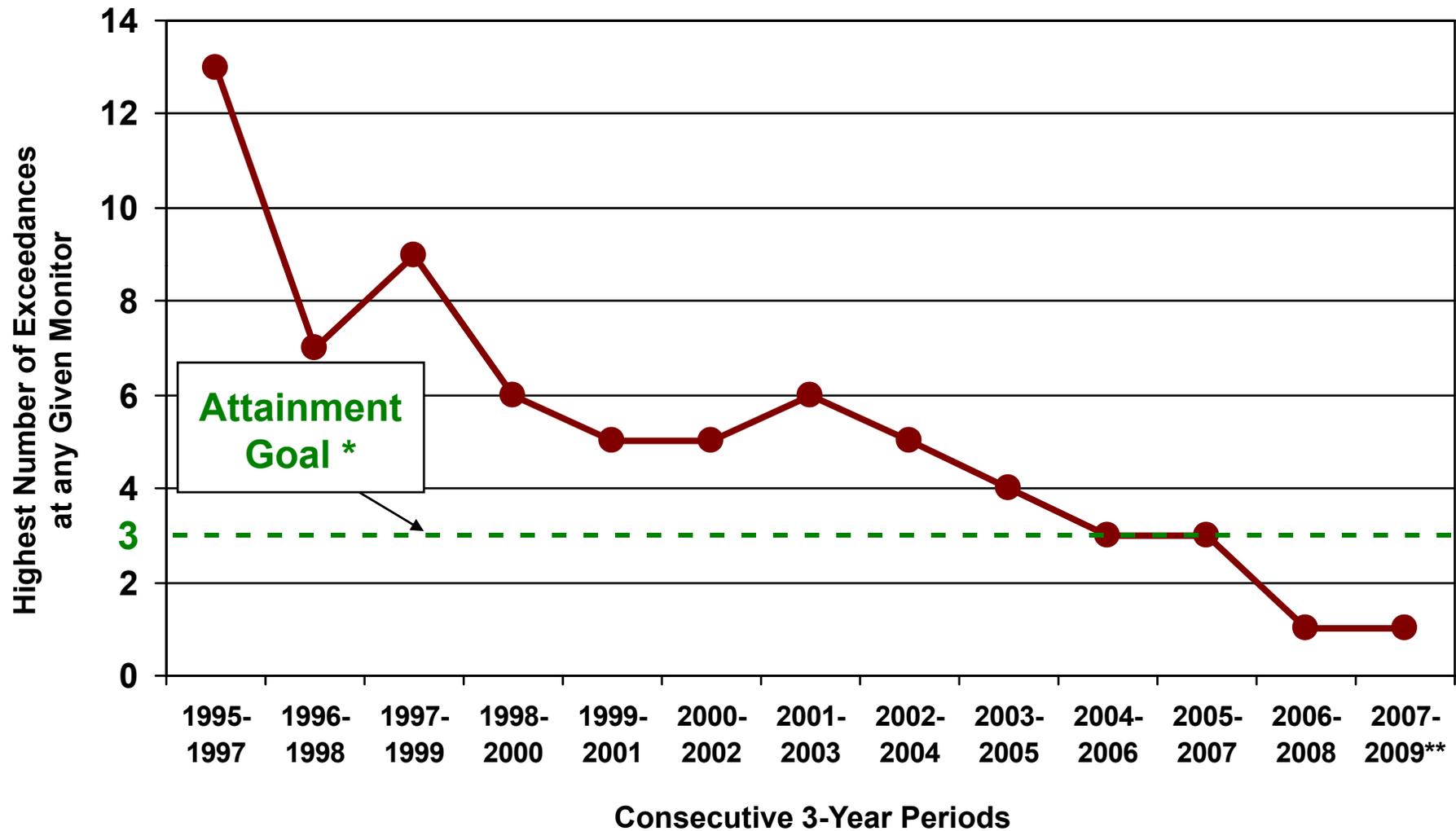
State Implementation Plans (SIP) Due August 2013

