

NORTH CENTRAL TEXAS AIR QUALITY UPDATE

**Transportation & Environment Committee
Dallas City Council**

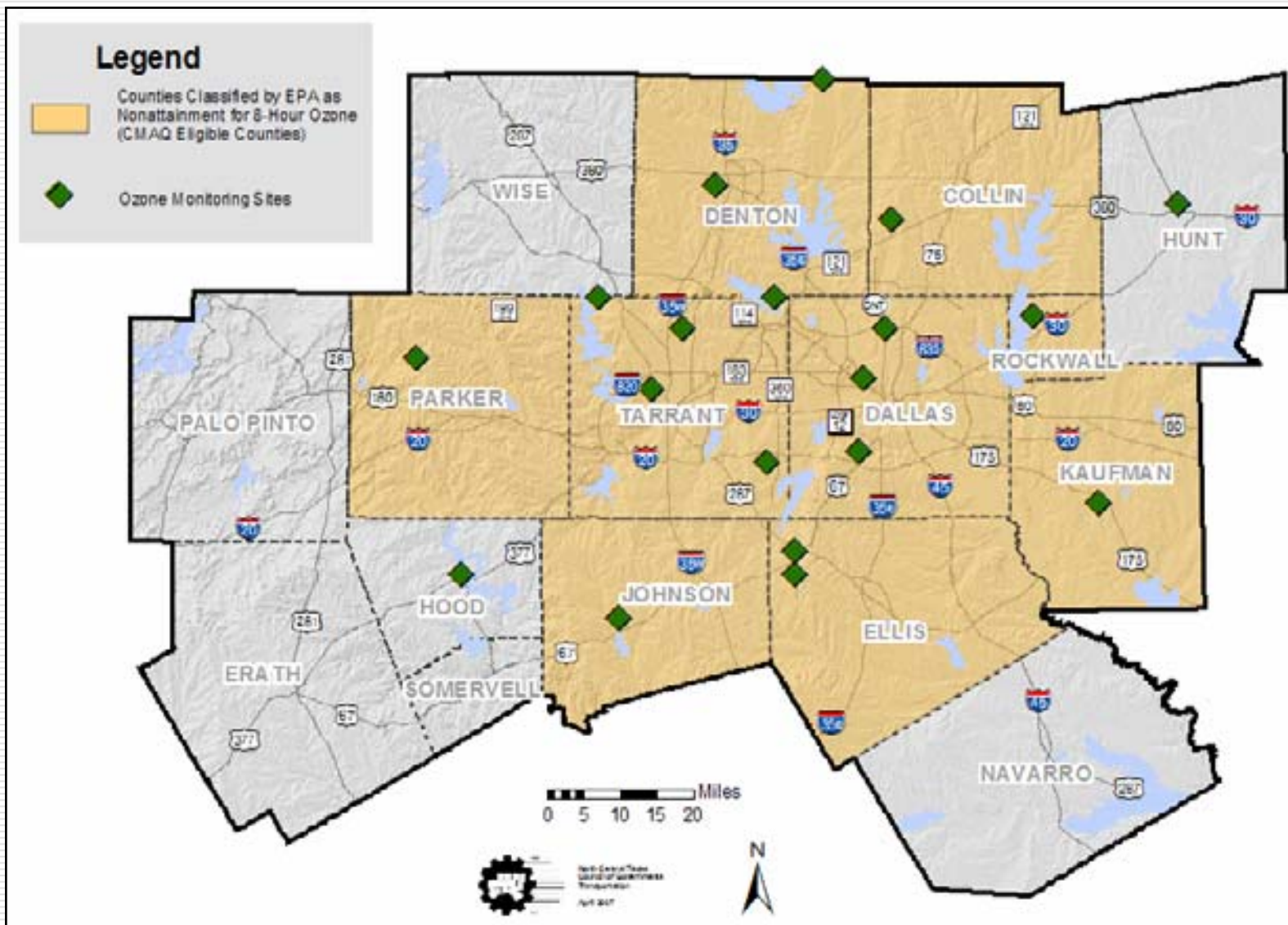
September 24, 2007



**Carrie Reese
Principal Transportation Planner
North Central Texas Council of Governments**

