

# Community Action Network

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Bill Gill, Capital Area Council of Governments

Pharr Andrews, City of Austin/Austin Energy

# Bill Gill

Air Quality Program  
Capital Area Council of  
Governments



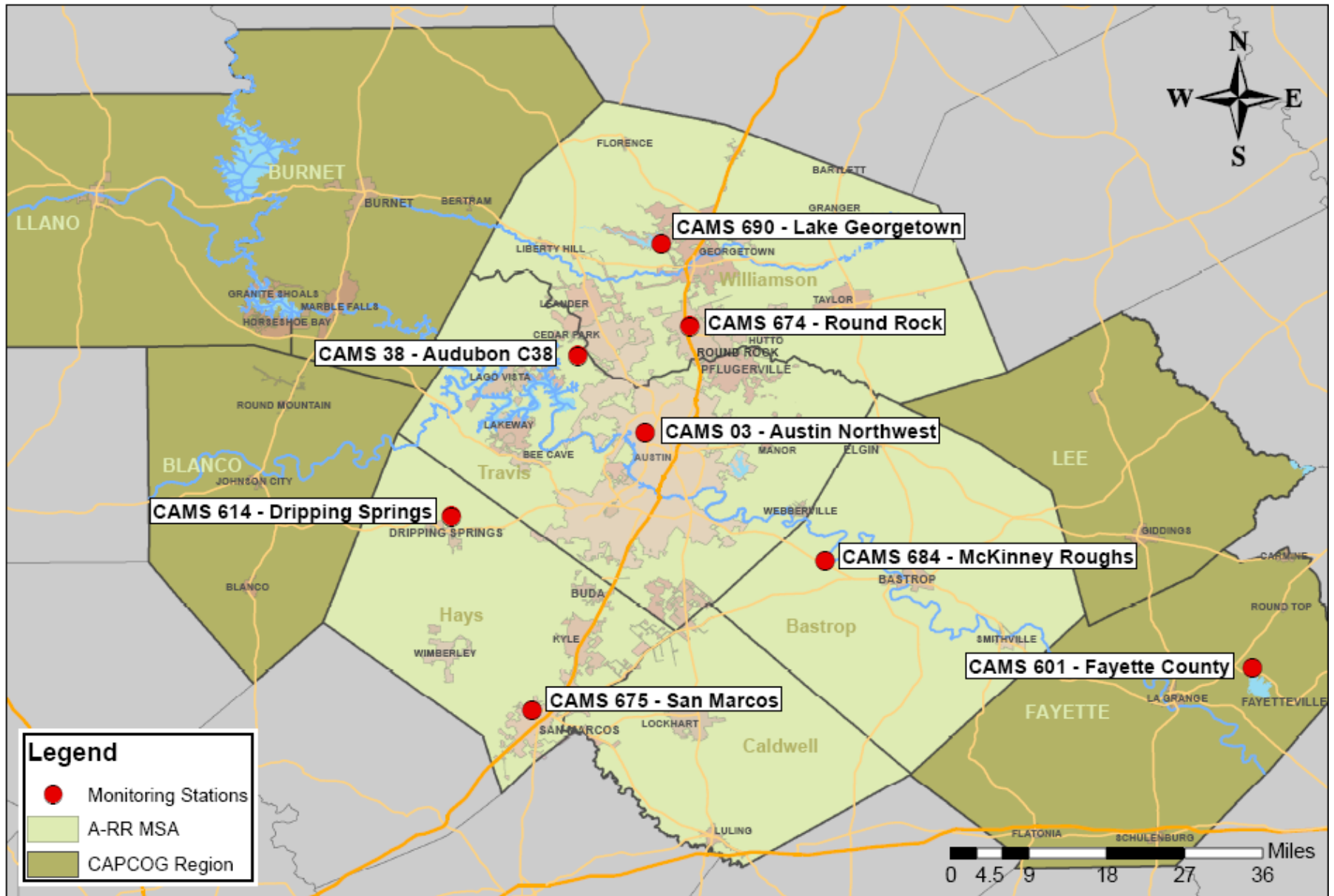
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- What is Attainment?
  - Austin area update
  - Revised ozone standard

