

TRANSPORTATION CONFORMITY EXPERIENCES IN THE DALLAS- FORT WORTH NONATTAINMENT AREA



Southern Transportation Air Quality Summit

**Madhusudhan Venugopal
North Central Texas Council of Governments**

TRANSPORTATION CONFORMITY

Overview

Background

State Implementation Plan (SIP)

Transportation Control Measures (TCM)

Modeling Parameters

Short and Long Range Plans

Regional Support

Current and Future Efforts

BACKGROUND

Criteria Pollutants

Carbon Monoxide (CO)

Lead (Pb)

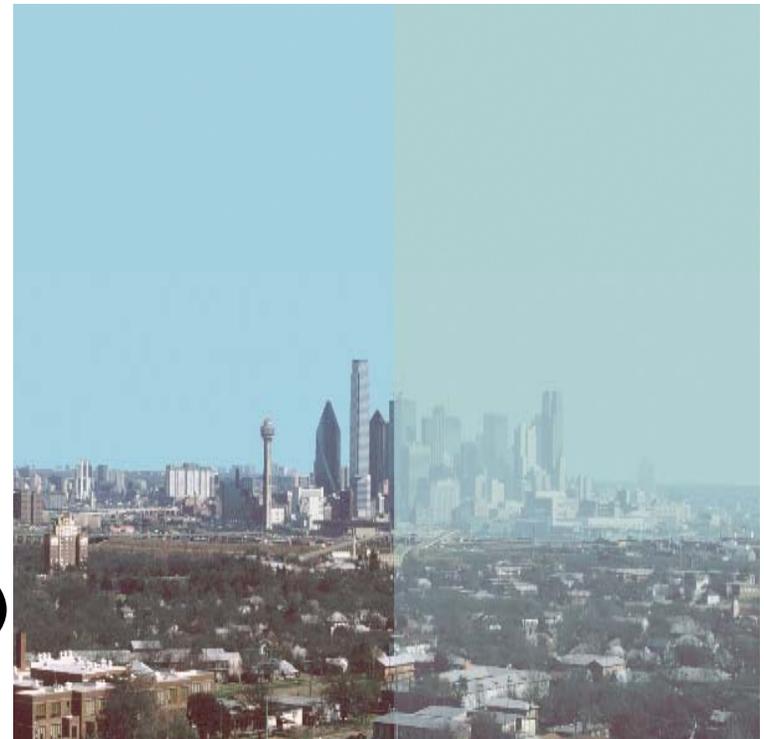
Nitrogen Oxides (NO_x)

Ozone (O₃)

Particulate Matter (PM₁₀ & PM_{2.5})

Sulfur Dioxide (SO₂)

Future ? CO₂, NO₂, Etc.



