CAPCOG & AIR QUALITY

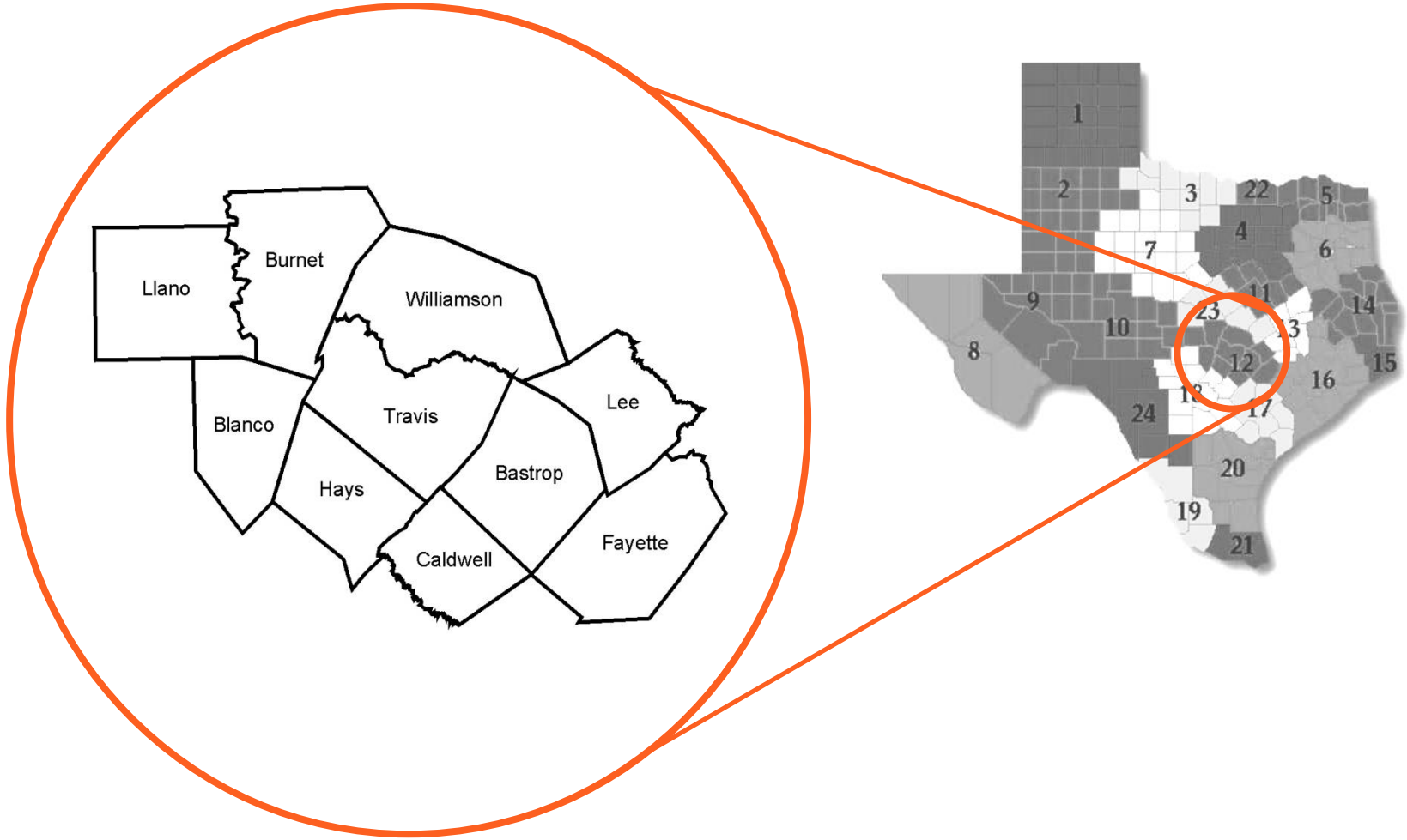
Air Quality Professionals Forum: Summer Meeting

August 10, 2023

CAPCOG – Regional Planning Commission in Statute; more often called a COG.

- Emergency Communications 9-1-1
- Area Agency on Aging/Aging & Disability Resource Center
- Homeland Security Planning & Training
- Regional Law Enforcement Academy
- Air Quality Planning
- Solid Waste Planning
- Economic Development Analysis & Technical Assistance
- Transportation Planning

Ten – county service area;
State of Texas planning region 12



CAPCOG's AQ Program

- Support for Clean Air Coalition
- Technical Assistance to CAC Members
- Outreach and Education Activities - Air Central Texas program
- Annual Air Quality Report
- Monitoring
- Emissions, Control Strategy, Monitoring, and Modeling Data Analysis
- Other Studies and Planning Activities

Clean Air Coalition

- Goals: maintaining compliance with the NAAQS, improve air quality, provide guidance
- Regular members: Cities and Counties that have made commitments and appointed an elected official to represent them – 24 members
- Supporting members: any type of organization that supports the purpose of the CAC that wishes to participate – 21 members

