

NORTH CENTRAL TEXAS AIR QUALITY: FOCUS ON HOOD COUNTY

**The 9th Annual Economic Outlook
Conference**

September 11, 2013

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North Central Texas Council of Governments
Transportation Department

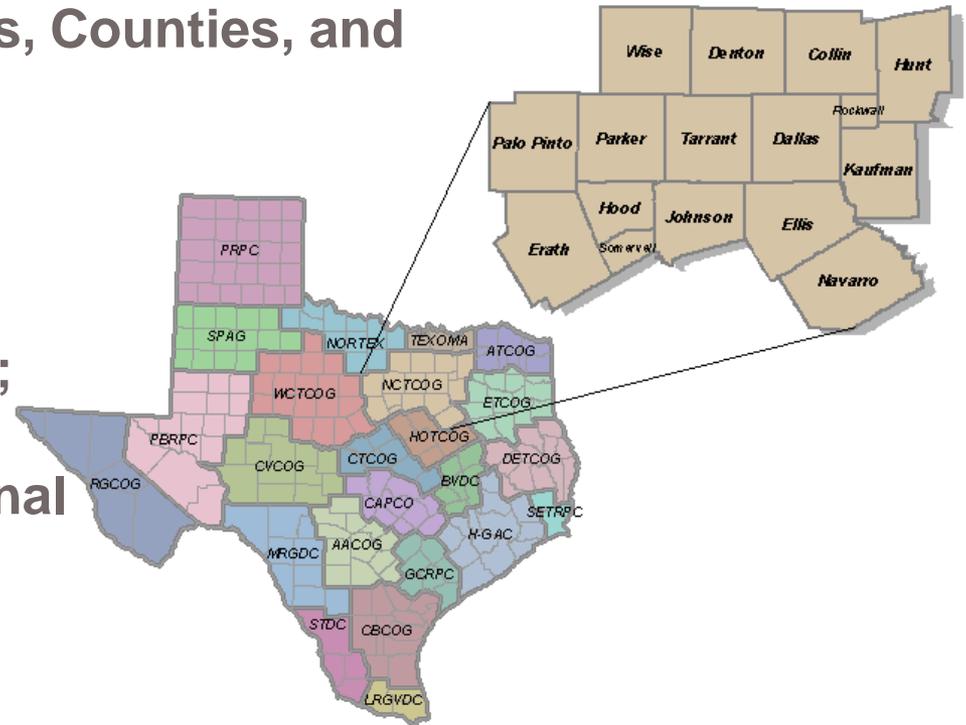
North Central Texas Council of Governments

Voluntary Association of, by and for Local Governments

16-County Region Centered Around DFW
230 Member Governments (Cities, Counties, and Special Districts)

Goals Include:

Planning for Common Needs;
Cooperating for Mutual Benefit;
and
Coordinating for Sound, Regional
Development.



North Central Texas Council of Governments

Metropolitan Planning Organization

12-County Metropolitan Planning Area

43-Member Regional Transportation Council

Policymaking Body Consisting of Primarily Local Elected Officials and Representatives

Responsibilities Include the Following:

Guide the Development of Multimodal Transportation Plans and Programs;

Allocate Federal and State Transportation Funds;

Select Transportation Projects;

Ensure Transportation Providers Coordinate Services; and

Ensure the Metropolitan Area Complies with State and Federal Laws and Regulations Regarding Transportation and Air Quality.

MOBILITY 2035 – 2013 UPDATE

What is the Mobility 2035 – 2013 Update?



Represents a Blueprint for the Region's Multimodal Transportation System



Covers at Least a 20-Year Timeframe and a 12 County Area



Responds to Goals
Mobility, Quality of Life, System
Sustainability and Implementation



Identifies Policies, Programs, and Projects
for Continued Development



Guides the Expenditure of Federal and State
Funds

MOBILITY 2035 – 2013 UPDATE

What is the Mobility 2035 – 2013 Update?

MTP Includes Transportation Policy, Program, and Project Recommendations Between the Years of 2013 to 2035

Plan Cost/Revenue is \$98.7 B

Environmental Justice Assessment was Performed on Roadway and Transit Recommendations According to Federal Guidelines Finding No Disproportionately High Impacts to Protected Populations