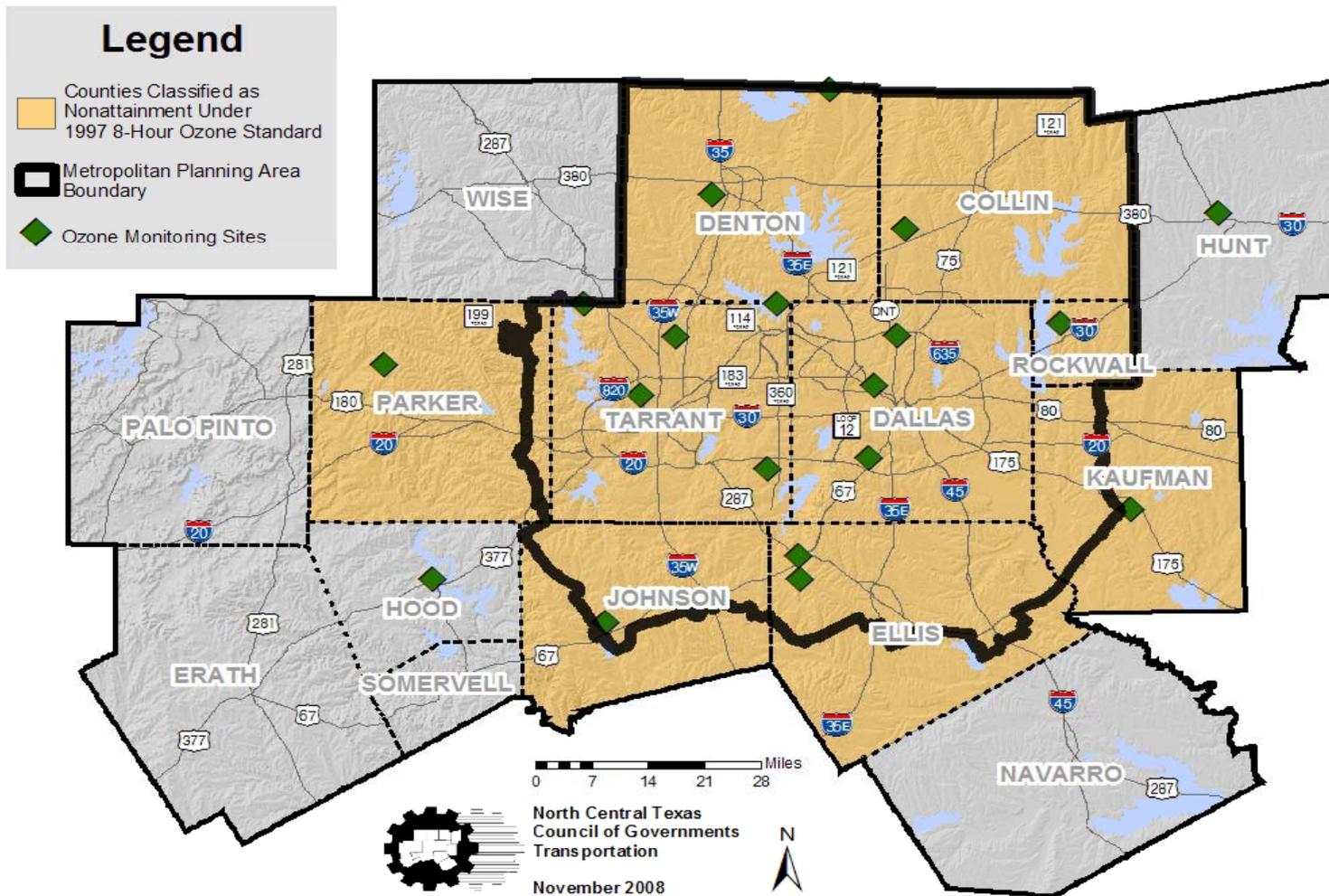
BACKGROUND

History of Federal Air Quality Standards

1990	Federal Clean Air Act Amendments Enacted; 1-Hour Ozone Standard Effective
1991	“Moderate” Nonattainment Designation for 1-Hour Ozone Standard (Collin, Dallas, Denton, and Tarrant Counties)
1998	Reclassification to “Serious” Nonattainment Area for 1-Hour Ozone Standard (Collin, Dallas, Denton, and Tarrant Counties)
2004	Environmental Protection Agency (EPA) 8-Hour Ozone Standard Becomes Effective with “Moderate” Nonattainment Designation (Four Core Counties Plus Ellis, Johnson, Kaufman, Parker, Rockwall Counties)
2005	1-Hour Ozone Standard Revoked
2006	Monitoring Data Indicates Attainment of Original 1-Hour Ozone Standard
2007	TCEQ submits 8-hour SIP
2008	EPA Adopts More Stringent 8-Hour Ozone Standard; Environmental Groups Challenge New Standard
2008	EPA Approves DFW 8-Hour SIP (First in the Country)