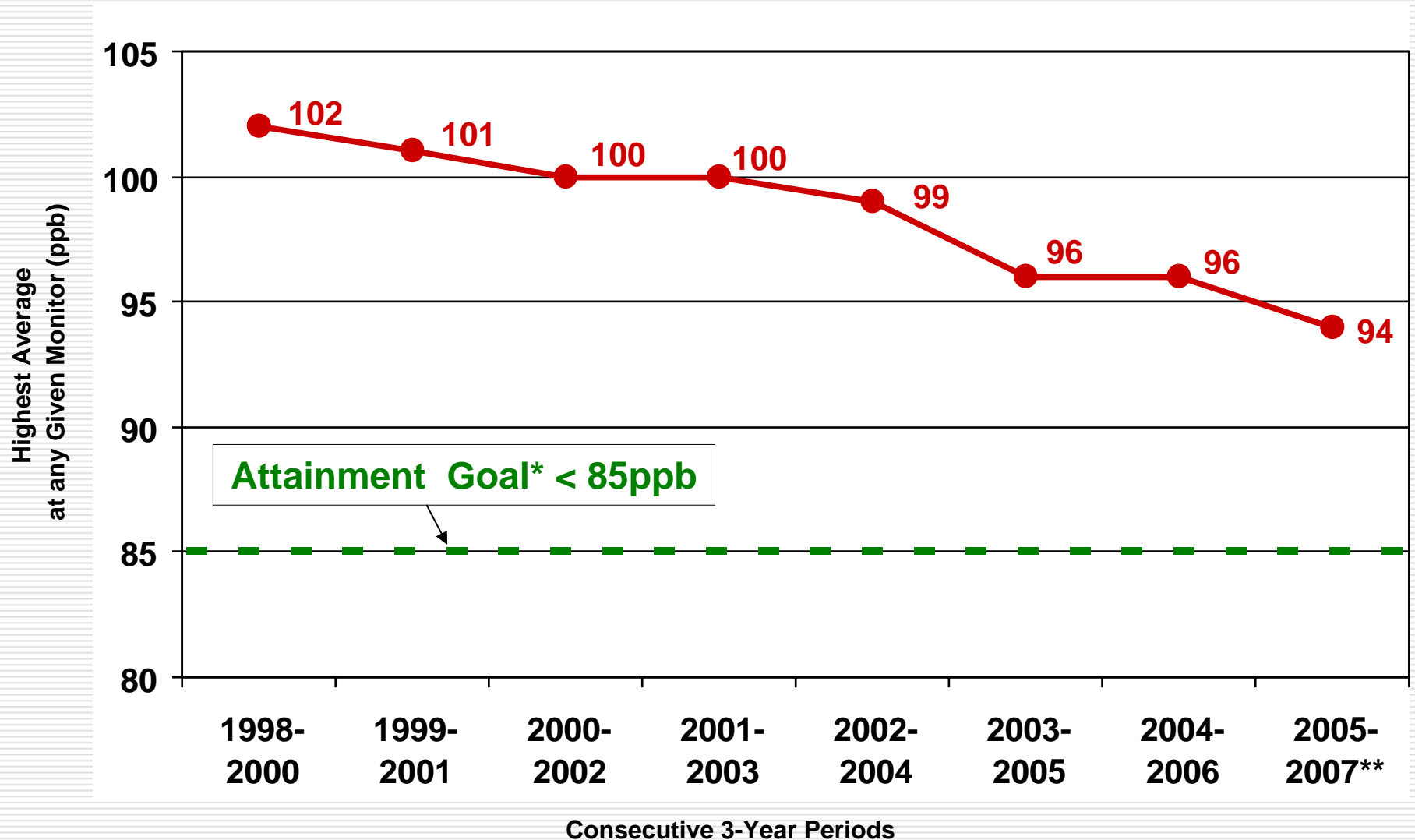
DFW NONATTAINMENT AREA

8-Hour Ozone Nonattainment Counties



DFW NONATTAINMENT AREA

Historical Trend for 8-Hour Ozone Standard



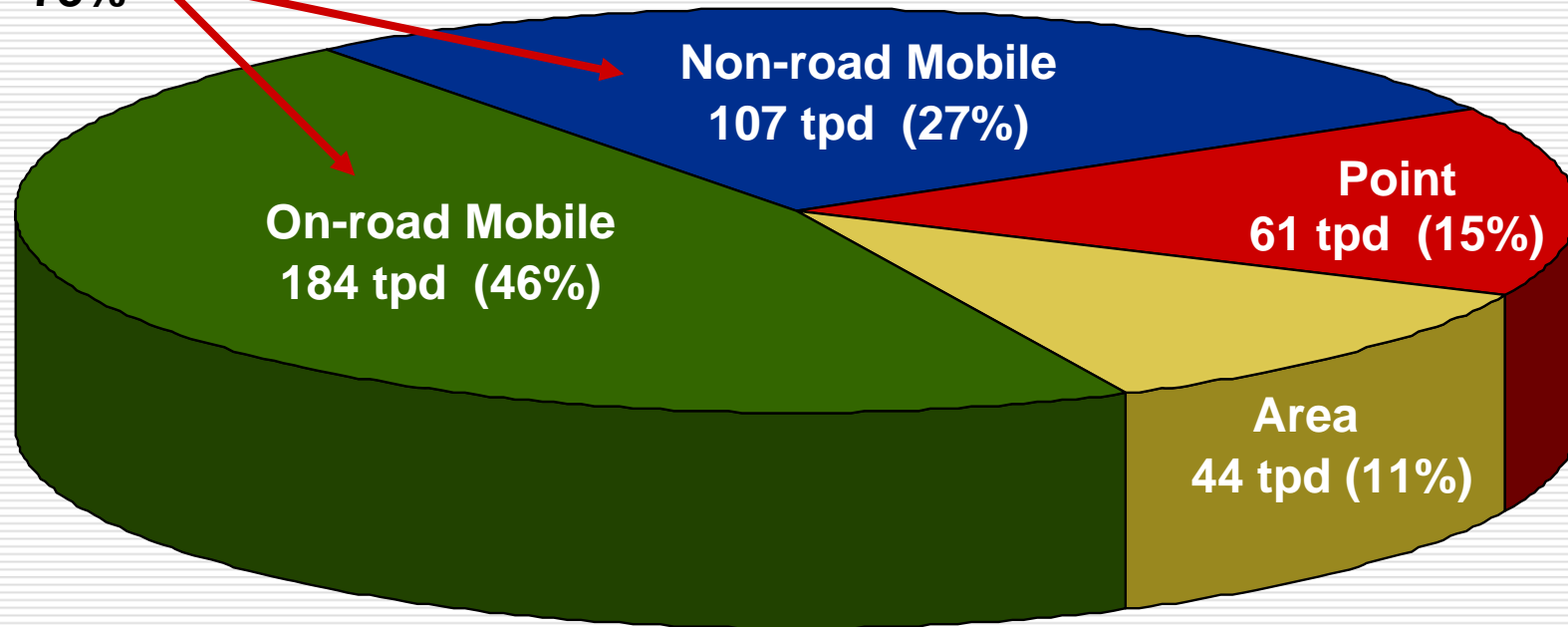
*Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than 85 ppb.