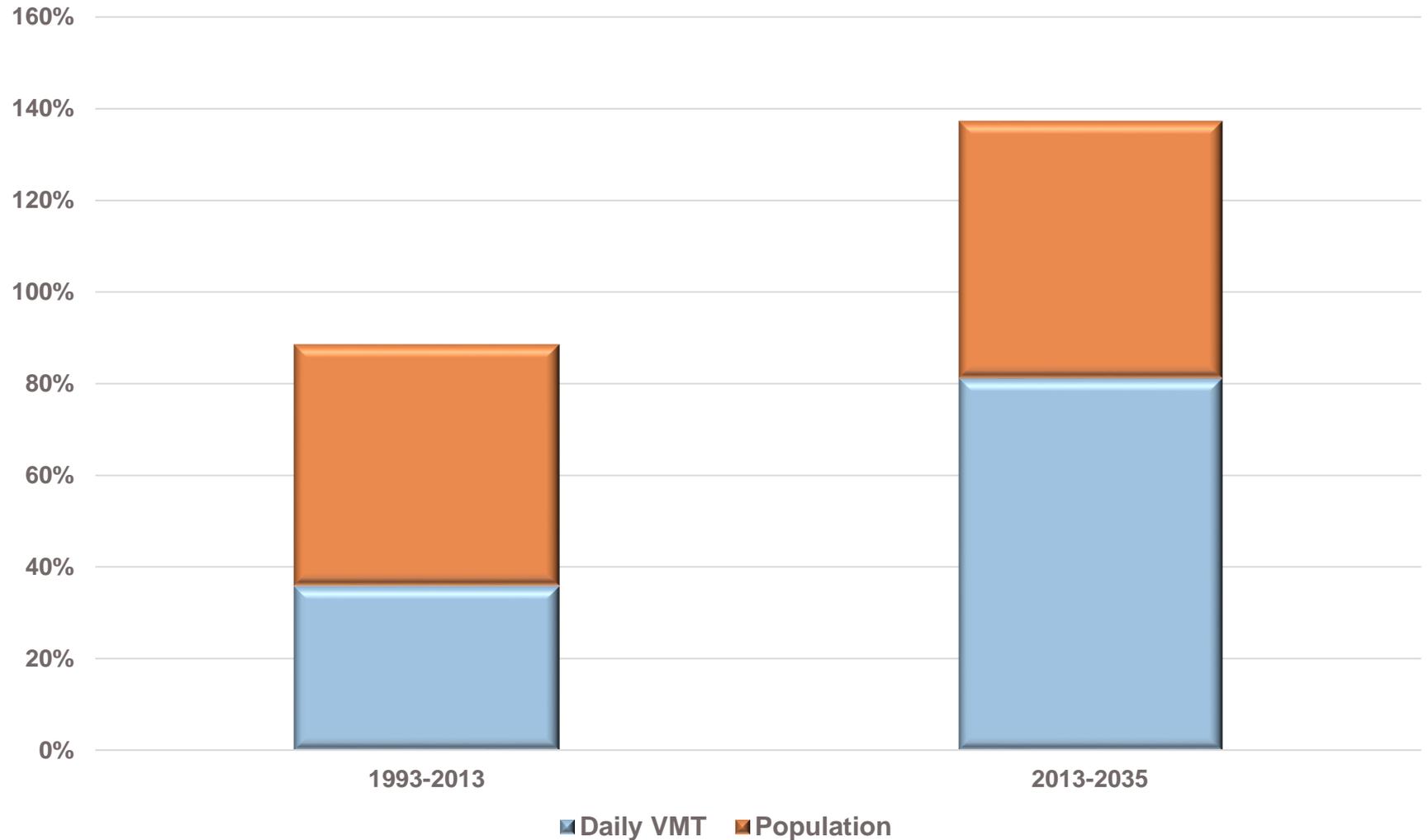
Coordination With Transportation Partners, Local Governments and Resource Agencies

120 Day Public Involvement Period with 12 Public Meetings



HOOD COUNTY STATISTICS

Percentage Increase from 1993 to 2035



CRITERIA AND OTHER POLLUTANTS

National Ambient Air Quality Standards (NAAQS)

- X Ozone (O₃)
- X Lead (Pb)*
- Carbon Monoxide (CO)
- Nitrogen Oxides (NO_x)
- Particulate Matter (PM)
- Sulfur Dioxide (SO₂)

Possible Future Standards

Greenhouse Gas Emissions
(i.e. Carbon Dioxide)

OZONE

Health Impacts

Sensitive Groups

People with Lung Disease

Children

Older Adults

Active People

Health Affects

Irritates Respiratory System

Reduces Lung Function

Inflames and Damages the Lining
of Lungs

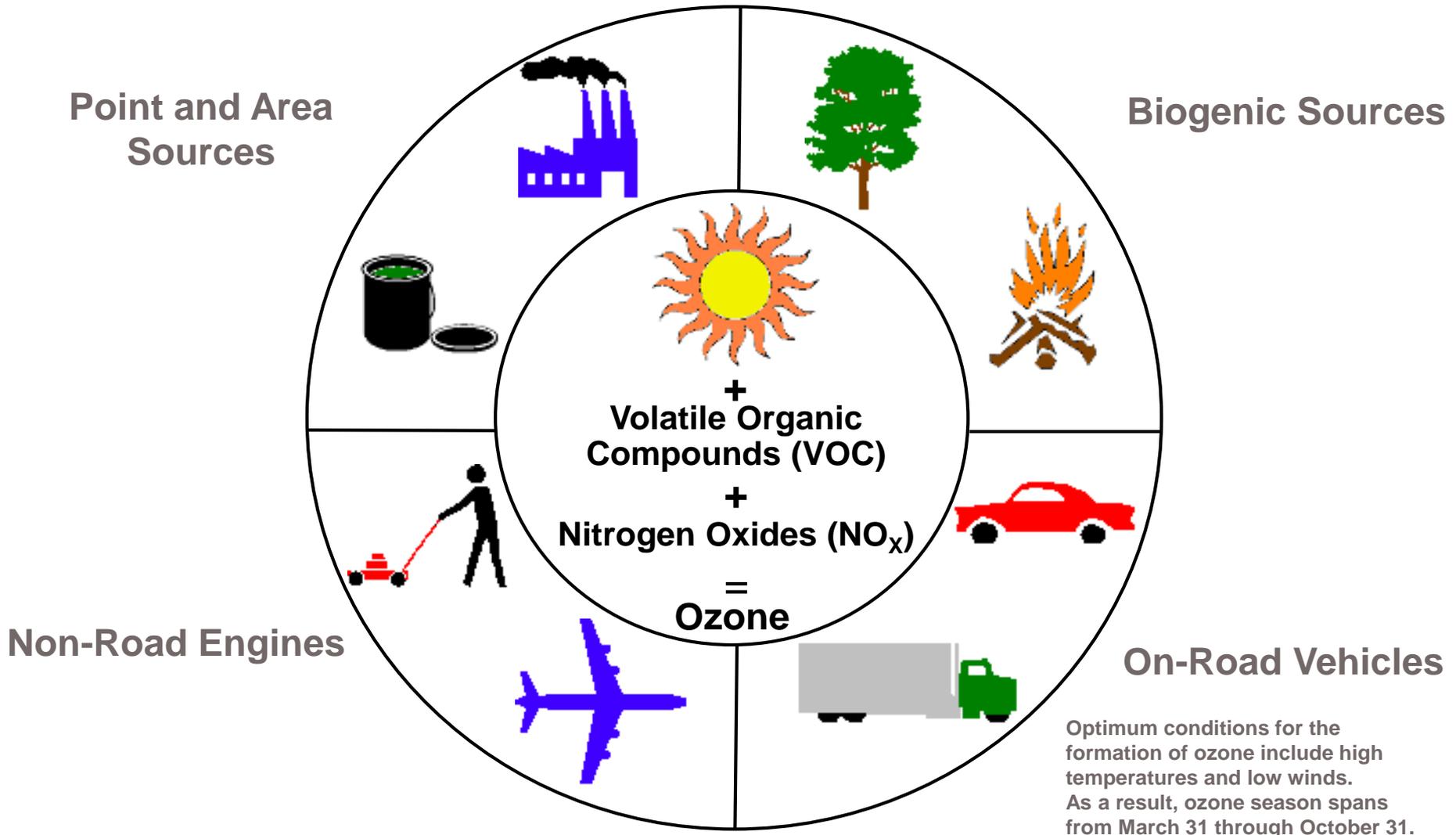
Makes Lungs more Susceptible to
Infection