EPA Will Propose To “Stay” The 2008 Standards

Clean Air Scientific Advisory Committee: 60 ppb – 70 ppb

AIR QUALITY UPDATE

1-Hour Ozone Historical Trends

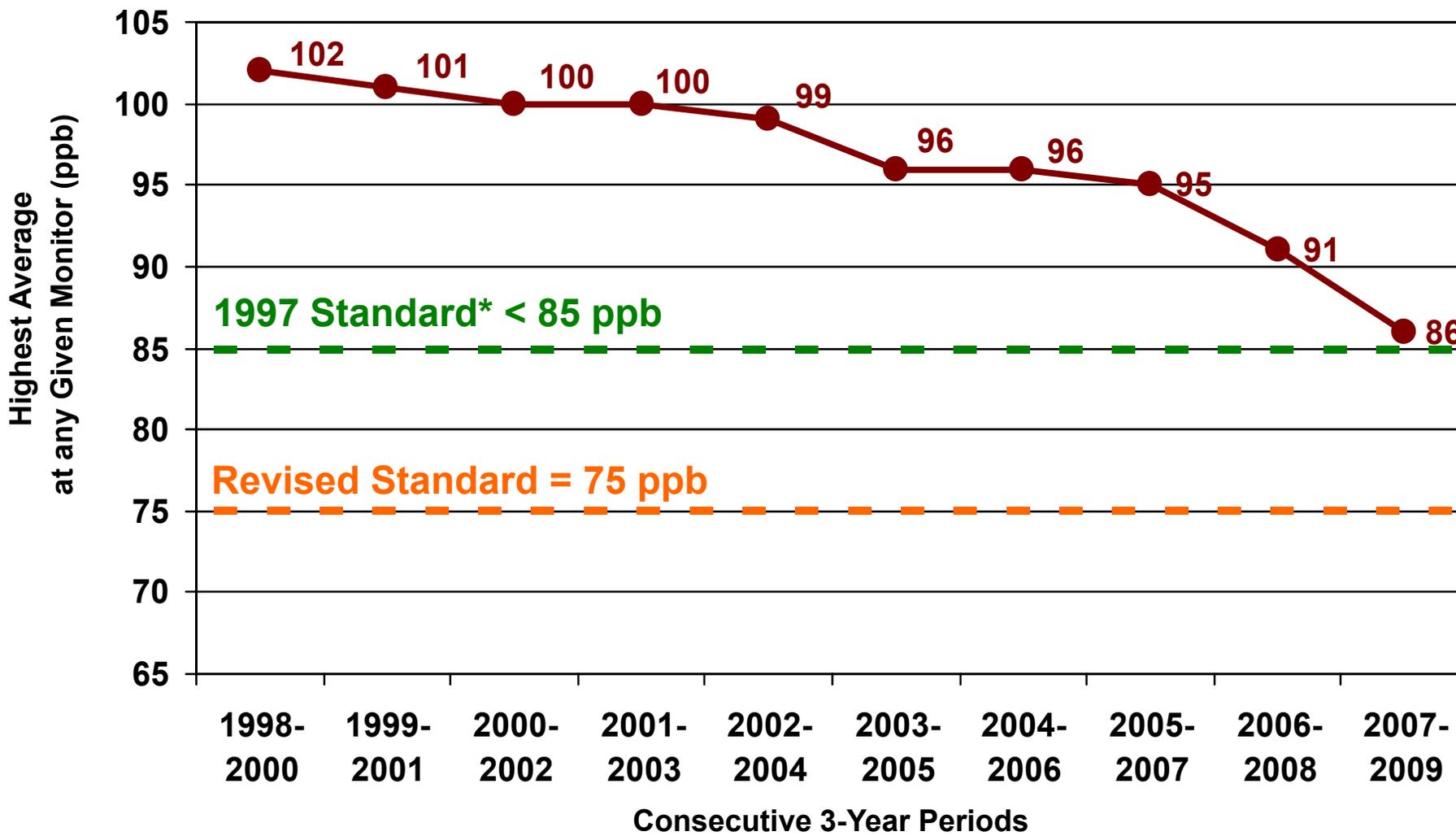


* Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when there are no more than 3 exceedances per monitor within a consecutive 3-year period. An exceedance occurs when the ozone concentration \geq 125 parts per billion averaged over a one hour period.