BACKGROUND

8-Hour Ozone Nonattainment Area



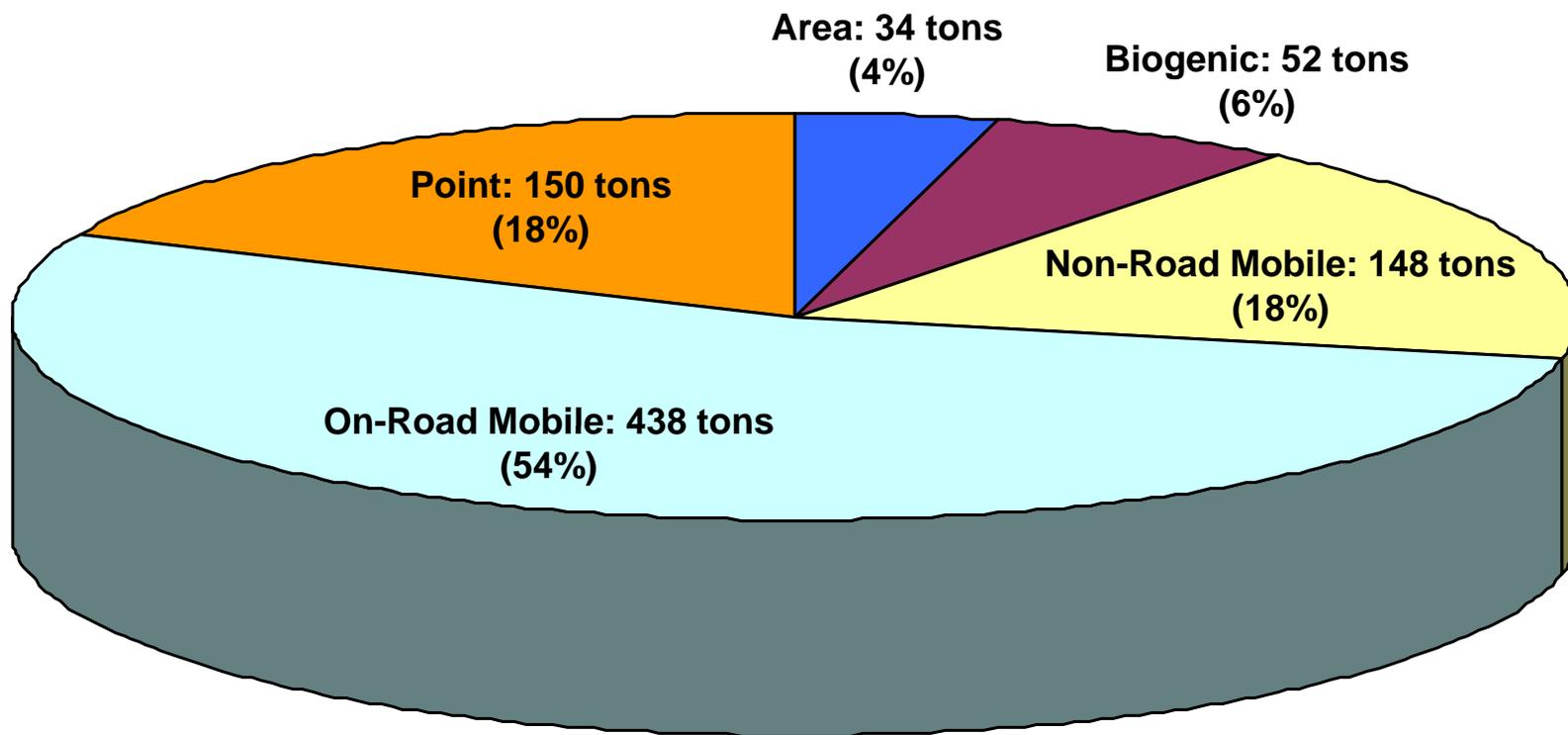
BACKGROUND

Conformity Determination History

Plan, TIP and Conformity	Local Approval	Federal Approval
Mob 2020/96 TIP	Dec 1996	March 1997
Mob 2020/98 TIP	April 1997	September 1997
Mob 2020/Rev. 98 TIP	October 1997	February 1998
Mob 2020/99 TIP	November 1998	February 1999
Mob2025/00 TIP	January 2000	July 2000
Mob 2025 update/02-04 TIP	May 2001	October 2001
Mob 2025 02 update/Rev. 02-04 TIP	October 2002	January 2003
Mob 2025- 04 Amend./04-06 TIP	January 2004	April 2004
Mob 2025- 05 Amend./04-06 TIP	April 2005	June 2005
Mob 2030/08-11 TIP	January 2007	June 2007
Mob 2030-09 Amend./08-11 TIP	April 2009	?

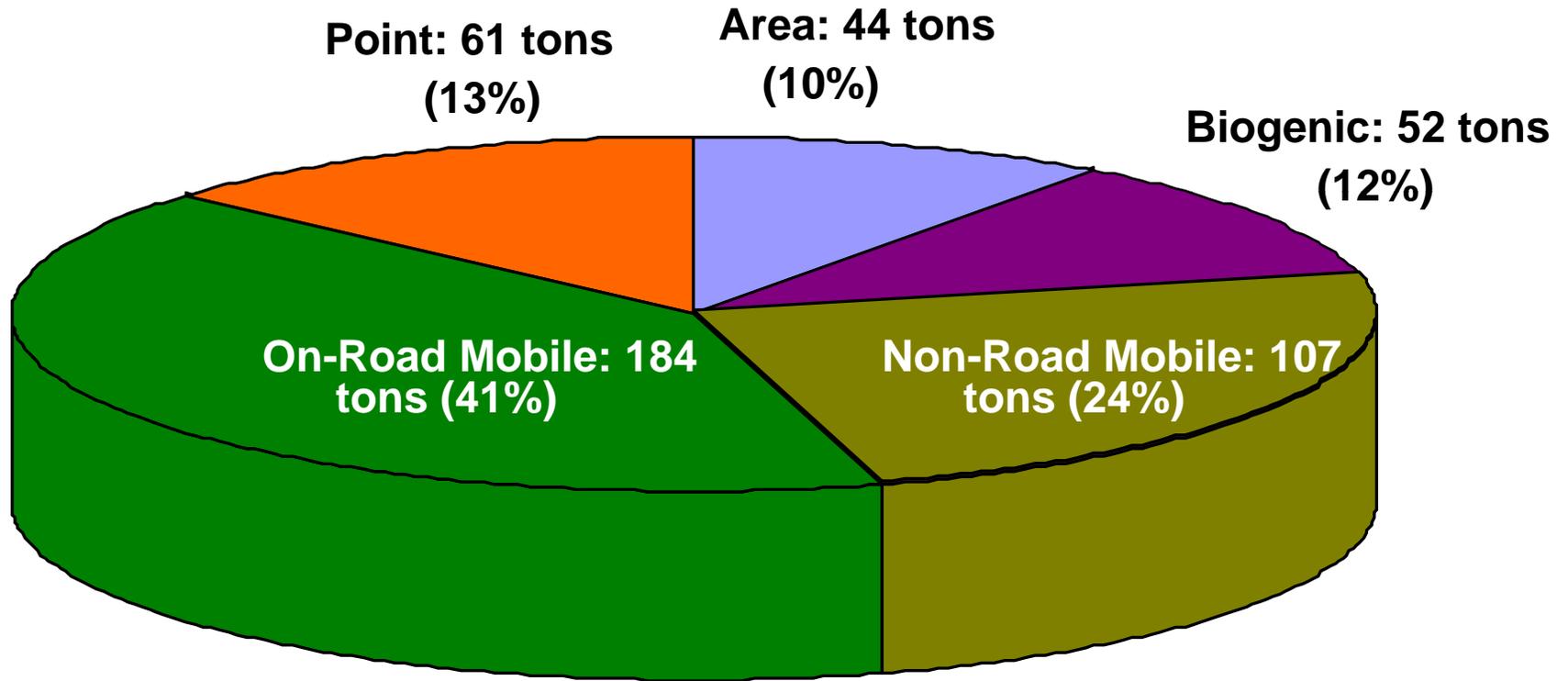
STATE IMPLEMENTATION PLAN

1999 Nitrogen Oxides (NO_x) Emission Inventory



STATE IMPLEMENTATION PLAN

2009 Nitrogen Oxides (NOx) Emission Inventory



TRANSPORTATION CONTROL MEASURES

8-Hour SIP

Program Area	Commitments
Bike/Ped	15.4 Miles
Grade Separations	84 Locations
HOV/Managed Facilities	70 Miles
Intersection Improvements	655 Locations
Park and Ride Lots	2,285 Spaces
Rail Transit	70.2 Miles
Vanpools	216 Vanpools