# What Does Ozone Attainment Mean?

- Ground-Level Ozone is a federally regulated air pollutant formed from NO<sub>x</sub> + VOC + Sunlight
- EPA revised the standard to 75 ppb in 2008 and now is proposing a value between 60 to 70 ppb
- Design Value is 3-Year average of the annual 4<sup>th</sup> highest 8-hour ozone maximum at regulatory monitor
- EPA designation based on design value from 2008 – 2010 monitoring data

# Quality of Place Impacts of Non-Attainment

- Ozone standard set to protect public health
- High ozone causes: irritation to throat and lungs, diminished lung capacity, aggravation of asthma or other respiratory problems
- Increased health care costs and school absences occur
- Exposure to ozone damages sensitive vegetation and trees

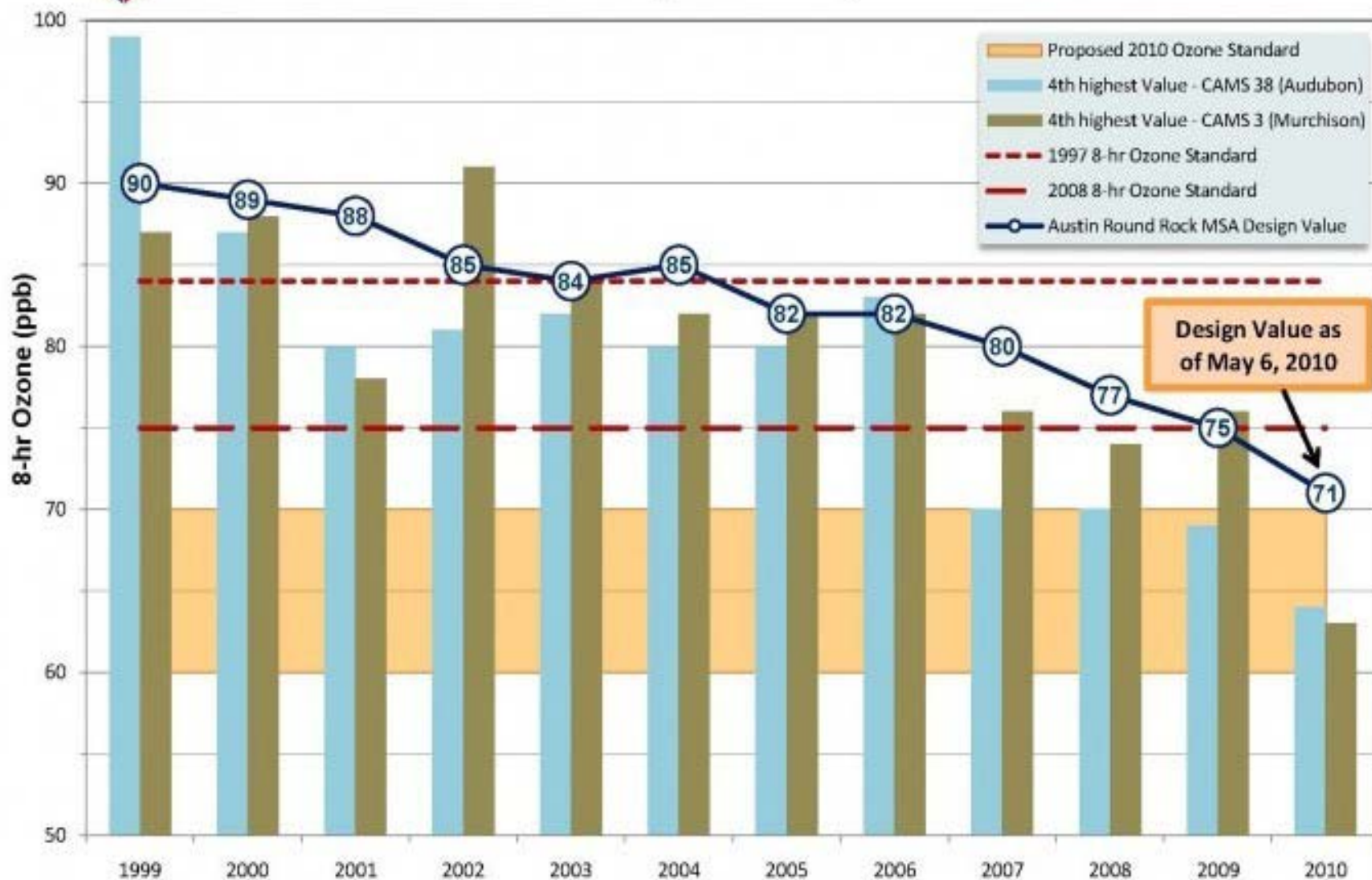


# Overview

- Revised Ozone Standard
- Designation Process
- Boundaries
- Classifications
- State Implementation Plan (SIP)
- Regional Initiatives
- Timeline