Aggravates Asthma and Chronic
Lung Diseases

Permanent Lung Damage

HOW IS OZONE FORMED?

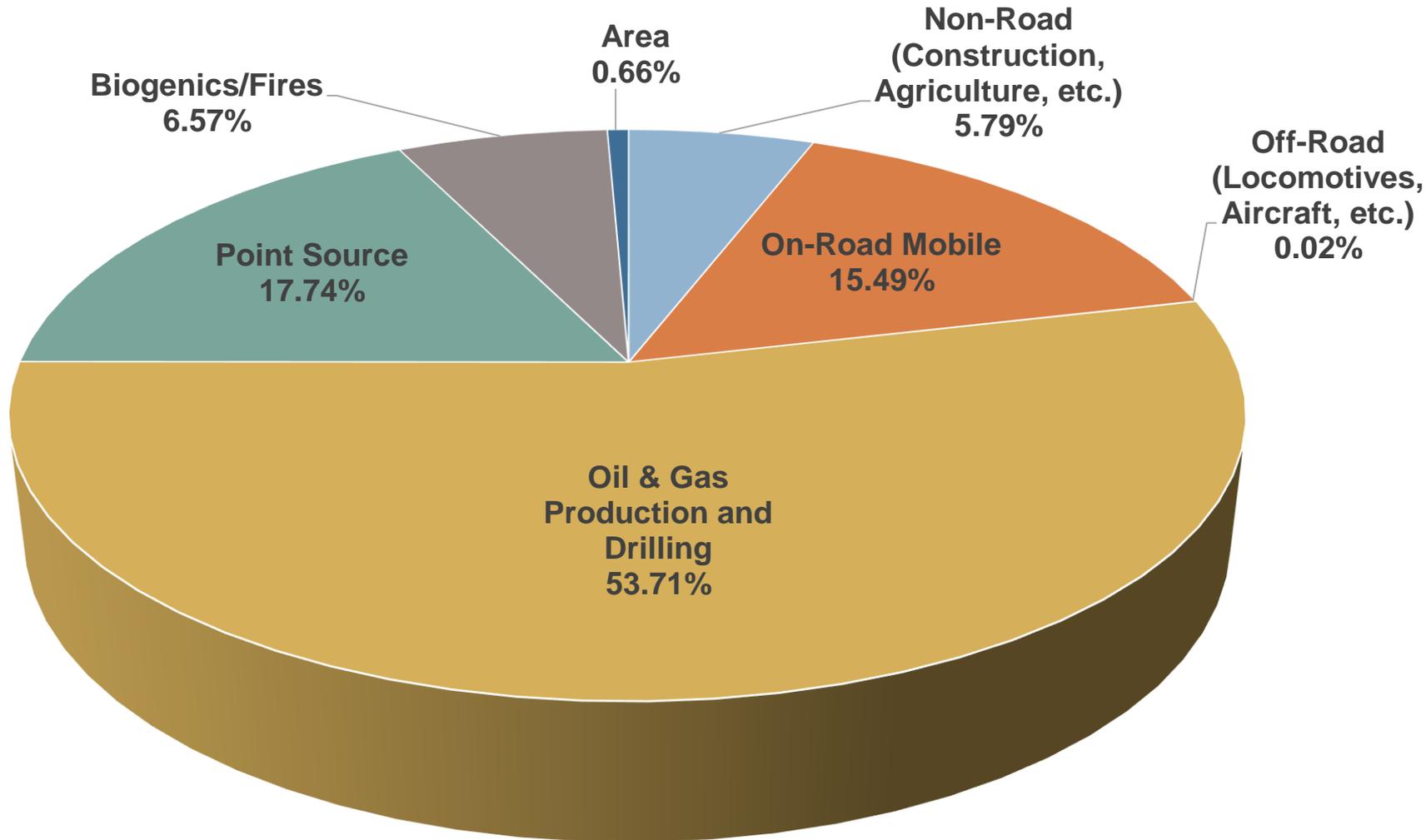
Emission Source Categories



Optimum conditions for the formation of ozone include high temperatures and low winds. As a result, ozone season spans from March 31 through October 31.