TRANSPORTATION CONTROL MEASURES

Identifying TCMs

Initial Commitment Summary

Transportation Improvement Program Review/Survey

Coordination with Implementing Agencies

Double Check Database Information
(i.e. TIPINS, Studies, Etc.)

Review Large Projects
(for Grade Separations, Intersection Imp.)

Final Update of Commitment List

Substitute Problematic Projects

**Forward Revised Commitment Summary to State and
Federal Air Quality Conformity Partners**

TRANSPORTATION CONTROL MEASURES

Environmental Speed Limits

Environmental Speed Limits (ESL) are a Control Strategy in the 1-Hour State Implementation Plan

All Speed Limits Continue to be an Indirect Strategy in the 8-Hour SIP and Transportation Conformity

Speed Increases Above 35 mph Increase NO_x Emissions

TRANSPORTATION CONTROL MEASURES

Environmental Speed Limits

Implementing Agency to Notify NCTCOG

If an Environmental Speed Limit

- **NCTCOG to Identify Air Quality Impacts**
- **Implementing Agency Identify Offset Emission Measures**
- **If Impacts Are Greater Than Offsets, RTC Assistance**
- **NCTCOG Initiate TCM Substitution Process**

If NOT An Environmental Speed Limit

- **NCTCOG Incorporate Into Subsequent Transportation Conformity Analysis**
- **If Emissions Are Greater Than SIP Motor Vehicle Emissions Budgets, Re-Evaluate**
- **Proceed with U.S. Department of Transportation Conformity Determination**

MODELING PARAMETERS

Factors Affecting EF and VMT

Age Distribution

Diesel Fraction

Hourly VMT

Seasonal Adjustment Factors

**Highway Performance Monitoring System (HPMS)
Adjustment Factors**

Non-Recurring Congestion Factor

MODELING PARAMETERS

Consensus

Identify Data Used to Develop Parameters

Interagency Consultation Review

Collection of Latest Available Data

Motor Vehicle Emission Budgets (MVEBs)

Documentation

MODELING PARAMETERS

HPMS Factor

40 CFR 93.122(b)-(3): “an HPMS adjustment factor may be developed to reconcile and calibrate the network-based travel model (e.g., TDM) estimates of VMT in the base year of its validation to the HPMS estimates for the same period”.