# Design Value Trend for Austin-Round Rock MSA (1999-2010)



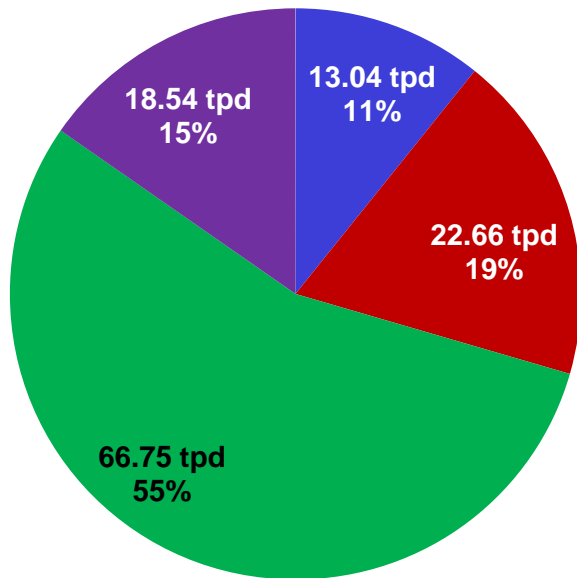
Note: Design value is calculated as the 3-year average of the 4th-highest daily maximum 8-hour average ozone concentrations measured annually at each regulatory monitor

# EPA Criteria for Consideration of Counties to Include in Designated Nonattainment Area

- Air quality data
- Emissions data (location of sources and contribution to ozone concentrations)
- Population density and degree of urbanization (including commercial development)
- Traffic and commuting patterns
- Growth rates and patterns
- Meteorology (weather/transport patterns)
- Geography/topography (mountain ranges or other air basin boundaries)
- Jurisdictional boundaries (e.g., counties, air districts, existing nonattainment areas, Reservations, metropolitan planning organizations [MPOs])
- Level of control of emission sources

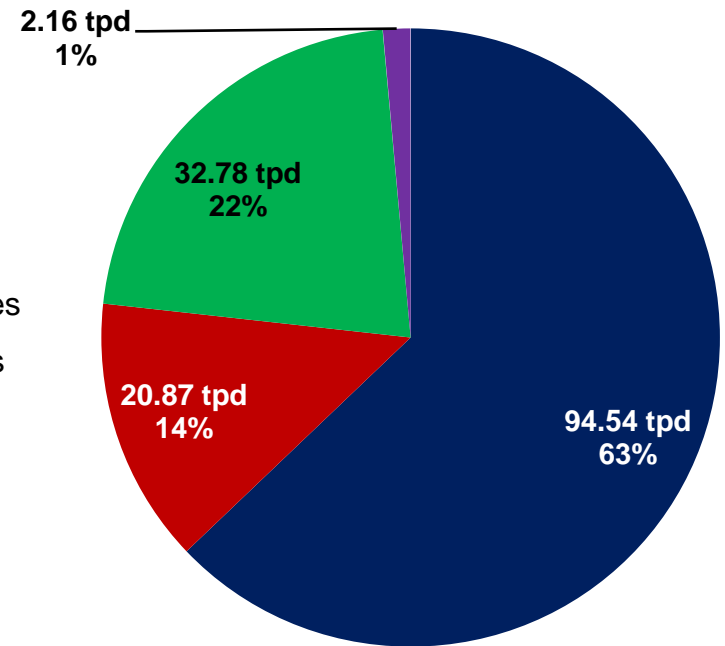
# Anthropogenic Sources of NOx and VOC in the A-RR MSA (2007)