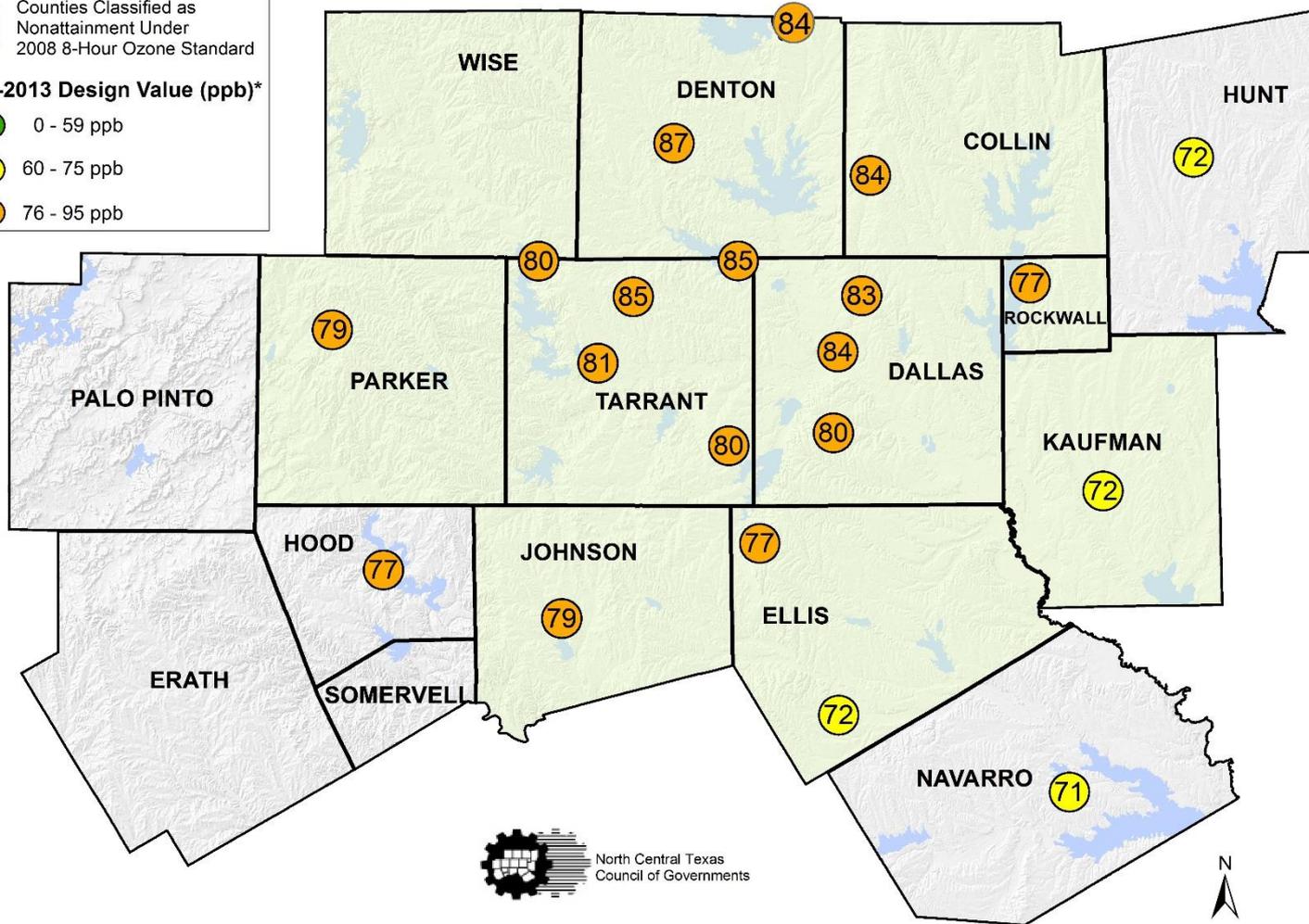
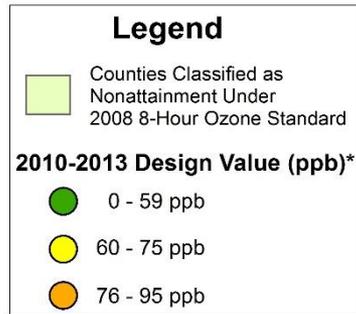
SOURCES OF NO_x EMISSIONS