Traffic Counts Used For Validation in the Model

VMT Increase/Decrease Over Time

Need for a Model Adjustment Factor

SHORT AND LONG RANGE PLANS

Project Identification

Modeling and Non-Modeling Area

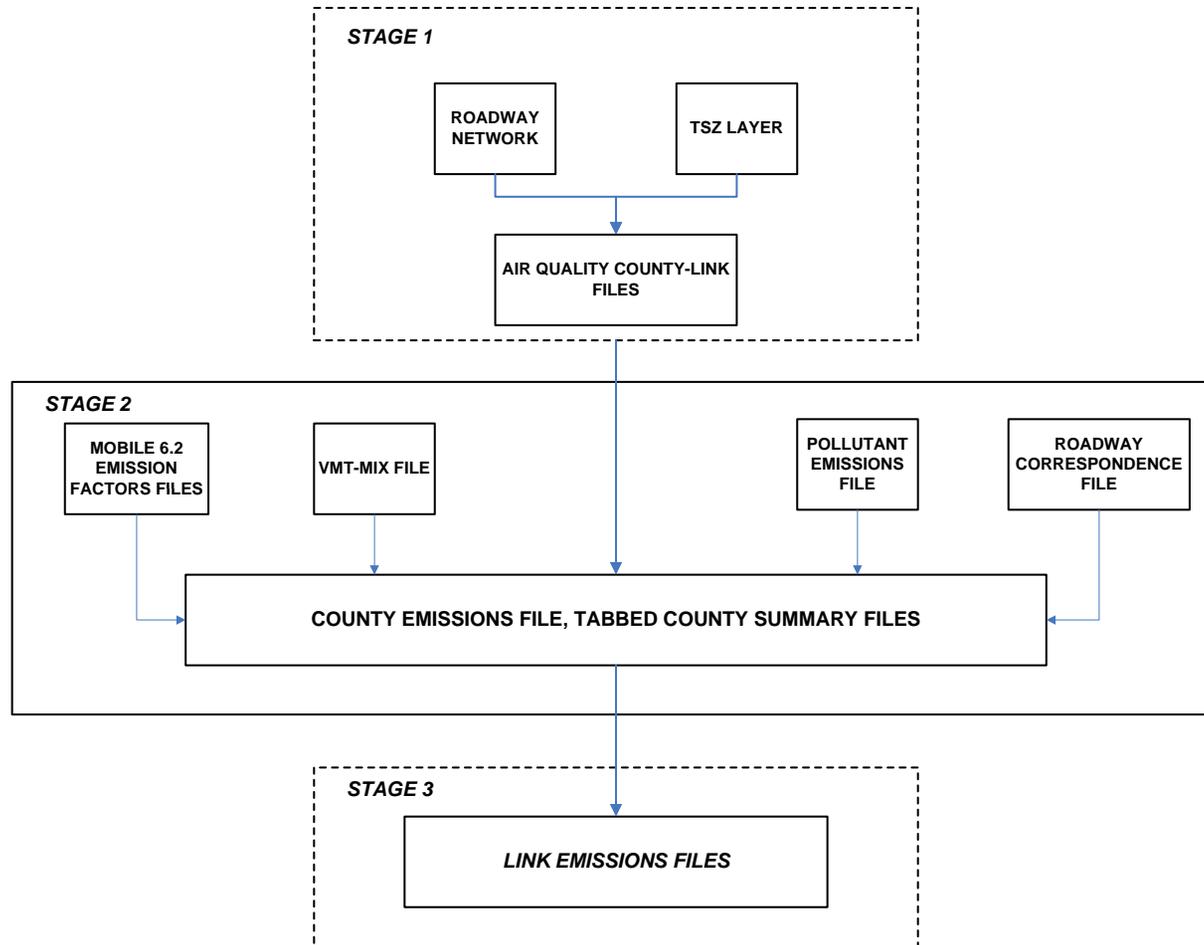
Project Staging Years

Consistency with MTP and TIP

Communication with State DOT's and Cities

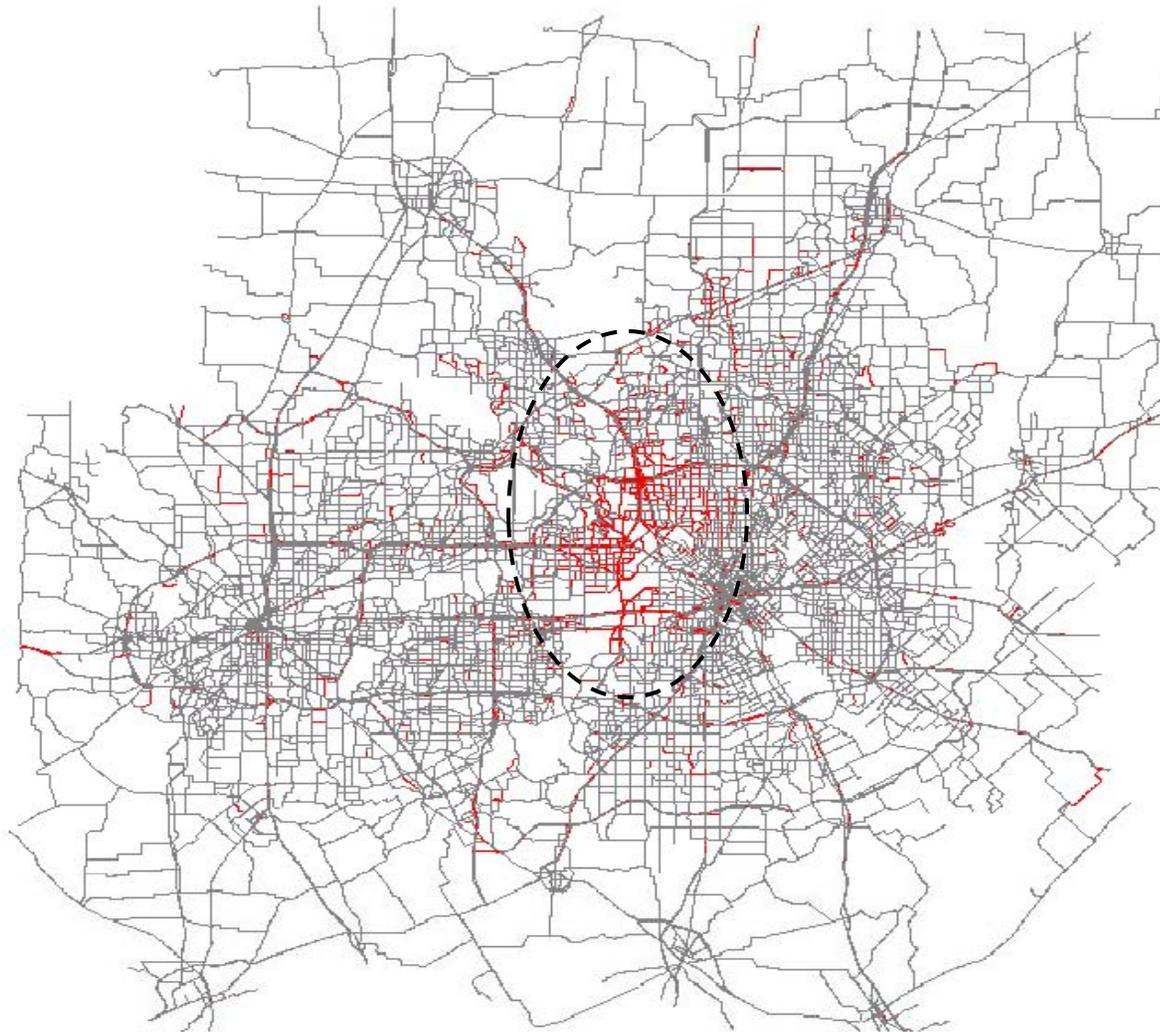
Non-Modeling Area Project Listing Through Meetings