** Not a full year of data. Current as of August 2009

AIR QUALITY UPDATE

8-Hour Ozone Historical Trends



* 2010 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).

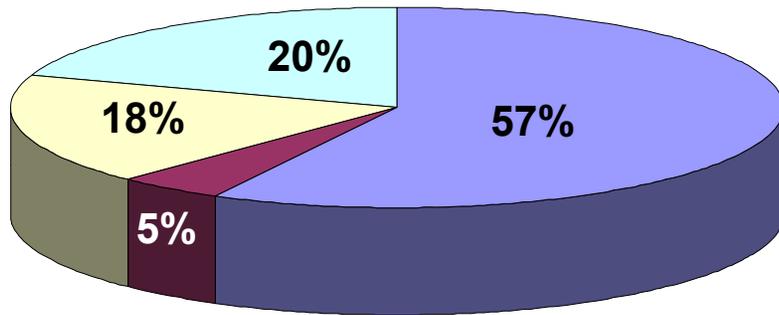
Year 2009 not a full year of data. Current as of August 2009

Source: NCTCOG TR Dept

AIR QUALITY UPDATE

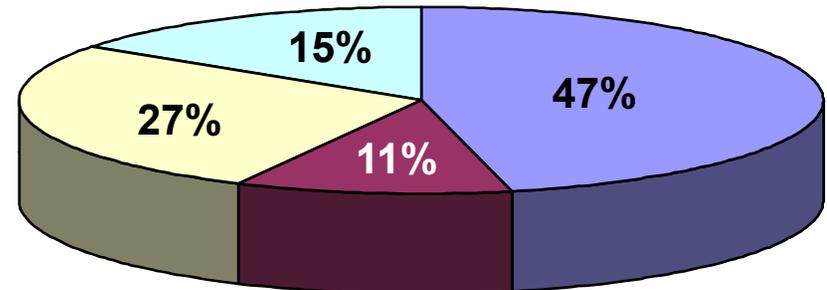
Past, Present, Future Projections

1999



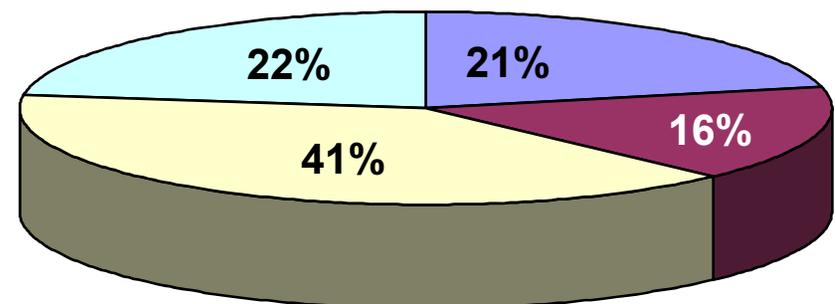
Source: TCEQ; DFW SIP, pg. B-5

2009

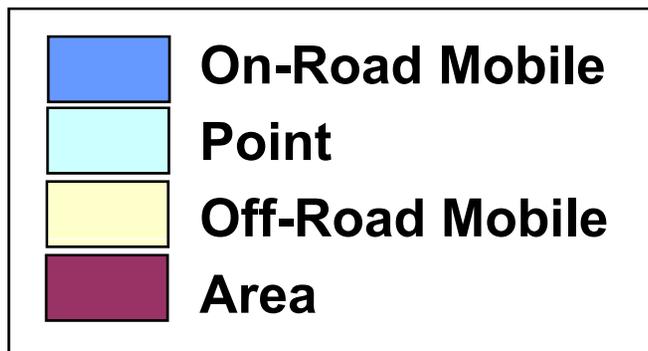


Source: TCEQ; DFW SIP, pg. B-7

2019



Source: NCTCOG Forecast



AIR QUALITY UPDATE

Programs Minimizing Transportation Impacts



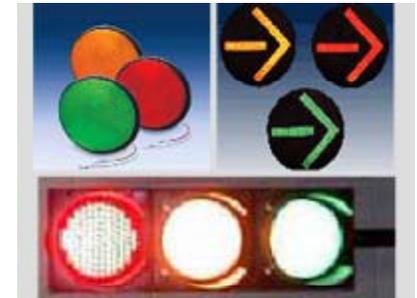
Don't Choke, Call #SMOKE



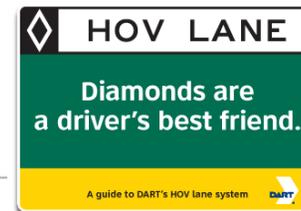
northcentral.texas.clean.school.bus.program



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AIR QUALITY UPDATE

Lead (Pb)

Original 1978 Standard = 1.5 micrograms/cubic meter ($\mu\text{g}/\text{m}^3$)

New 2008 Standard = 0.15 $\mu\text{g}/\text{m}^3$

TCEQ Proposed Nonattainment Area

Portion of Collin County Located in Frisco

Exide Technologies Frisco Battery Recycling Plant (Exide)

Highest Reading From 2006-2008: 0.23 $\mu\text{g}/\text{m}^3$

Designation Recommendation Due To EPA By October 15, 2009

SIP To Be Developed

AIR QUALITY UPDATE

Particulate Matter (PM)

PM2.5

24-hour standard: 35 $\mu\text{g}/\text{m}^3$

Attainment for this standard is reached when, at each monitor, the 3-year average of the 98th percentile 24-hour concentrations does not exceed 35 $\mu\text{g}/\text{m}^3$.

Annual standard: 15 $\mu\text{g}/\text{m}^3$

Attainment for this standard is reached when the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors has not exceed 15.0 $\mu\text{g}/\text{m}^3$.