2008 NO_x Emissions Hood County, TX



8-HOUR OZONE DESIGN VALUES

2013 Ozone Nonattainment Status*



Colors represent Air Quality Index Breakpoints Under 2008 Standard

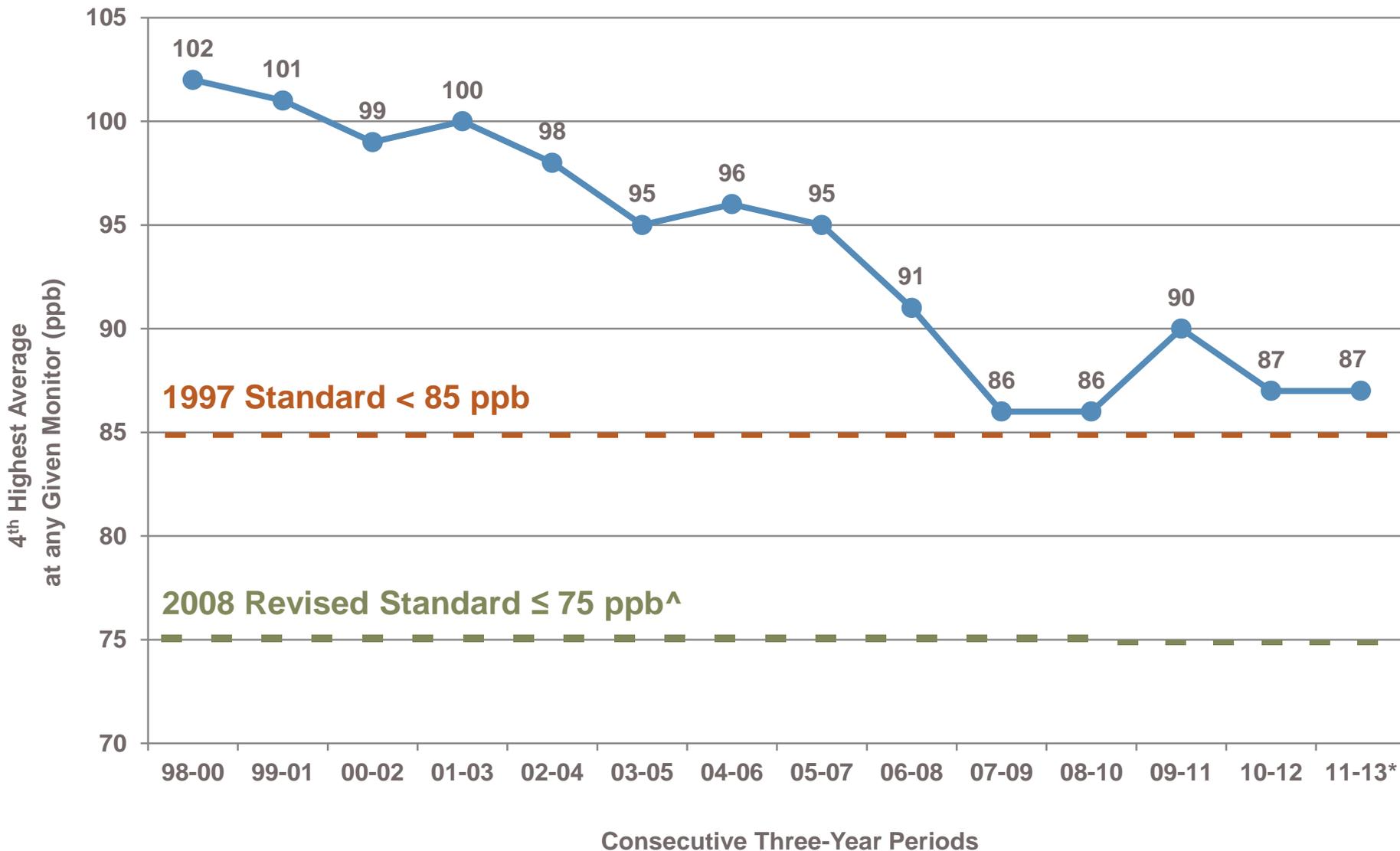
*Not a full year of data. Current as of 09/09/2013.

According to the U.S. 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 or equal to 75 parts per billion (ppb).

Source: NCTCOG Transportation Dept

2013 OZONE SEASON

8-Hour Ozone Historical Trends



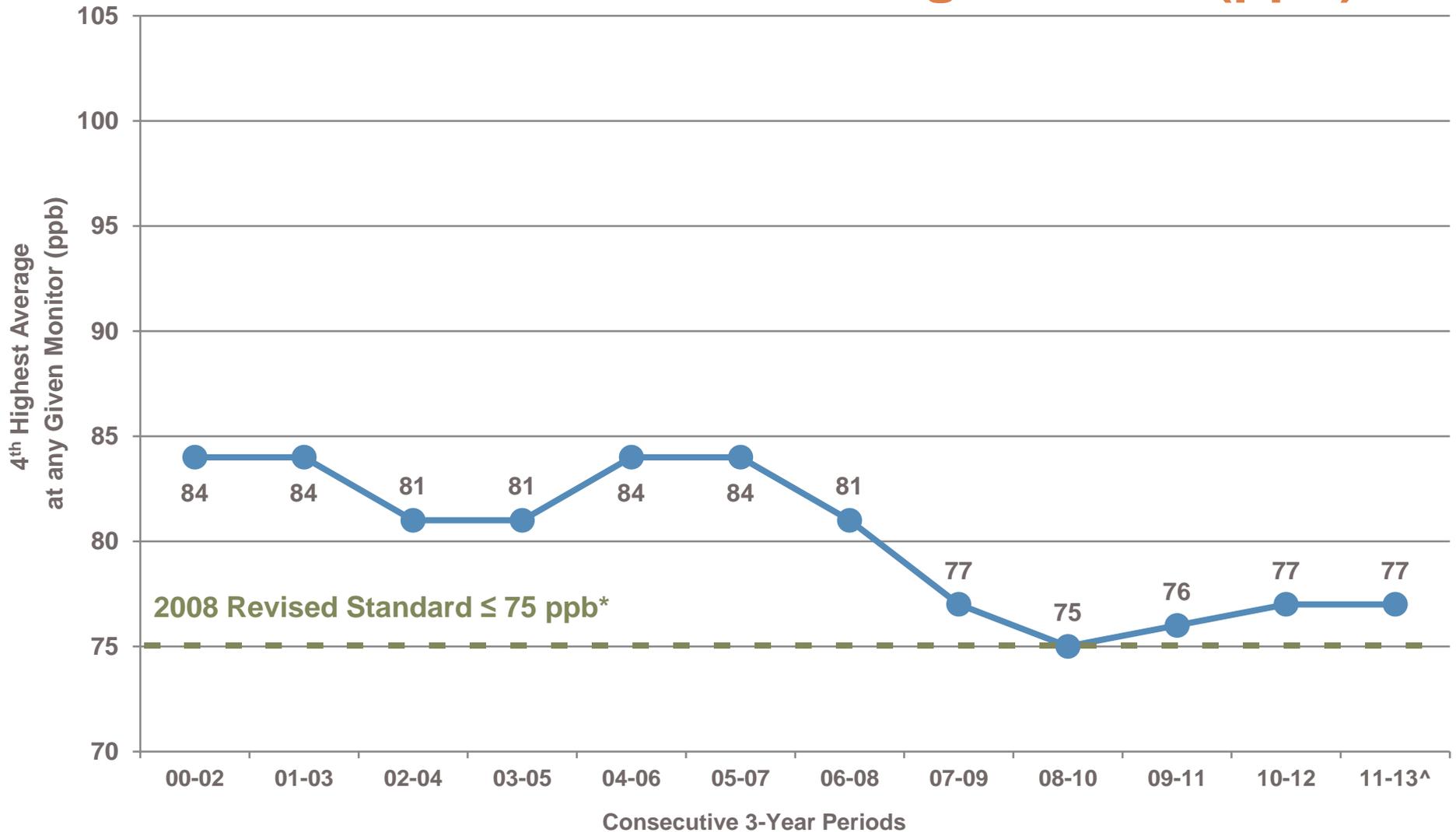
[^]Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is equal to or less than 75 parts per billion (ppb).