REGIONAL SUPPORT MSAT ANALYSIS



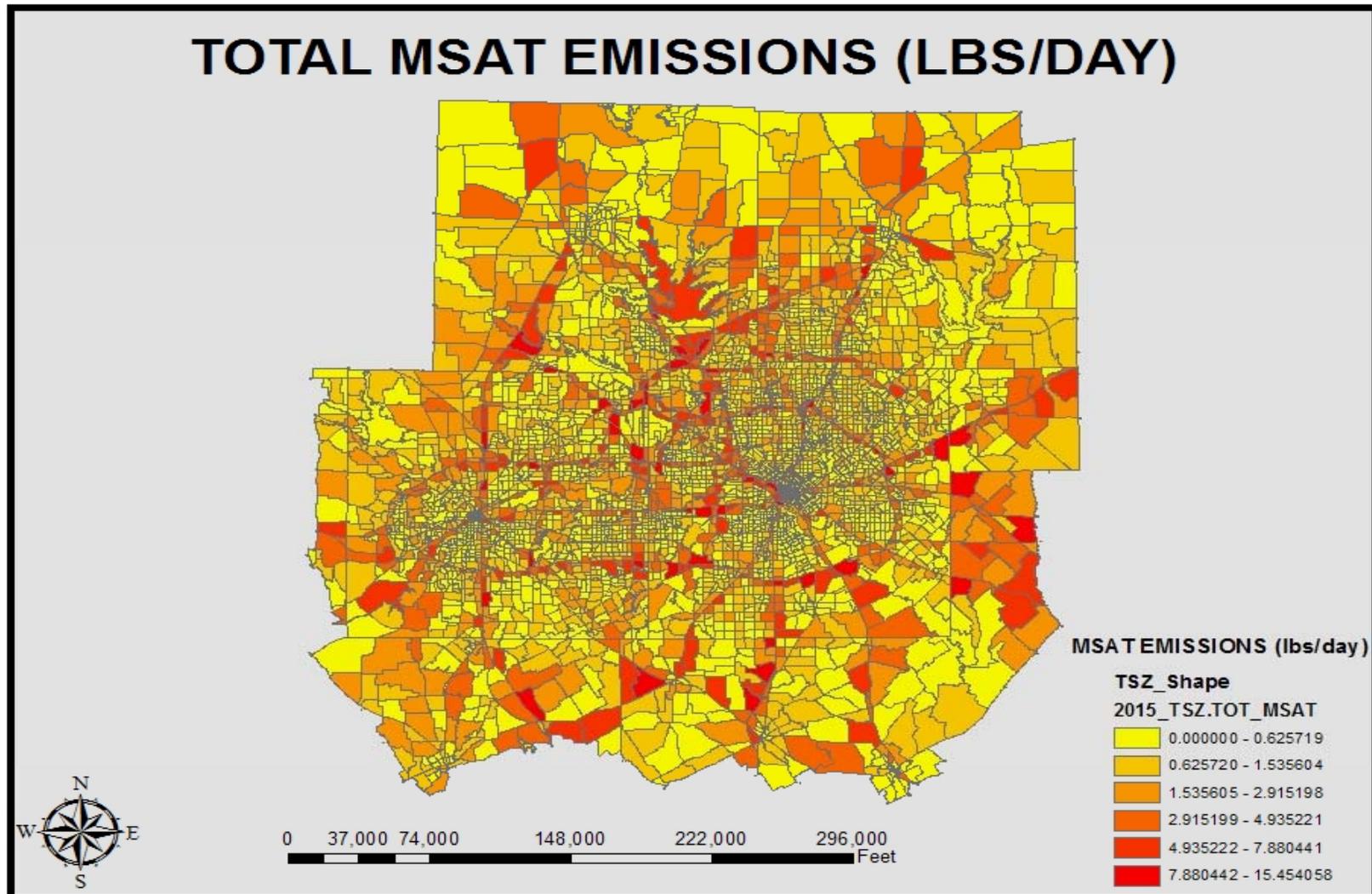
REGIONAL SUPPORT

MSATs: FHWA Recommended Five-Percent Volume Change



REGIONAL SUPPORT

MSATs: Emissions Analysis by TSZ



CURRENT AND FUTURE EFFORTS

Ideas

Visualization

Multi-Pollutant Approach

More Peer to Peer Communication

Streamlining Conformity Process

Web-Based Project Submission/Updates

Increased Communication with Cities on Project Status

CURRENT AND FUTURE EFFORTS

Management and Operations



Don't Choke, Call #SMOKE



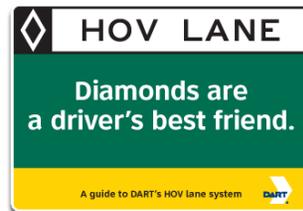
go green. breathe clean.



northcentral.texas.clean.school.bus.program



tryparkingit.com



CURRENT AND FUTURE EFFORTS

Management and Operations

WARNING

**5 MINUTE IDLE LIMIT
BUSES - MAXIMUM 30 MINUTES**



STATE CODE 30 TAC 114.512
www.EngineOffNorthTexas.org



CURRENT AND FUTURE EFFORTS

Public Awareness Campaign Elements

clean air for all

go green. breathe clean. your logo here

Let's face it, we all want the same thing - clean air. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make living healthy and breathing clean a breeze. Sign up today with Air North Texas to become a part of change in air quality.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

www.AirNorthTexas.org

give them some fresh air

go green. breathe clean. your logo here

No one likes being stuck indoors, especially kids. But when air is bad, being indoors is the only place a kid should be. With your help and the support from the Air North Texas community of individuals and organizations in the North Texas region, we can make being healthy and breathing clean a kid's play. Sign up today with Air North Texas and reward your kid's playground.