PM10

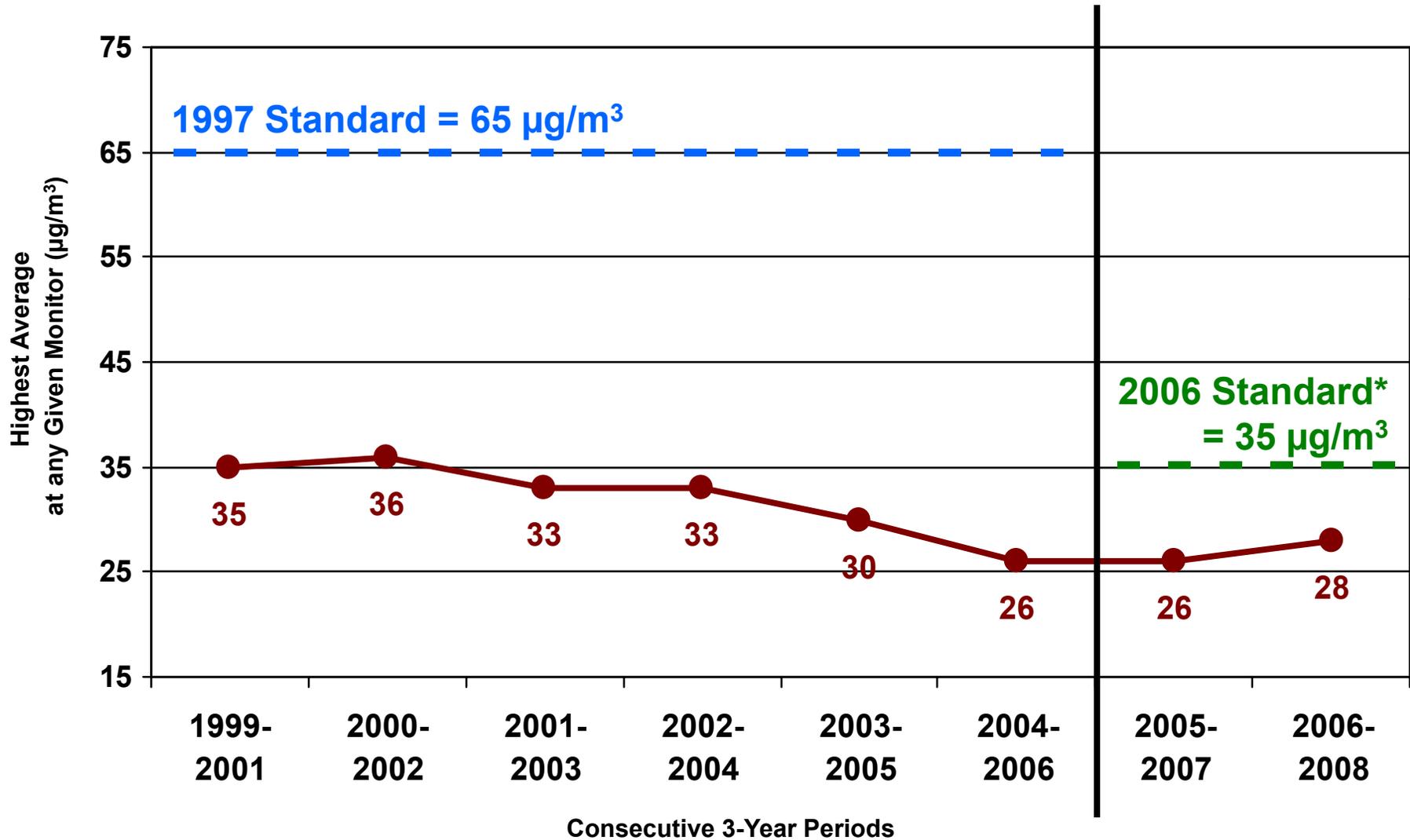
150 $\mu\text{g}/\text{m}^3$

Attainment is reached when there is not more than one exceedance per year on an average over 3 years.