## 2007 NOx Emissions



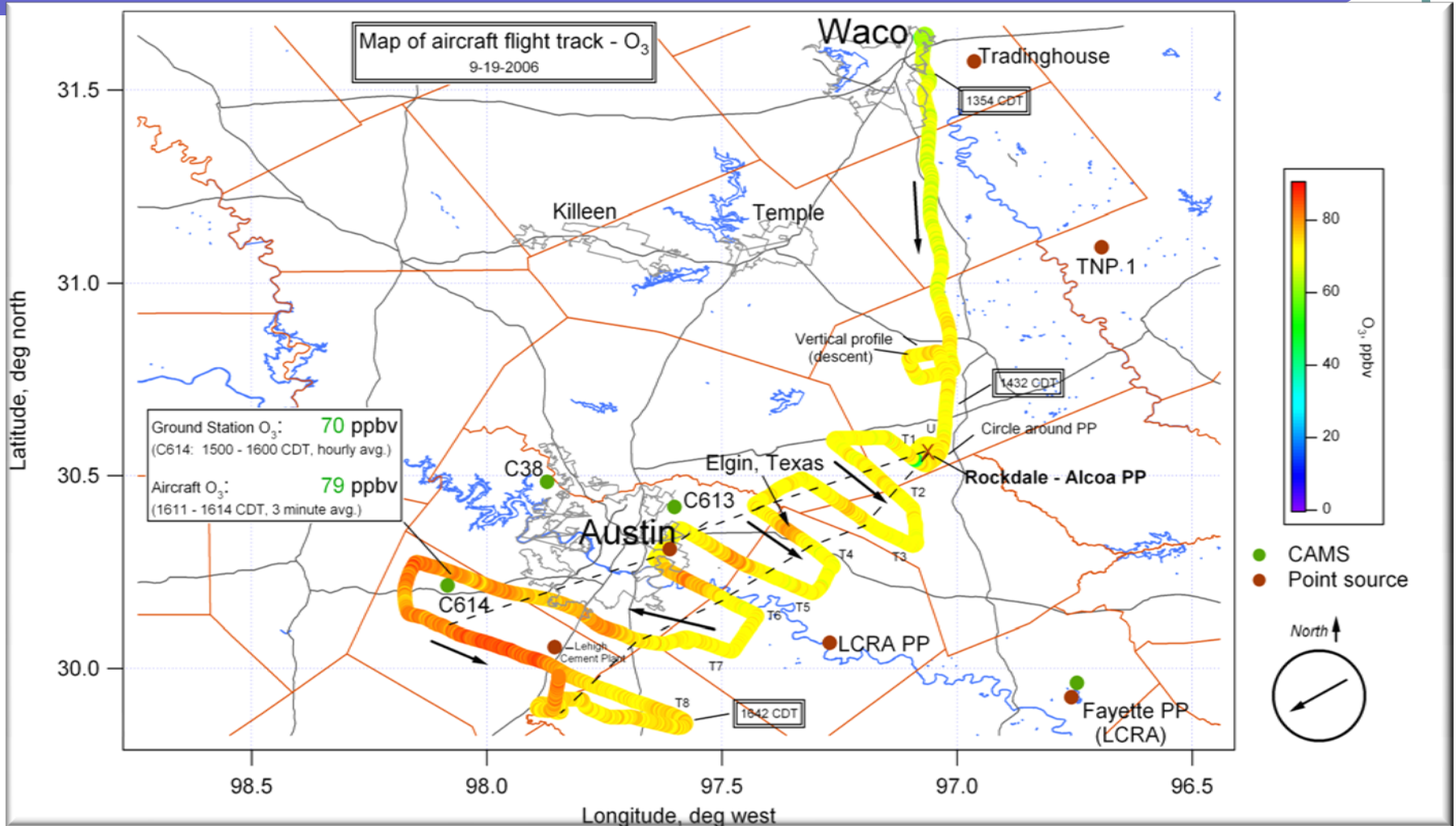
- Area Sources
- Nonroad Mobile Sources
- Onroad Mobile Sources
- Point Sources