*Not a full year of data. Current as of 9/09/2013.

Source: http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_attainment.pl

HOOD COUNTY (GRANBURY MONITOR)

Historical 8-Hour Ozone Design Values (ppb)



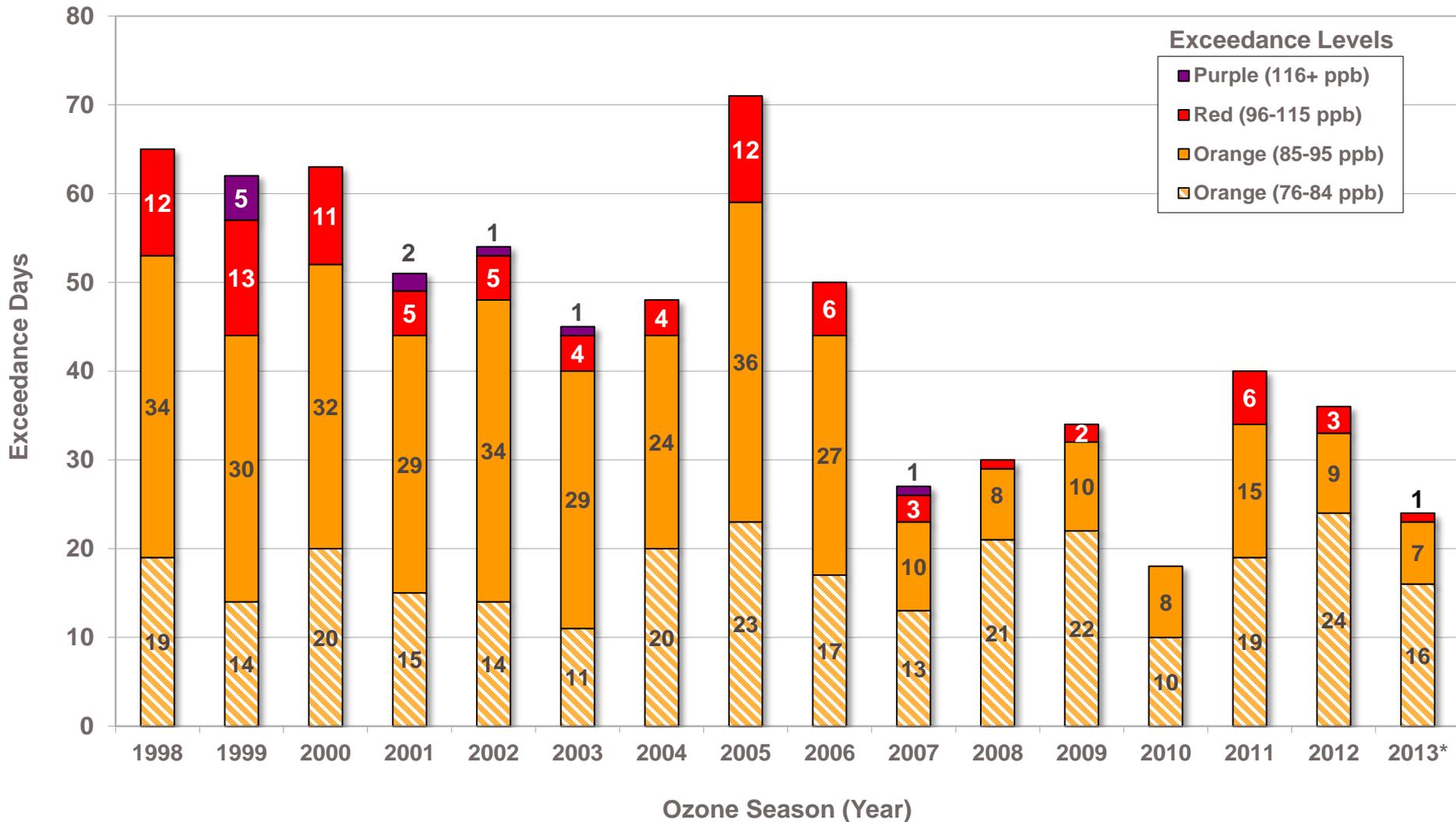
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2013 OZONE SEASON

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.