DFW NONATTAINMENT AREA

2009 Nitrogen Oxide (NOx) Emission Inventory

Source Category Estimates

Total Mobile Sources
73%

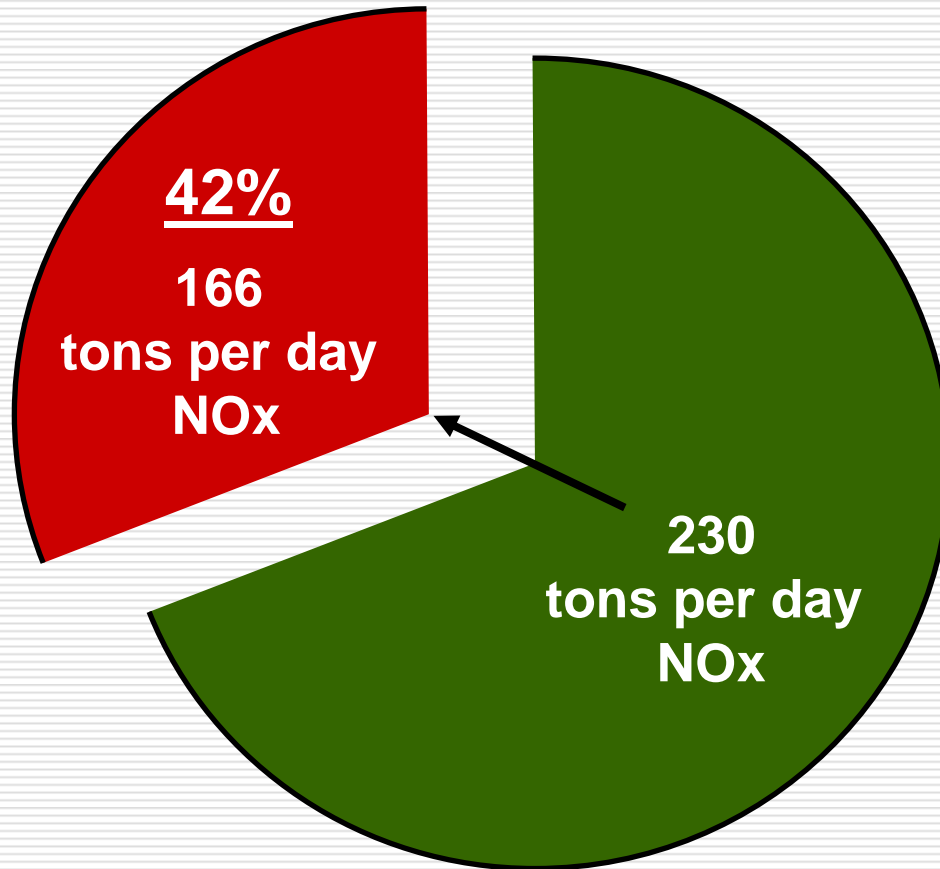


Total NOx = 396 Tons Per Day (tpd)

DFW NONATTAINMENT AREA

2009 Nitrogen Oxide (NOx) Reduction Required

Total Anthropogenic NOx = 396 Tons Per Day



DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

State Rules

NOx Benefit

DFW Major Source Rule	-----
- Industrial, Commercial & Institutional Resources	8.88 tpd
- Electric Generating Utility Sources	0.40 tpd
- Cement Kilns	9.69 tpd
DFW Minor Source Rules	2.90 tpd
East Texas Combustion Source Rule	22.40 tpd
Subtotal	44.27 tpd

DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

Transportation Control Measures

NOx Benefit

Bicycle/Pedestrian Projects	0.01 tpd
Grade Separation Projects	0.18 tpd
HOV/Managed Lane Projects	0.79 tpd
Intersection Improvement Projects	0.15 tpd
Park and Ride Improvement Projects	0.04 tpd
Rail Transit Projects	0.28 tpd
Vanpool Projects	0.08 tpd
Subtotal	1.53 tpd

DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

<u>Voluntary Mobile Emission Reductions</u>	<u>NOx Benefit</u>
Clean Vehicle	0.24 tpd
Employee Trip Reduction	0.43 tpd
Locally Enforced Idling Restriction	0.62 tpd
Diesel Freight Idling Reduction	0.33 tpd
SmartWay Transport Demonstration Project	0.002 tpd
Policy for Construction Equipment	0.06 tpd
Aviation Efficiencies	0.95 tpd
Subtotal	2.63 tpd

DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

Other State and Local Programs

NOx Benefit

Energy Efficiency	2.12 tpd
Texas Emissions Reduction Plan	?
LIRAP Vehicle Repair and Replacement	?
Clean School Bus Program	?
Stationary Diesel/Dual Fuel Engines	?
Locomotive and Marine Compression Engines	?
Coatings/Consumer Products VOC Reductions	?
Subtotal	2.12 tpd

DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

NOx Reduction Requirement **166.00 tpd**

SIP NOx Reductions **Total 50.55 tpd**

State Rules **44.27 tpd**

Transportation Control Measures **1.53 tpd**

Voluntary Mobile Emissions Reductions **2.63 tpd**

Other State and Local Programs **2.12 tpd**

Difference **- 115.45 tpd**

DFW NONATTAINMENT AREA

8-Hour Ozone State Implementation Plan

Weight-Of-Evidence (minimum of 5.42 tpd)

Air Quality Marketing and Outreach

AirCheck Texas Assistance Program

Arterial/Freeway Bottleneck Program

Control Strategy Catalog Review

Dallas Emissions Enforcement Program

Dallas Sustainable Skylines Initiative

EPA Smartway/Blue Skyways Programs

High-Emitting Vehicle Program

Intelligent Transportation Systems

LED Traffic Signal Replacement

Other Energy Efficiency Measures

Parking Cash-Out Program

Pay-As-You-Drive Insurance Program

Regional Smoking Vehicle Program

Roadway Peak Period Pricing

Sustainable Development

TxLED Use By Locomotive Switchers

Traffic Signal Improvements

Truck Lane Restriction Program

DFW NONATTAINMENT AREA

Regional Transportation Council

Air Quality Emphasis Areas

High-Emitting Vehicles

Low Speeds

Diesel Engines

Excessive Idling

Hard Accelerations

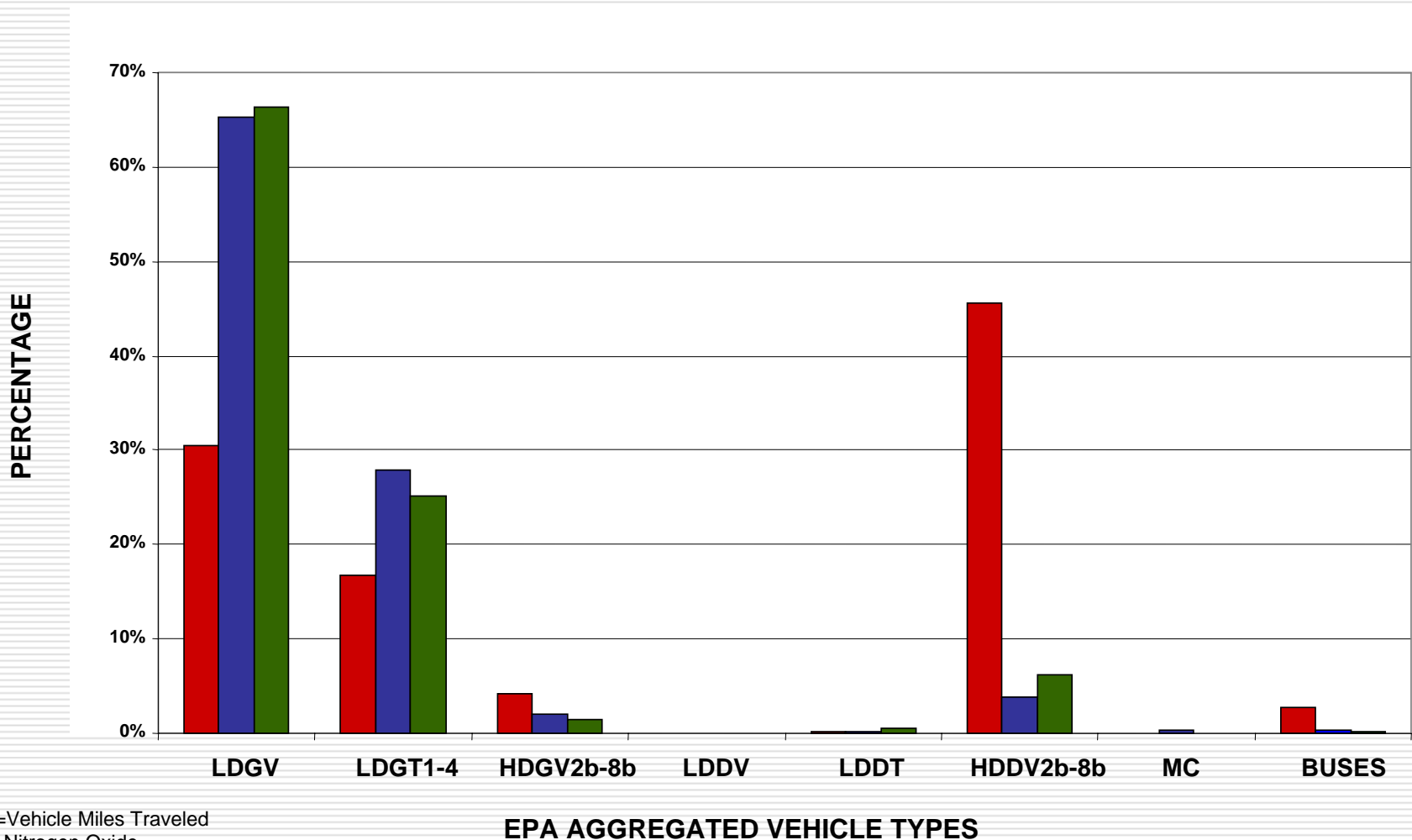
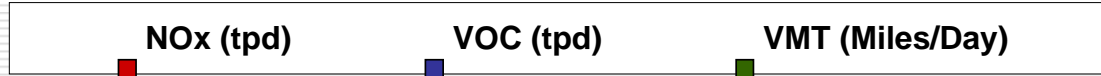
Vehicle Cold Starts