Be Air Smart

- **Air Central Texas, Clean Air Force of Central Texas,** and **Austin FC|Atlas'** initiative to support air quality education by providing free Particulate Matter (PM) sensors to local organizations

2023 Air Central Texas Awards

- ACT Awards celebrate the positive contributions of organizations and individuals to regional air quality in Central Texas,
- Award categories include:
  - Outstanding Organization;
  - Media;
  - Environmental Education;
  - Research;
  - Air Aware Student Leadership; and
  - Air Quality Leadership

2022 Annual MSA Air Quality Report

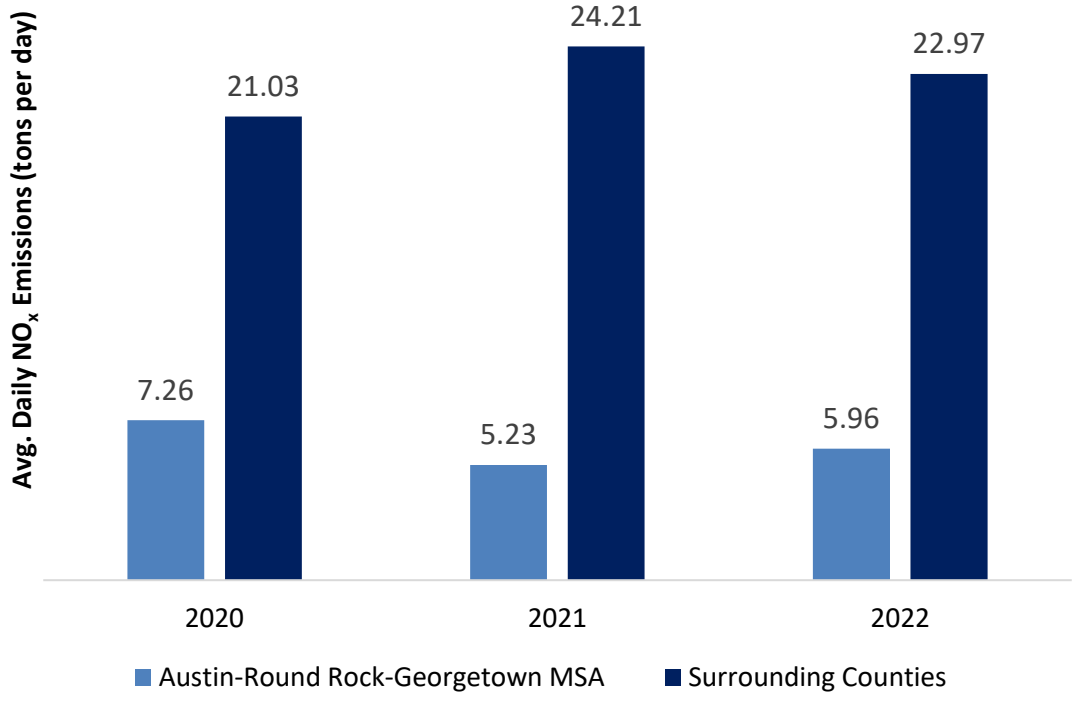
HIGHLIGHTS

Draft report released
July 31, 2022

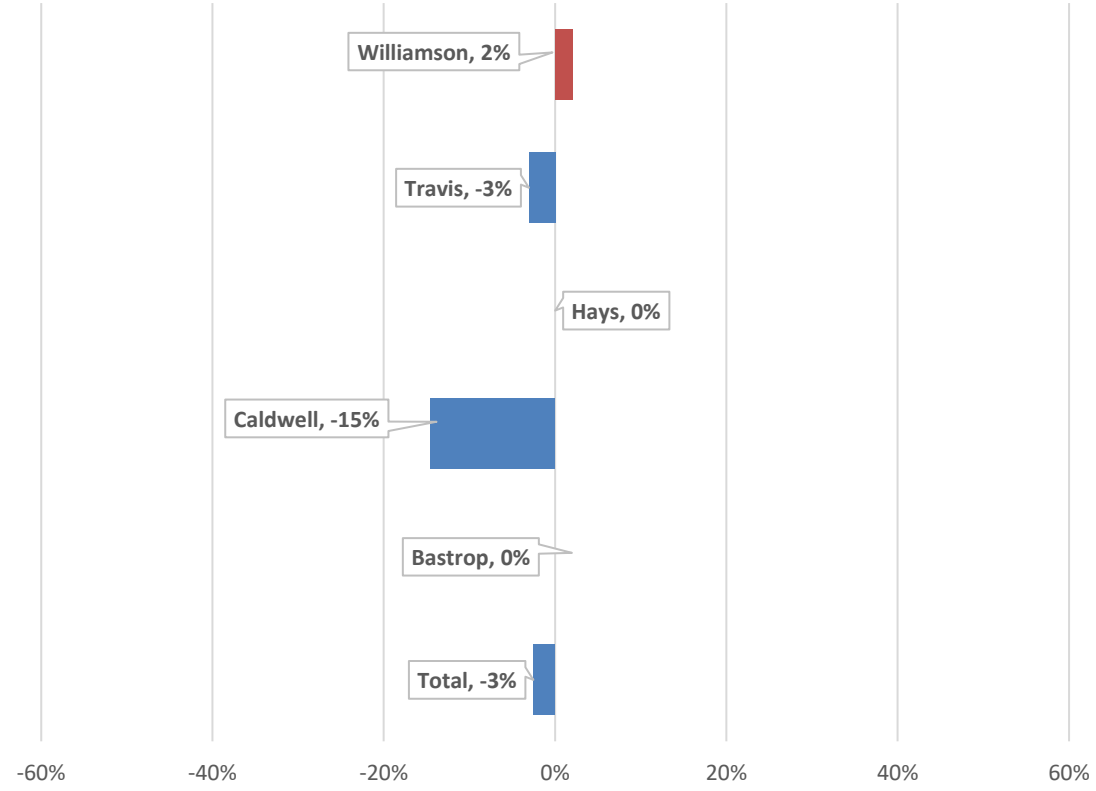
- The region's 2022 air pollution levels continued to **meet all federal air quality standards**.
- The region measured moderate or worse air quality on **47% of days** in 2022. In 2021 the region experienced **39% of days**.
- **2 days** were considered "unhealthy" due to Ozone in 2022, **32 days** were considered "unhealthy for sensitive groups" and **142 days** when air pollution levels were considered "moderate." In 2021 **3 days were** "unhealthy for sensitive groups" while **138 days** were "moderate."
- **25 CAC members** reported on measures implemented in 2023

2021-2022 Point Source Emissions Inventory

Average Daily May – Sep. NO_X Emissions from EGUs in MSA and Surrounding Counties, 2020-2022



2020 to 2021 NO_x Emissions Percentage Change, by County



O_3 Emission Reduction Measures

- Tier 1 Measures include:
  - Educating employees about regional air quality and encouraging them to sign up for daily air quality forecasts and Ozone Action Day alerts;
  - Where feasible, encouraging employees to telecommute at least once a week and on all Ozone Action Days;
  - Encouraging employees to take low-emission modes of transportation, such as carpooling, vanpooling, transit, biking, and walking; and
  - Conserving energy, particularly on Ozone Action Days;

- Tier 2 Measures include:
  - Educating the public about regional air quality and encouraging them to sign up for daily air quality forecasts and Ozone Action day alerts
  - Provide incentives to employees to avoid single-occupancy vehicle commuting, particularly on Ozone Action Days;
