

# Britney Carteret

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## Ground Level Ozone

- What is GLO and How is it Produced & SMOG
- How is GLO Measured and Reported
- San Antonio GLO Levels
- Moderate Non-Attainment of Ozone Levels
- Potential ramifications of Non-Attainment

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Public Health

## Ground Level Ozone

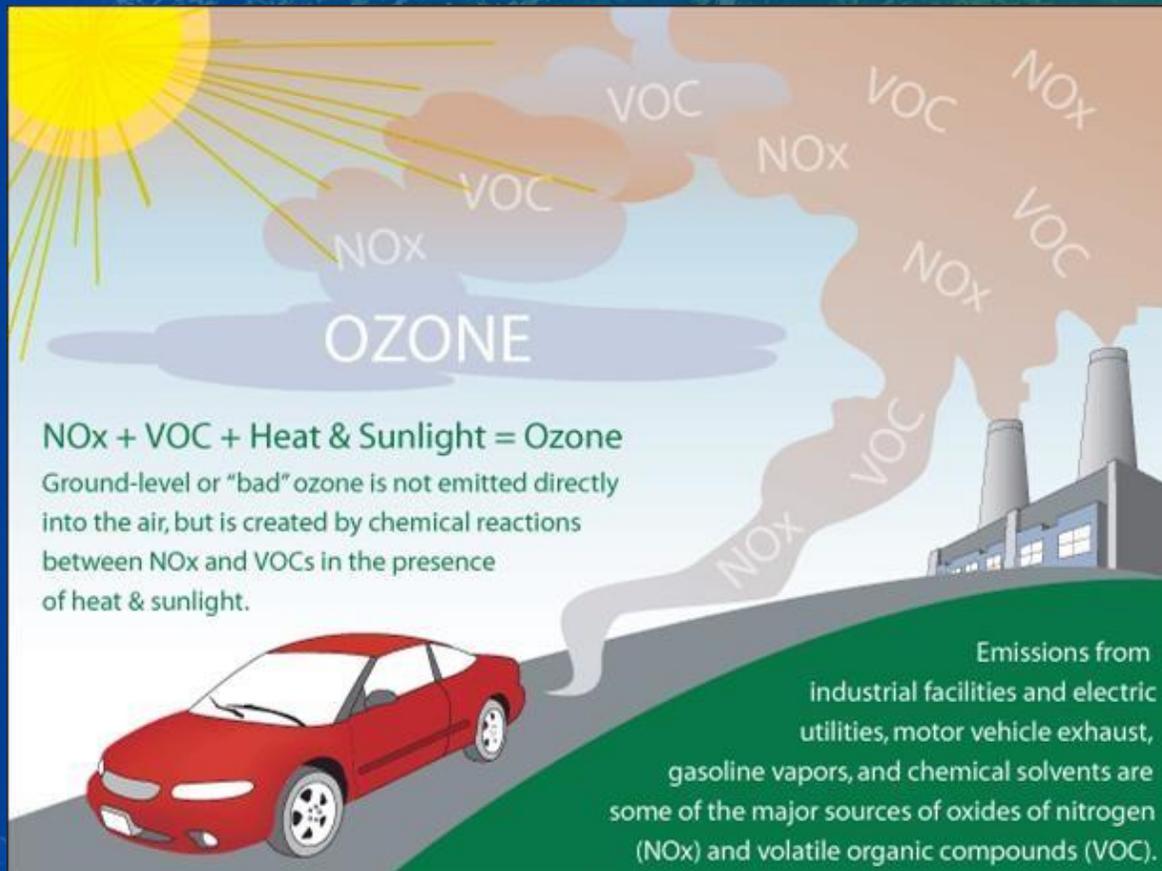
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# Ground Level Ozone

OZONE: “Good up high – Bad nearby”