High Speeds

Vehicle Miles of Travel

DFW NONATTAINMENT AREA

2009 Midweek Emissions and VMT by Vehicle Class



VMT=Vehicle Miles Traveled
NOx=Nitrogen Oxide
VOC=Volatile Organic Compound

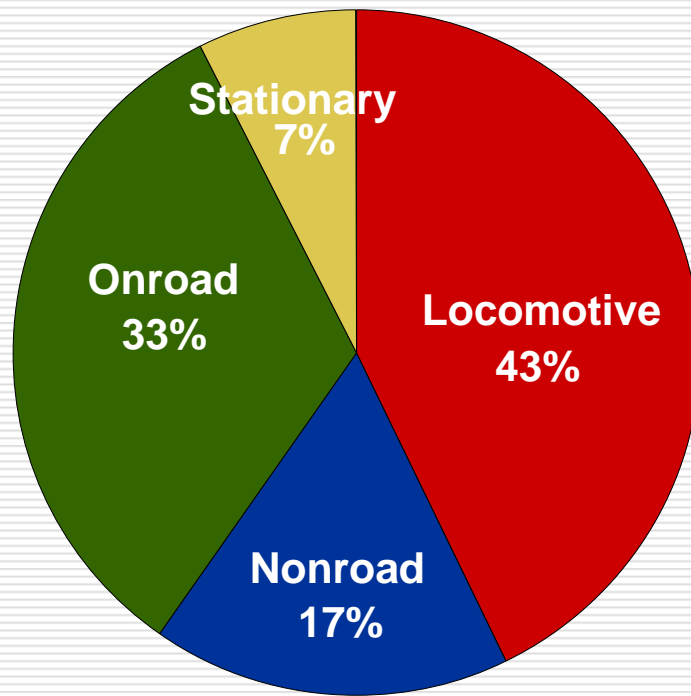
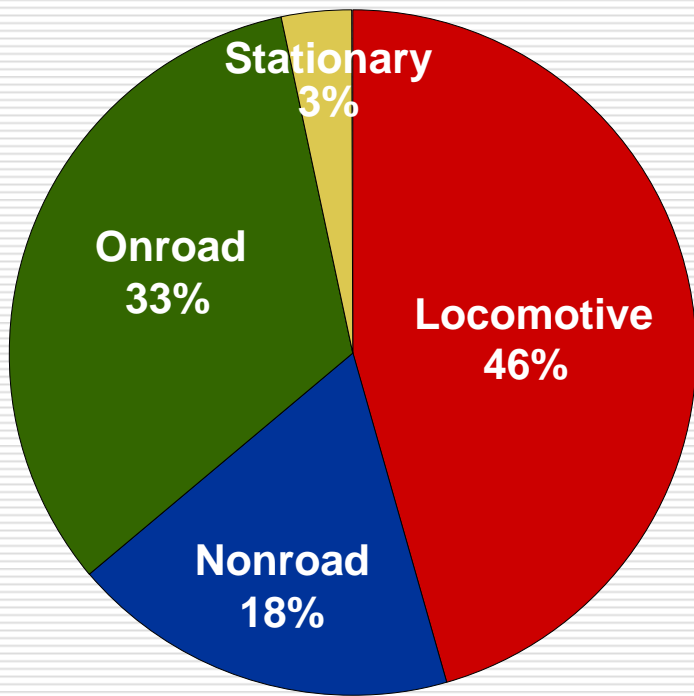
TEXAS EMISSIONS REDUCTION PLAN (TERP)