## 2007 VOC Emissions

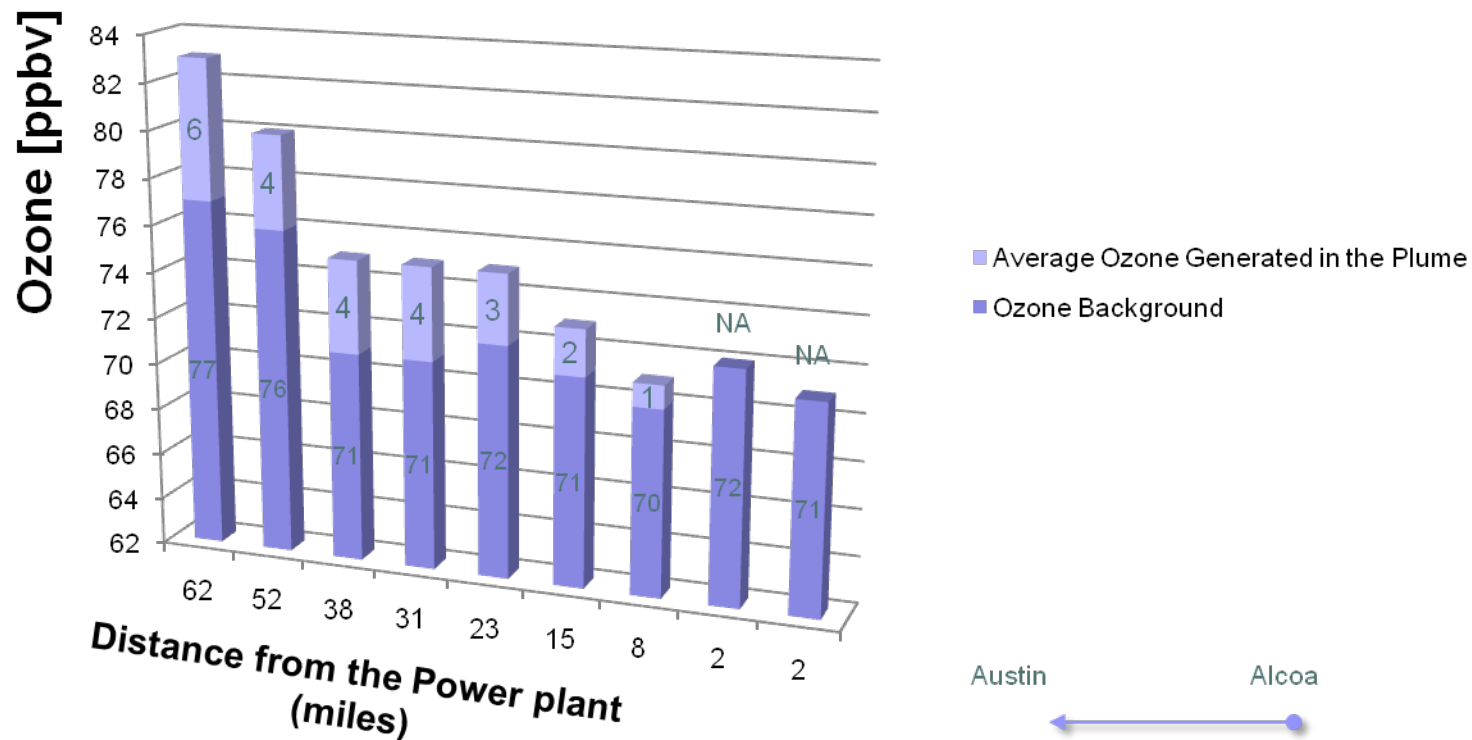


Source: On-Road Mobile –TTI, Point Source – TCEQ 2006 EI, Non-Road Mobile - NMIM

# Sadow Flight (Alcoa