$\mu\text{g}/\text{m}^3$ = micrograms/cubic meter

AIR QUALITY UPDATE

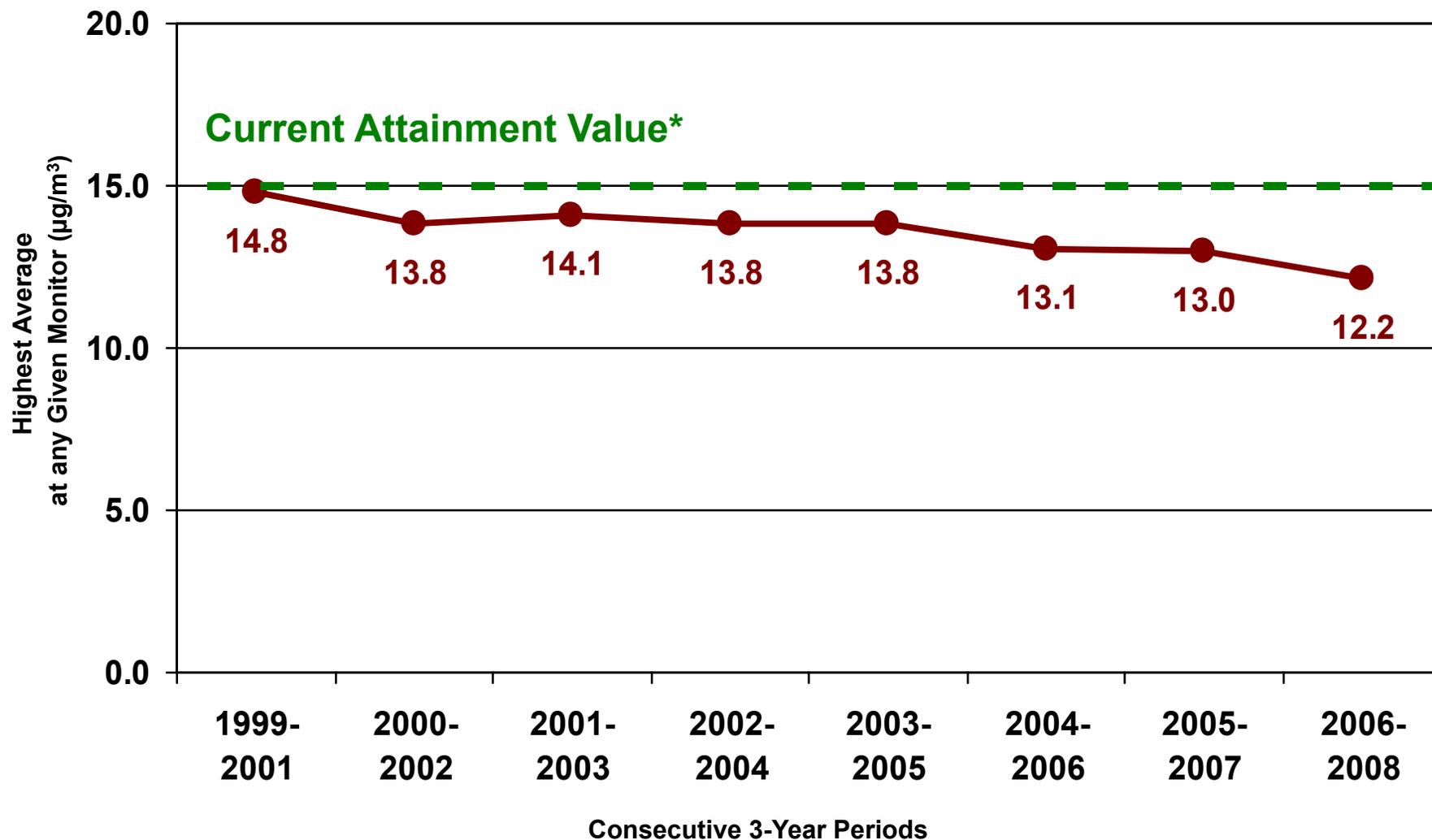
PM2.5 Historical Trends – 24-Hr Average



* 2006 Standard - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the 3-year average of the 98th percentile of 24-hour concentrations does not exceed 35 µg/m³.