TEXAS EMISSIONS REDUCTION PLAN

North Central Texas Benefits

Grant Amount
= \$128,434,317

Annual NOx Reduction
= 4,476.5 tons



TEXAS EMISSIONS REDUCTION PLAN

Estimated Funding Available for North Texas

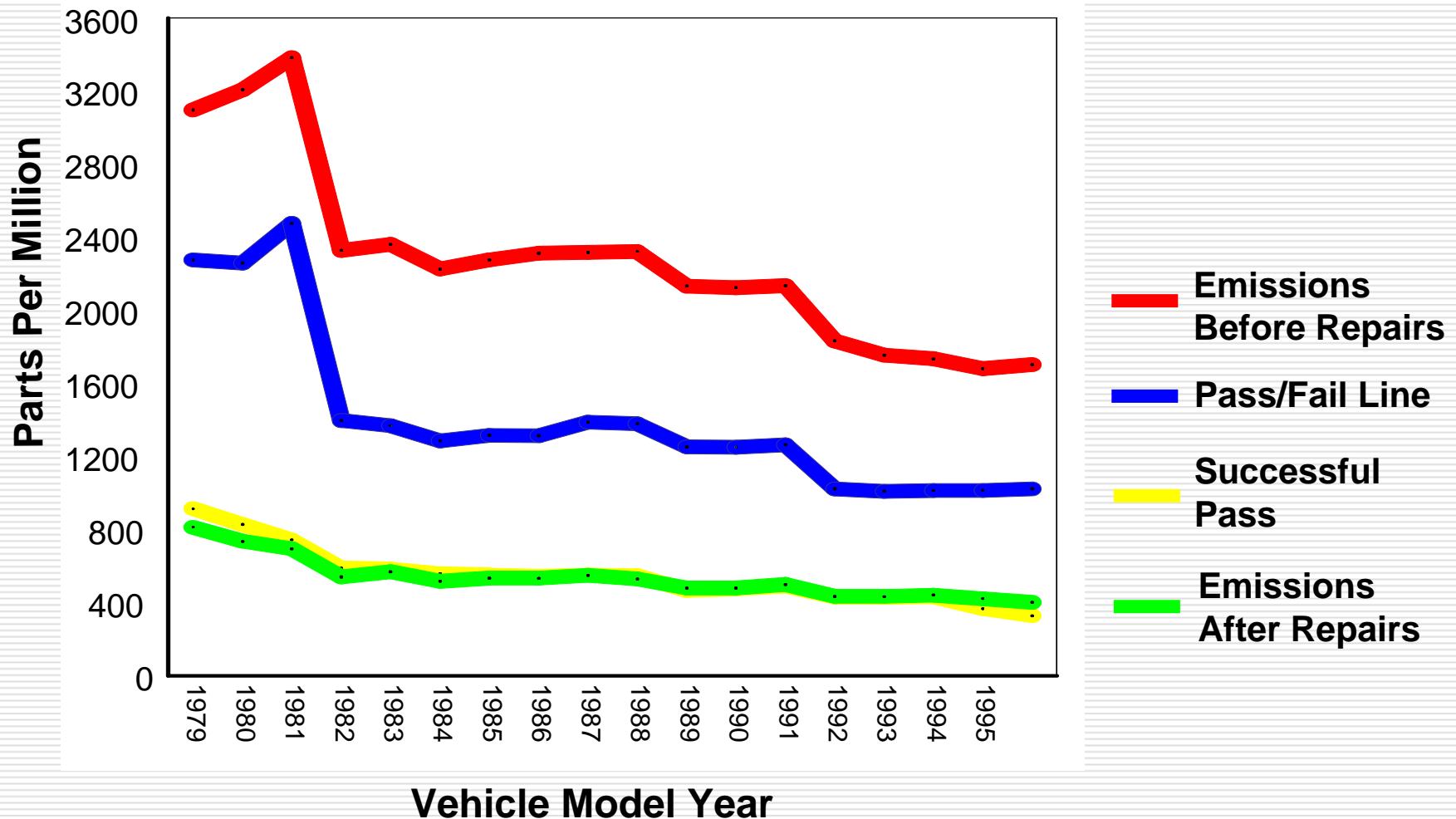
FUNDS	FY 2008	FY 2009	TOTAL
TERP Incentive Amounts	\$71,528,322	\$73,293,800	\$144,822,122
Clean School Bus Program	\$1,875,000	\$1,875,000	\$3,750,000
TOTAL	\$73,403,322	\$75,168,800	\$148,572,122

LOW INCOME REPAIR AND REPLACEMENT ASSISTANCE PROGRAM (LIRAP)

NITROGEN OXIDE REDUCTION

Effects of Inspection & Maintenance Program

Acceleration Simulation Mode



SENATE BILL 12

Local Initiative Projects

Appropriates \$5,000,000 Statewide for Local Initiative Projects:

- Regional Emissions Enforcement Program**
- Expanded AirCheck Texas Program**
- Enhanced Remote Sensing Program**
- Regional Smoking Vehicle Program**
- Other Strategies Designed to Assist Local Areas in Complying With State and Federal Air Quality Rules and Regulations**

Requires Counties To Match Funds Provided for Projects

Must Be Implemented in Consultation With the Commission

EPA PROPOSED OZONE STANDARD

Reevaluation of Current Standard

Reason for Revision

- 1) The Clean Air Act (CAA) requires the Environmental Protection Agency to reevaluate each National Ambient Air Quality Standard (NAAQS) every five years.**
- 2) New evidence questions adequacy of the current standard; notably, in protecting at-risk groups, such as:**

Asthmatic children,

People with lung disease,

All children and older adults; especially those active outdoors,

Outdoor workers.