Rockdale) O<sub>3</sub> Plume

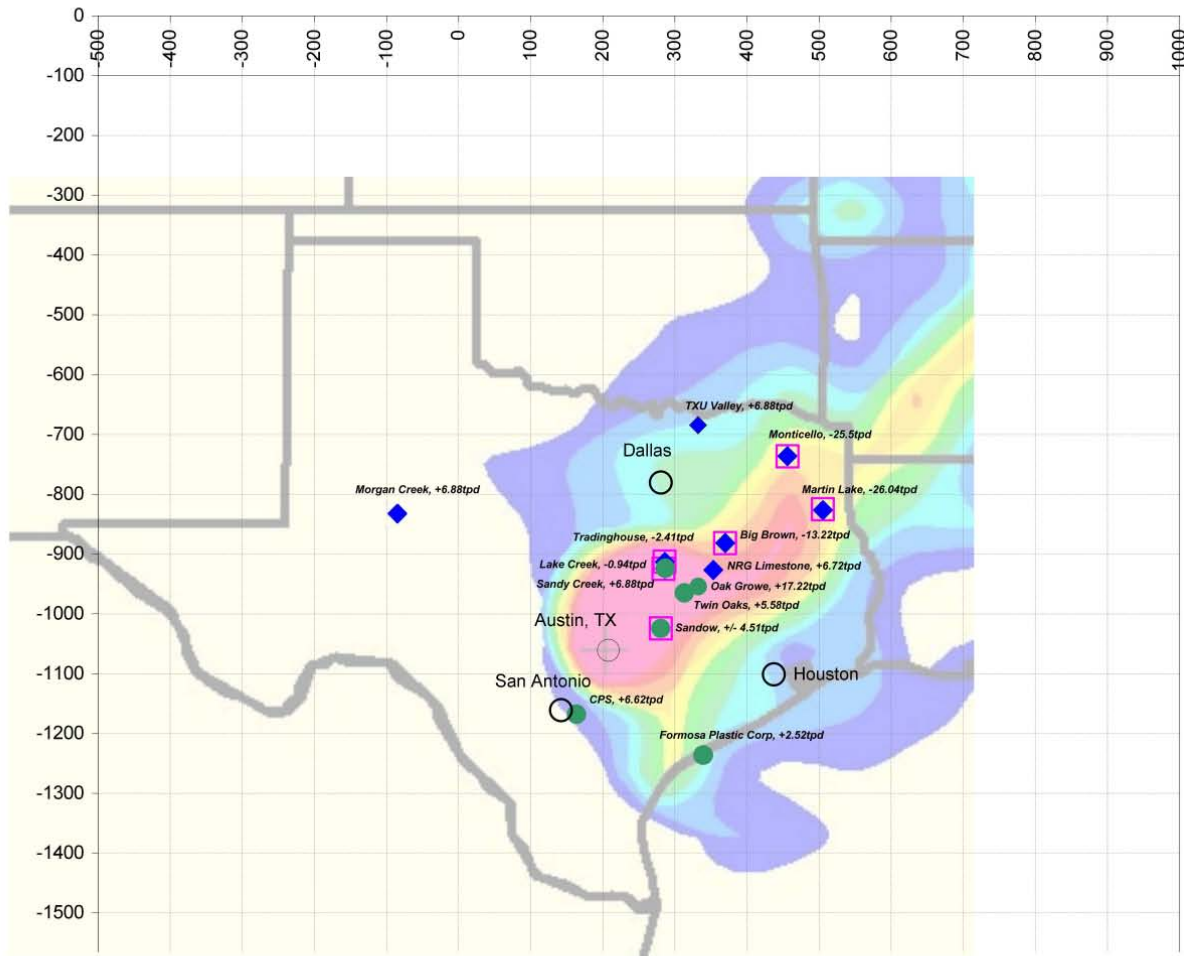


# Sandow 4 Power Plant Ozone Contributions



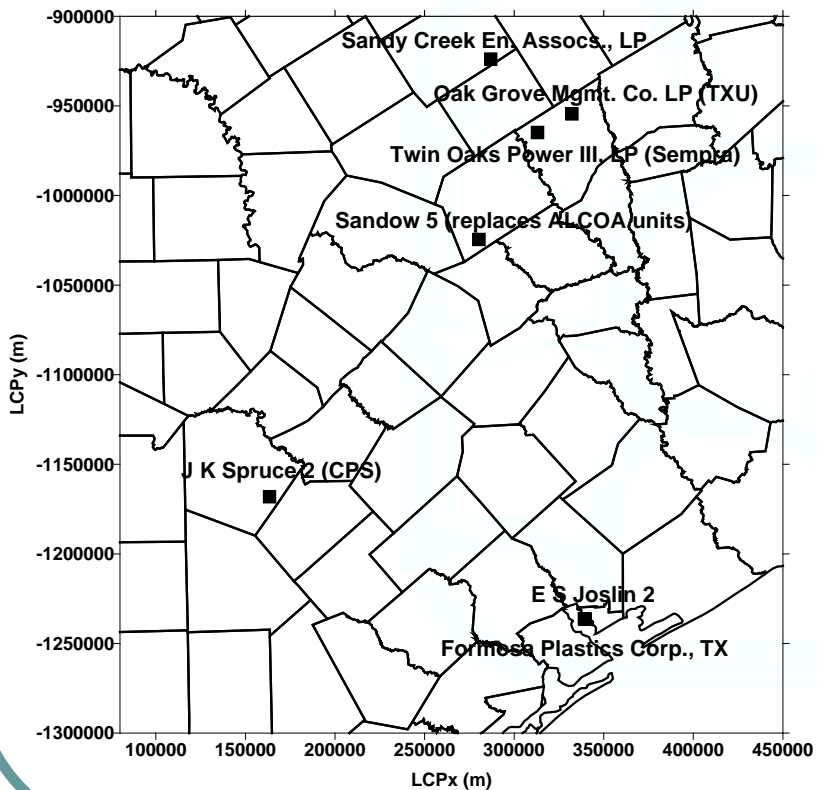
# Wind Trajectories

## Potential