Air North Texas is a public awareness campaign that encourages residents of North Texas to make clean air choices. Join us.

www.airnorthtexas.org

Campaign Web site
www.airnorthtexas.org

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When it comes to our air, inflation is a good thing.

By keeping your tires properly inflated you'll increase gas mileage, decrease your emissions and save money. And that's a very good thing.

For more tips on how you can do your part click on airnorthtexas.org

air northtexas go green breathe clean a campaign for clean air

search

- home
- about us
- partners
- individuals
- businesses
- air facts
- just for kids
- links & resources

playing catch outside is so much more fun

think. share. connect.

bike it you might like it

Kick back, hang out, feel free to surf and browse our Web site. Learn more about simple daily actions you can adopt to improve air quality. Here's one: how about combining your errands into one quick trip— you save on gas, time, and you're helping the air.

While you're here, why not **sign up** to become a part of the Air North Texas campaign for clean air. Everyone including individuals, organizations, even kids can join. Get connected. Join us.

welcome to air north texas

Did you know that cleaning the air we breathe is a lot easier than we think? Small changes can make big improvements in our air and benefit our health at the same time.

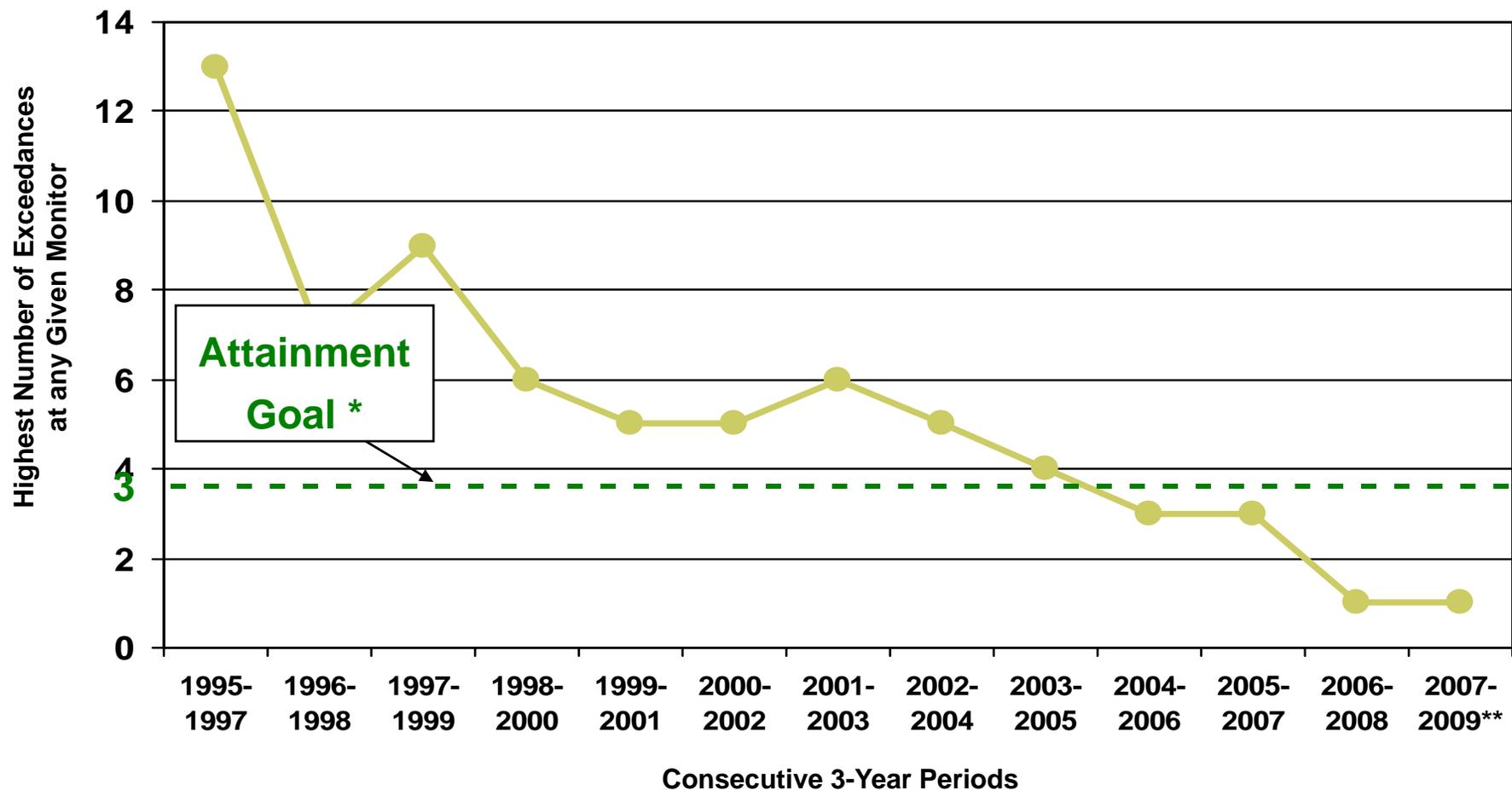
Air North Texas is here to provide information and resources to many simple, daily actions you can take to help and be a part of the campaign for cleaner air. Together, we can **go green, breathe clean.**

maintain your car breathe better

- air quality index
- biking/walking routes
- commute info
- report smoking vehicles
- contact us
- faqs
- join us
- events