EPA PROPOSED OZONE STANDARD

Current and Proposed Standards

Primary Standard (To Protect Human Health)

Current Standard

8-Hour Average

0.080 ppm (84 ppb)

Proposed Standard

8-Hour Average

0.070 - 0.075 ppm (70 - 75 ppb)

Secondary Standard (To Protect the Environment)

Current Standard

8-Hour Average

0.080 ppm (84 ppb)

(same as primary standard)

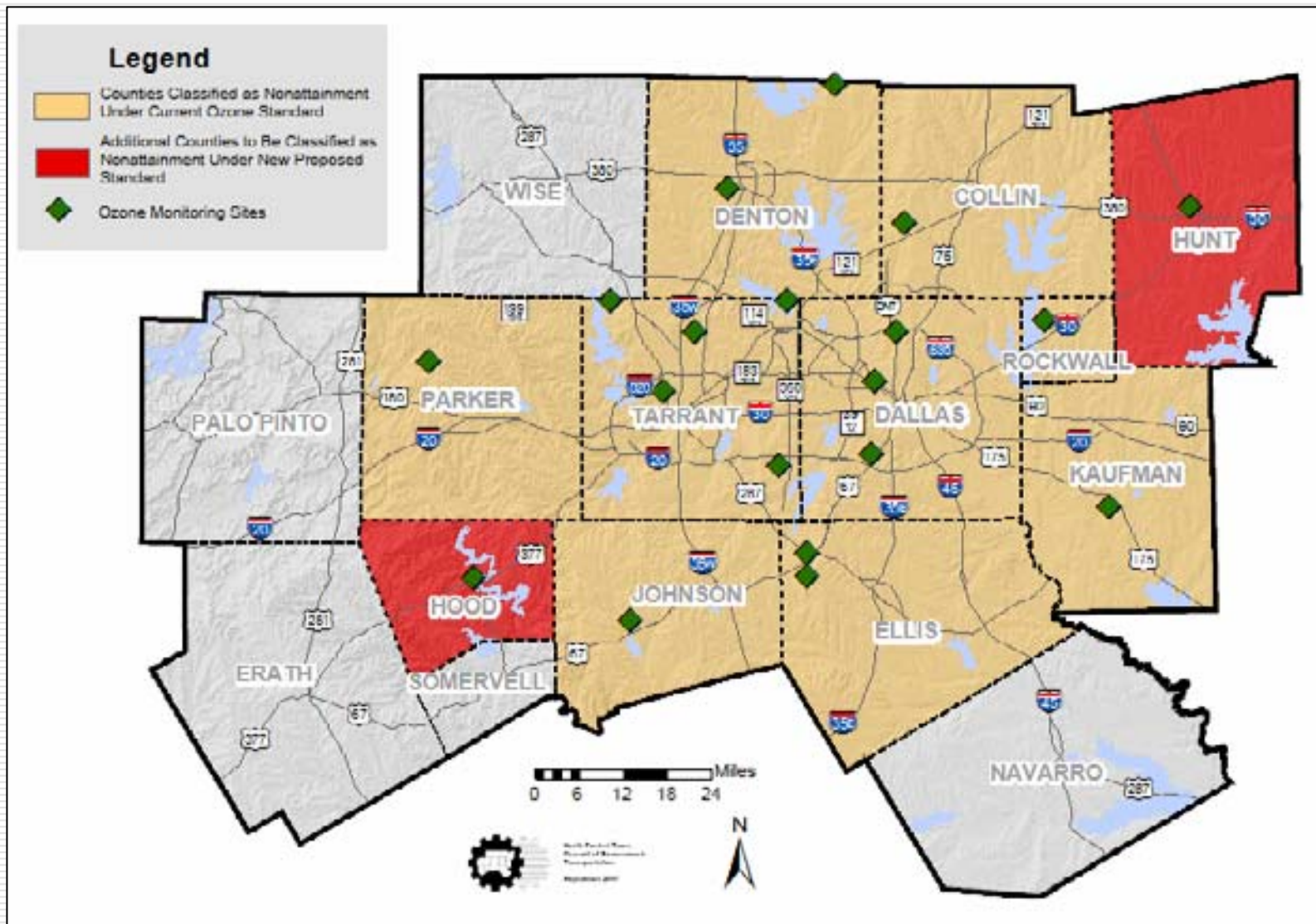
Proposed Standard

Option 1: Same as Primary Std.