Impact on Austin MSA During September



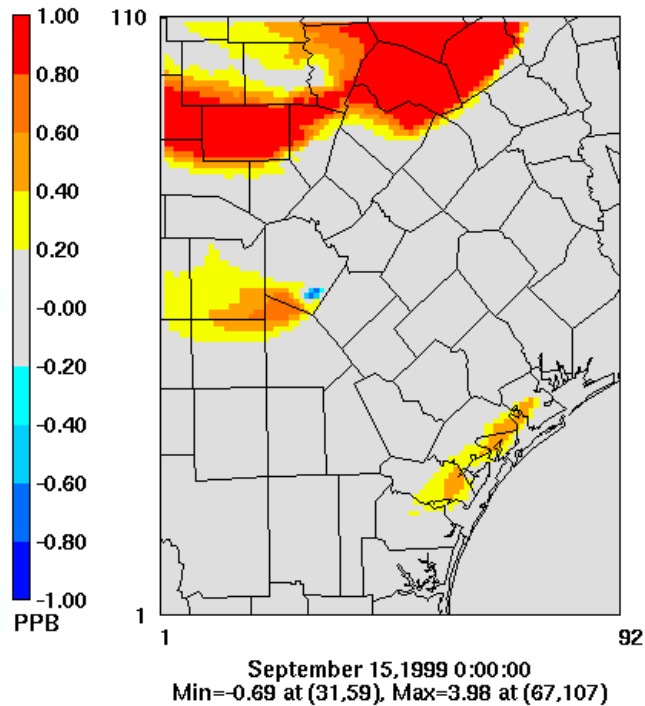
Total Emissions = 102.80 tpd  
 Total Offsets = 72.62 tpd  
 =====  
 Net Emissions (NOx) = 30.18 tpd