  - Optimize combustion and pollution controls for NO_x reductions, particularly on Ozone Action Days;
  - Purchase higher-grade gasoline with lower sulfur content in August and September; and
  - Enforce vehicle idling restrictions within the community

$PM_{2.5}$ Reduction Measures

- Reduction measures are categorized as:
  - Implement within own organization's operations;
  - Encourage or require 3rd party organizations to implement; and
  - Educate and encourage the public at large to implement
- Reduction measures include:
  - Reduce PM emissions from construction and demolition activities;
  - Reduce PM emissions from road dust;
  - Reduce emissions from mobile sources year-round;
  - Promote awareness of health effects of PM air pollution; and
  - Installation of additional $PM_{2.5}$ monitors within the region

Mobile Emissions Lab Study

- Partnership with University of Houston to deploy a mobile emissions lab in the region
- The lab will be able to move around the region and measure emission
- Take place in Oct. 2023
- Will measure the following emissions
  - ozone (O_3),
  - nitric oxide (NO),
  - nitrogen dioxide (NO_2),
  - total reactive nitrogen (NO_Y),
  - carbon monoxide (CO),
  - sulfur dioxide (SO_2), and
  - Meteorological parameters (wind speed, wind direction, ambient temperature, relative humidity, planetary boundary layer height, and photolysis rate of nitrogen dioxide (jNO_2))

EPA Enhanced Air Quality Monitoring Grant Projects

Speciated Monitor

- Awarded $206,540
- Fund one set of speciated $PM_{2.5}$ research-grade monitors

Continuous Monitors

- Awarded $453,732
- Fund **up to seven** continuous $PM_{2.5}$ research-grade monitors
- Fund **up to 20** PurpleAir PM sensors

Emission Inventory Work

- Mine & quarry equipment EI project, this project includes:
  - refining understanding of NO_x emissions from local mine & quarry equipment
  - Development of nonpoint (PM) emissions study
- Reviewing EPA's National Emissions Inventory for the region to see opportunities for refinements
- On-Road emission inventory work

Thank You

Capital Area Council of Governments
www.capcog.org

Ramon Zarate
Air Quality Program Specialist
rzarate@capcog.org
512-916-6185