Option 2: Cumulative 3-Month
Daily Concentration of
7-21 ppm-hours (W126)

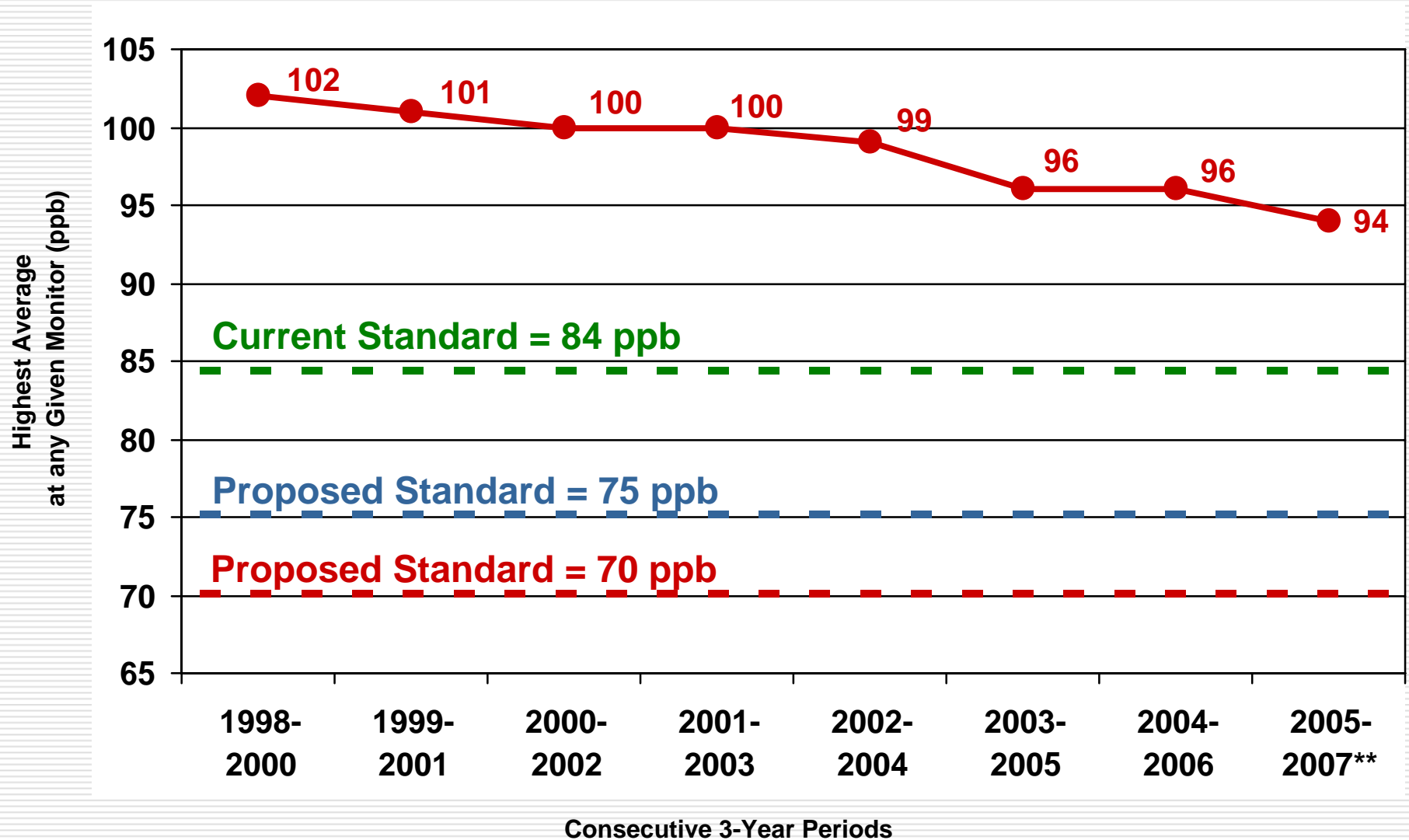
EPA PROPOSED OZONE STANDARD

Proposed 8-Hour Ozone Nonattainment Area at 75 ppb



8-HOUR OZONE HISTORICAL TRENDS*

DFW Nonattainment Area



* 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 ppb.

**Not a full season of data. Current as of August 20, 2007.

EPA PROPOSED OZONE STANDARD

Timeline of Proposal Adoption

<u>Event</u>	<u>Tentative Dates</u>
EPA Proposed More Stringent 8-Hour Standard	Jun. 20, 2007
Four Public Hearings on Proposal:	
Los Angeles and Philadelphia	Aug. 30, 2007
Chicago and Houston	Sept. 5, 2007
EPA Issues Final Standards	Mar. 12, 2008
State Designation Recommendations to EPA (Based on 2006-2008 Data)	Jun. 2009
Final Designations by EPA	Jun. 2010
Effective Date of Designations	2010
State Implementation Plans Due to EPA	2013
Attainment Deadline (Depending on Severity)	2013-2030

NCTCOG AIR QUALITY PROGRAM

Contact Information

Carrie Reese

Principal Transportation Planner

Air Quality Policy & Program Development

(817) 608-2353

creese@nctcog.org

www.nctcog.org/trans/air