AIR QUALITY UPDATE

PM2.5 Historical Trends – Annual Mean

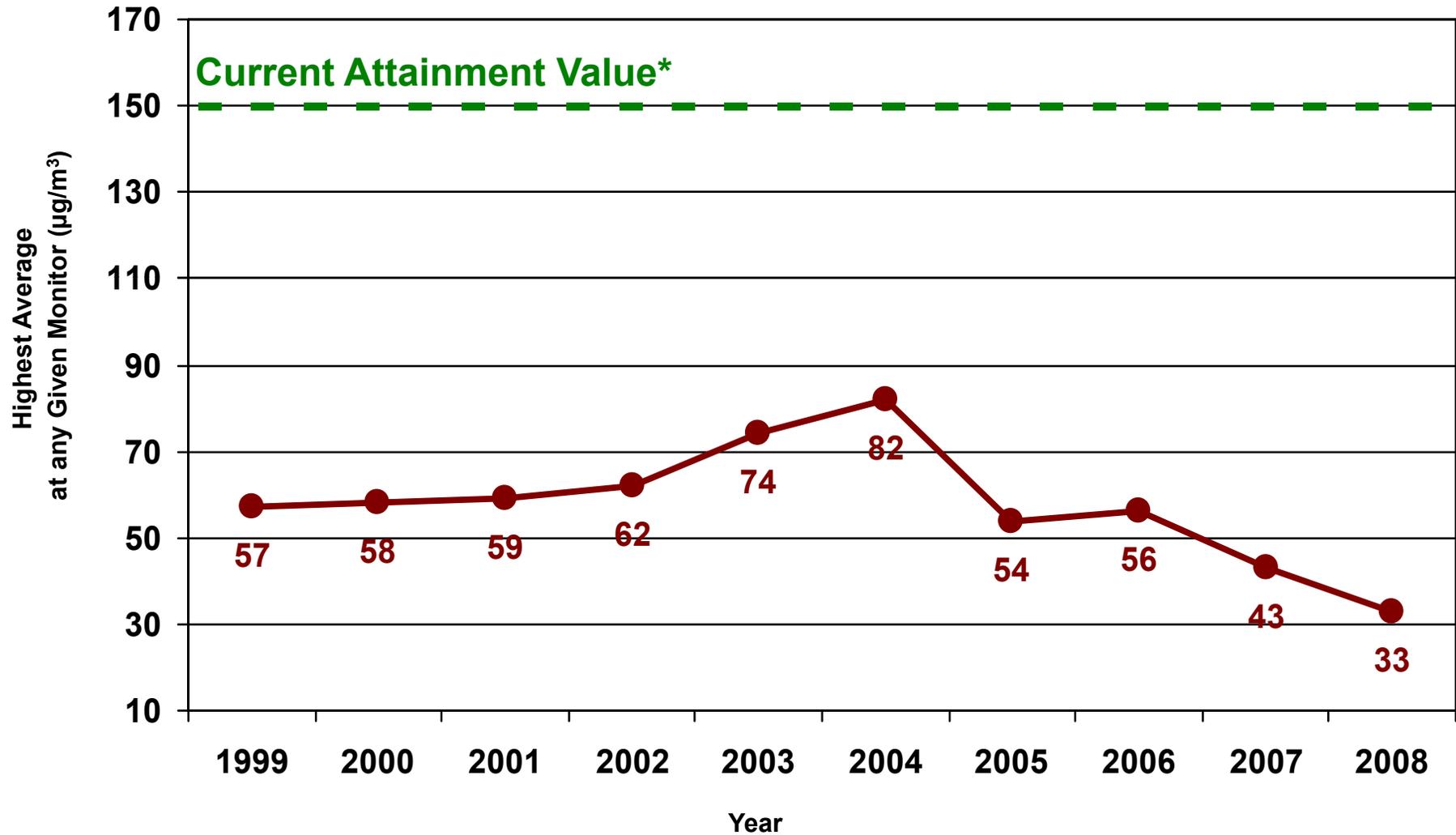


* Current Attainment Value - According to the US EPA National Ambient Air Quality Standards, attainment is reached when the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors has not exceeded 15.0 µg/m3.

Source: EPA AirData

AIR QUALITY UPDATE

PM10 Historical Trends



* Current Attainment Value - According to the US EPA National Ambient Air Quality Standards, attainment is reached when the concentration at each monitor has not exceeded 150 µg/m³ more than once per year on average over 3 years.

Source: EPA AirData

AIR QUALITY UPATE

Nitrogen Dioxide (NO₂)

Proposing To Retain The Current Annual Average of 53 ppb

2006 Design Value: 16 ppb (Dallas County)

2007 Design Value: 16 ppb (Dallas County)

2008 Design Value: 13 ppb (Dallas, Tarrant Counties)

Source: EPA AirData site: <http://www.epa.gov/air/data/msummary.html?st~TX~Texas>

Proposing New 1-hour Standard Between 80 – 100 ppb

Design Values (2005-2007):

Tarrant = 63 ppb

Dallas = 61 ppb

Kaufman = 34 ppb

Denton = 42 ppb

Hunt = 37 ppb

Monitoring Network Could Be Incorporated

Near Major Urban Roads For Peak, Short Term Concentrations

Others Over Wider Areas For Highest Concentrations

EPA Is Taking Comments On Other Standard Levels

AIR QUALITY UPATE

Nitrogen Dioxide (NO₂)

Anticipated Implementation Schedule

Jan 2011 - State Designation Recommendations To EPA

Jan 2012 - Designations (Unclassifiable as near road monitors not in place)

Jan 2013 - New NO₂ Monitoring Network

Jan 2015 - Next NO₂ NAAQS Review Completed

Jan 2017/2018 - Nonattainment Re-Designations

Jan 2022/2023 - Attainment Dates

AIR QUALITY UPDATE

For More Information

Please Visit

www.nctcog.org