1-HOUR OZONE HISTORICAL TRENDS

DFW Nonattainment Area



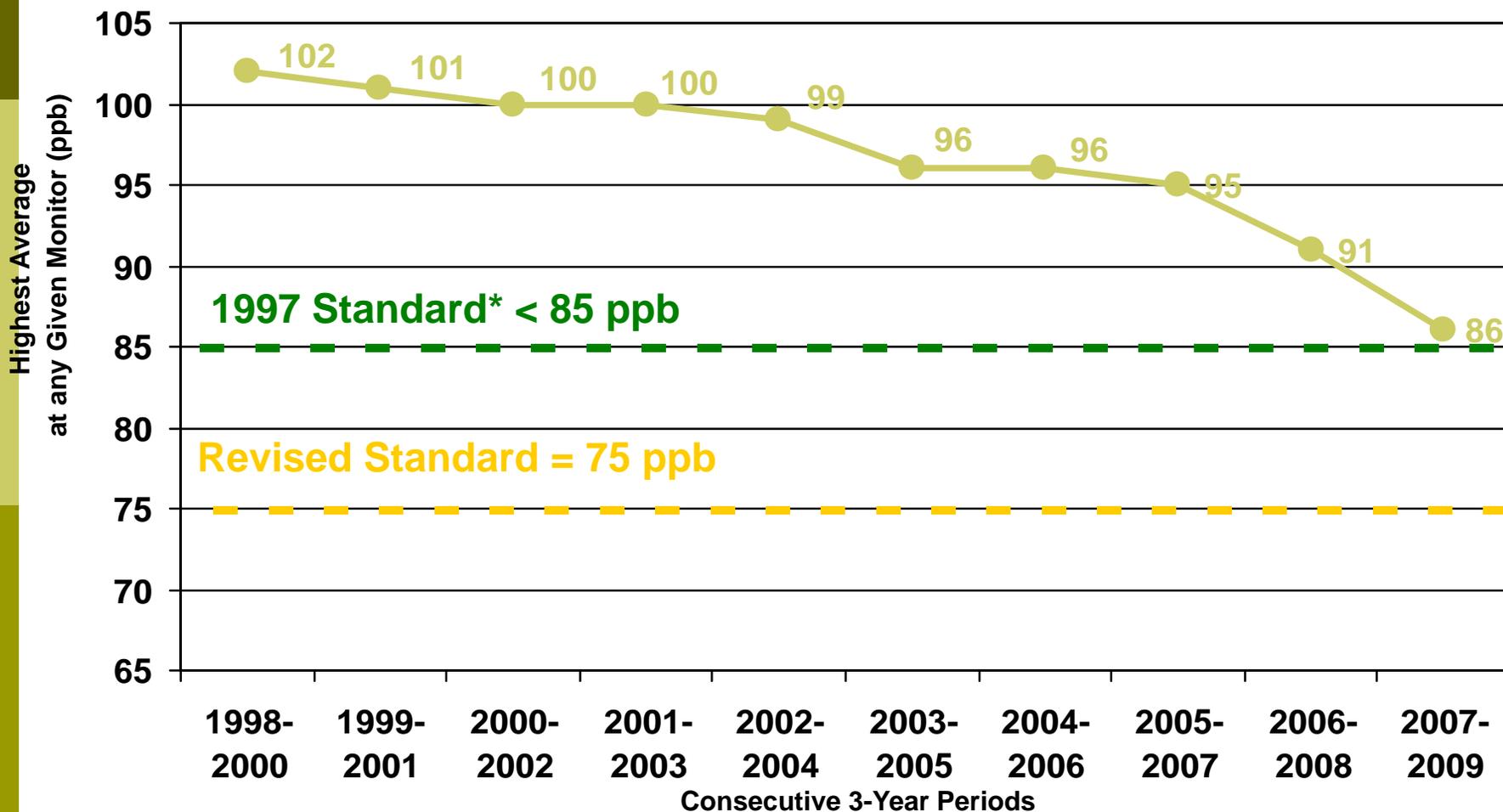
* Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when there are no more than 3 exceedances per monitor within a consecutive 3-year period. An exceedance occurs when the ozone concentration \geq 125 parts per billion averaged over a one hour period.

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

Source: NCTCOG Transportation Dept

HISTORICAL TRENDS FOR 8-HOUR OZONE STANDARD

DFW Nonattainment Area



* 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).

TRANSPORTATION CONFORMITY

Contact Information

Madhusudhan Venugopal
Senior Transportation Planner
(817) 608-2333
mvenugopal@nctcog.org