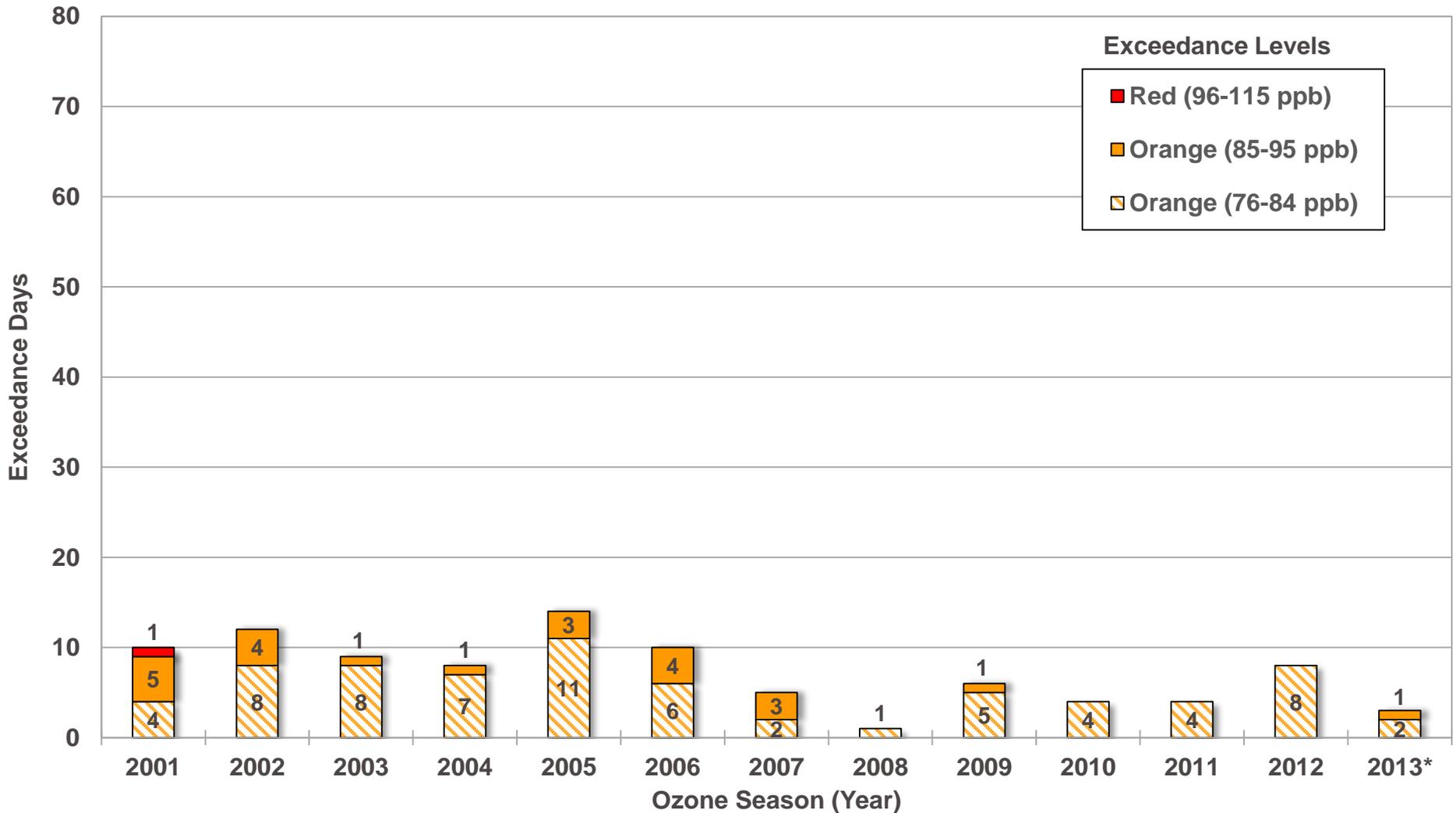
 = Additional level orange exceedance days under the revised standard that were not exceedances under the previous 84 ppb standard. (AQI level orange = 76-95 ppb)

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Source: TCEQ
http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl
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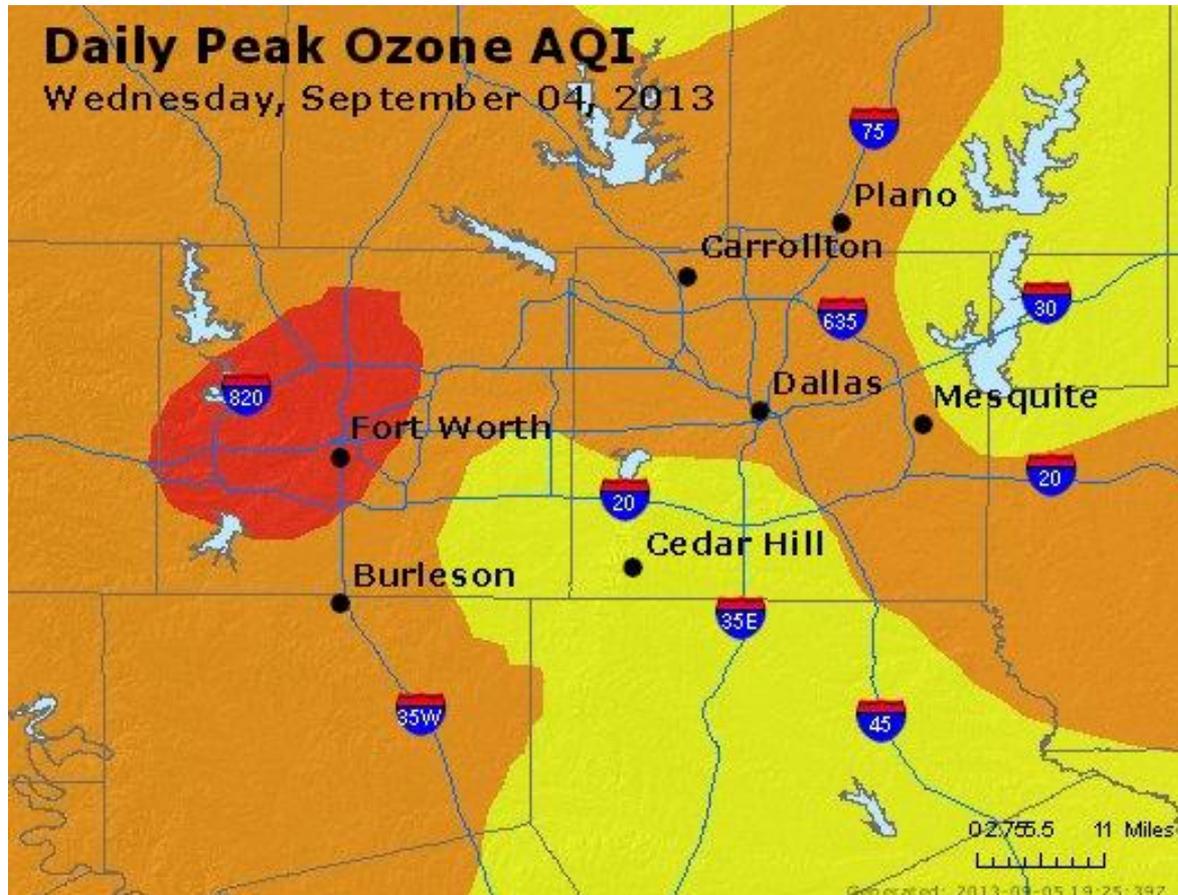
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HOOD COUNTY OZONE CONCENTRATIONS