# Photochemical Modeling



Difference in Daily Maximum 8-hr Average Ozone

All Power Plants - 2007 Future Case  
a=fine2.070915.03.eight, b=fine2.070915.03.eight



# Transportation Impacts of Non-Attainment

- Transportation Conformity greatly increases costs and time for conducting transportation planning
- Difficulty in demonstrating conformity with SIP emissions budgets can delay or eliminate transportation projects
- FHWA can withhold federal transportation funding if the state fails to produce an acceptable air quality plan for the area

# Economic Development Impacts of Non-Attainment

- Could change perception that the Austin region is an environmentally desirable place to live
- Increased cost for funding emission controls results in costs to businesses and public
- Restrictions placed on existing business expansions or new business operations
- Emission reduction measures contribute to improved public health and lower medical expenses

# If Nonattainment – What Next?

- Continue with existing 8-O3 Flex measures to minimize adverse health impacts of high ozone
- Carefully review and comment on EPA implementation requirements making note of:
  - Alignment of attainment dates with upwind areas
  - Need to evaluate impacts on urban area of large new point sources outside of MSA
- Maintain active involvement of local officials in control strategy selection for the region by TCEQ



# Pharr Andrews

City of Austin

Austin Climate  
Protection Program

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- Regional Efforts
  - City Efforts
  - Individual Efforts

# 8 Hour Ozone Flex Program

- Voluntary agreement between EPA, TCEQ and local governments
  - 1-Hour Ozone Flex Plan (2002)
  - Early Action Compact (2004)
  - 8-Hour Ozone Flex Program (2008)
- EPA anticipates proposing a new initiative for the new ozone standards

# Emission Reduction Measures

- Ongoing reduction measures
- State assisted measures
  - Most apply MSA-wide
  - 2 county inspection & maintenance program
  - Product of stakeholder work groups
- Local measures (no state action needed)
  - Select from menu of options, provides choice
  - Reductions proportionate to contribution
- Measures reported cumulative

## Ongoing reduction measures implemented by local governments/participating organizations:

- Commute Solutions
- Clean Air Force
- Clean Air Partners Program
- Clean School Bus Program
- Clean Cities
- Austin Climate Protection Plan
- Transportation Emission Reduction Measures (TERMS)

# State Assisted Measures

## ***STATE ASSISTED MEASURES***

- **Vehicle Emission Inspection & Maintenance**
- **Locally Enforced Idling Restrictions**
- **Stage 1 Vapor Recovery**
- **Degreasing Requirements**
- **Cut-back Asphalt Restrictions**
- **Low Emission Gas Cans**
- **\*Texas Emission Reduction Program (TERP) Grants**
- **\*Local Power Plant Reductions**

**\*State-assisted measures not requiring new state rules for implementation**

# Over 200 Local Commitments

- Tree Planting
- Ozone Action Day Response program
- Fleets
  - Cleaner vehicles and fuels
  - Right-sizing, maintenance
- Resource conservation
- e-Government and Multiple locations
- Transportation emission reduction projects

# CoA Internal Ozone Reduction Efforts



- Targets City Employee
  - Try Transit
  - Transform your trip
  - Walk, bike, Roll
  - Fresh Air Friday
  - City Cycle
  - Newsletters
  - City Source
  - Break room Posters

## Actions individuals can take for a better air quality future?

- **Drive Less** – Combine trips, walk, bike, carpool, ride the bus.
- **Maintain your vehicle** – get regular oil changes and tune ups
- **Power Down** – Turn off unused electronic equipment.
- **Idle less**
- **Fuel your vehicles in the evening**
- **Use electric or manual lawn and garden equipment**

## Actions Business and organizations can take for a better air quality future?

- Implement and Ozone Watch/Warning Program
- Implement a Commute Solutions Program
- Enact policies to reduce vehicle emissions
- Enact policies to reduce other operational emissions

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