Maximum Daily 8-Hour Average Was 93 ppb*



Good
Moderate
Unhealthy Sensitive Groups
Unhealthy
Very Unhealthy
Hazardous

EPA NONATTAINMENT REQUIREMENTS

Minimal Requirements for Newly Designated Areas*

Emissions Inventory & Emissions Statements

New Source Review/Emission Offsets

Basic Vehicle Inspection and Maintenance Program

Reasonably Available Control Technology and Measures

Reasonable Further Progress Emissions Reductions

Attainment Demonstration

Contingency Measures

NONATTAINMENT RISKS

Economy

- Limited Business Expansion
- Relocation of New Business

Public Costs

- Automobile Emissions Test
- Summer Blend Fuels

Local Government

- Decreased Tax Base
- New Policies

AIR QUALITY PROGRAMS

Did you know, approximately 10% of the automobiles are responsible for about 50% of the emissions?

Local Solutions



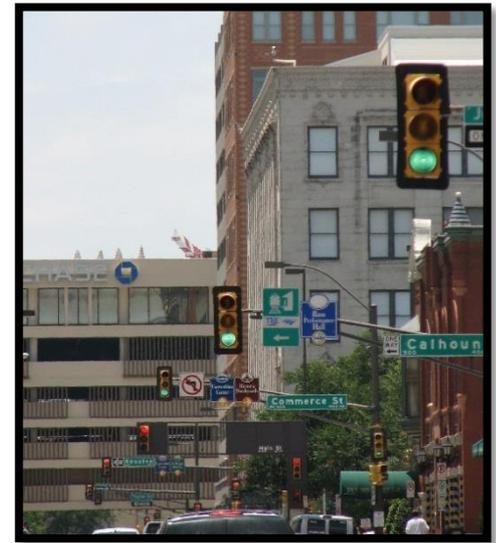
AIR QUALITY PROGRAMS

Did you know, 1 hour of idling uses 1 gallon of diesel fuel, which results in excessive emissions?¹

Local Solutions



Heavy-Duty Diesel Idle-Reduction Technology



Traffic Signalization

¹ One gallon of diesel fuel = 0.3 lbs. of NO_x
Source: <http://www.fueleconomy.gov/feg/co2.shtml> and Texas Emissions Reduction Plan (TERP)

AIR QUALITY PROGRAMS

Did you know, diesel vehicles only account for 8% of the vehicle miles of travel in our region, but are responsible for nearly 50% of the NO_x emissions?

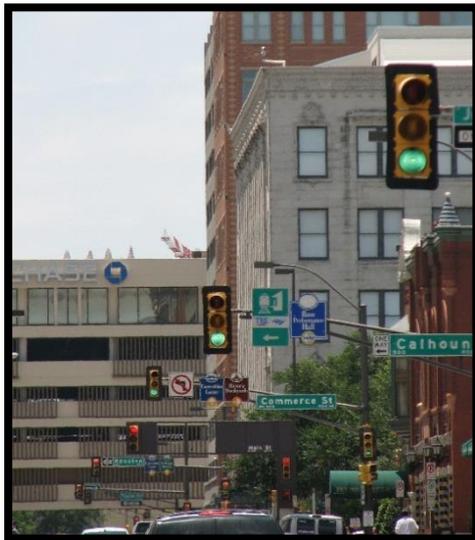
Local Solutions



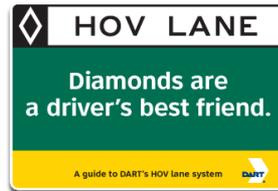
AIR QUALITY PROGRAMS

Did you know, vehicles moving at slower speeds emit higher emissions?

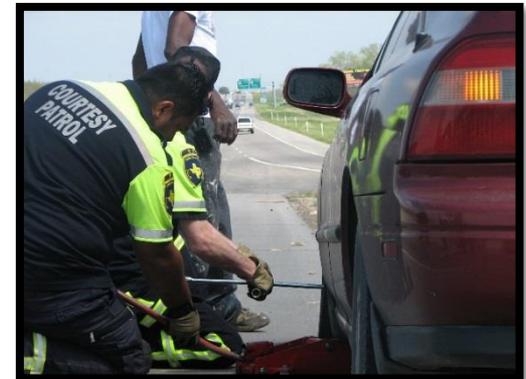
Local Solutions



Traffic Signalization



Intelligent Transportation Systems



Courtesy Patrol

CONTACT INFORMATION

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