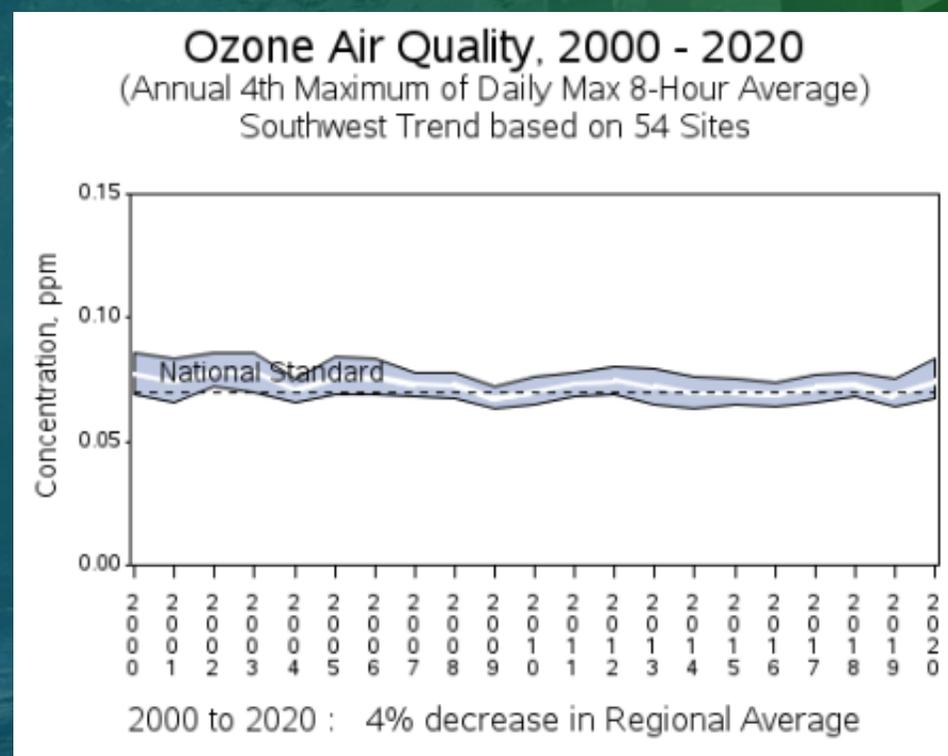
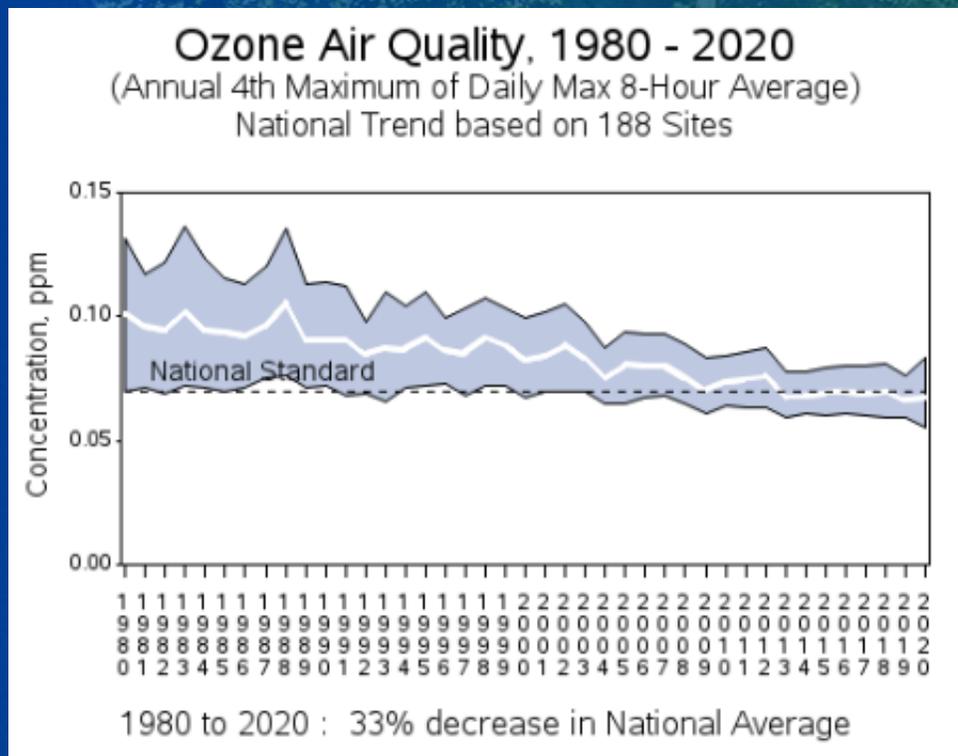


Ground Level Ozone is the air we breathe. It forms just above the earth’s surface and impacts human, animal, and plant respiration. It is considered the “Bad Ozone” It can negatively effect human health and welfare because it contains pollutants and contributes to smog. It is created by chemical reactions between nitrogen (Nox) and volatile organic compounds (VOC). It is considered to be man-made and natural.



# NAAQS Table Criteria Pollutants

## Ground Level Ozone (O<sub>3</sub>) Trends



[EPA Ground-level Ozone Pollution Resource Page](https://www.epa.gov/air-trends/ground-level-ozone-pollution)

[EPA What is Ozone?](https://www.epa.gov/air-trends/ground-level-ozone-pollution)

<https://www.epa.gov/air-trends/ground-level-ozone-pollution>

# Smog

- Smog is a combination of smoke and fog
  - Term smog was first used in 1950 in London
- In today's terms, it is used to refer to a mixture of pollutants made up of ground level ozone



<https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics>

# Ground Level Ozone Measurement

- Measured in parts per billion (ppb) and micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )
- It is measured with a tool called the *Ozone Analyzer*
  - Measures real-time ozone concentration (1-minute averages) and are reported in one-hour intervals.
- Ozone monitoring data are collected in or near 102 national parks and is conducted by the Environmental Protection Agency, states and other agencies.



# UV Absorbance Ozone Monitor





# Bexar County Air Quality Division AQD



## WHAT WE DO

The purpose of the Air Quality Division (AQD) is to safeguard public health and the environment by ensuring Bexar County maintains air quality standards. Through collaboration with the Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ), and the City of San Antonio, the Air Quality Division produces pragmatic solutions to air quality issues. The AQD ensures all residents and communities enjoy a decent standard of living by implementing interdisciplinary approaches to solve our county's air quality issues.

## Current Status

The EPA currently classifies Bexar County as being in "nonattainment", as set by the National Ambient Air Quality Standards (NAAQS). The Clean Air Act (CAA) Title 42 Chapter 85 requires these Standards. Being in nonattainment means that, presently, Bexar County is in exceedance of one of the criteria. Currently, Bexar County is in exceedance of the Ozone (O<sub>3</sub>) criteria pollutant standard. ***This means that the concentration of Ozone at ground level in Bexar County is too high***

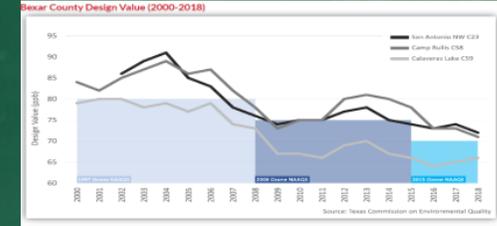
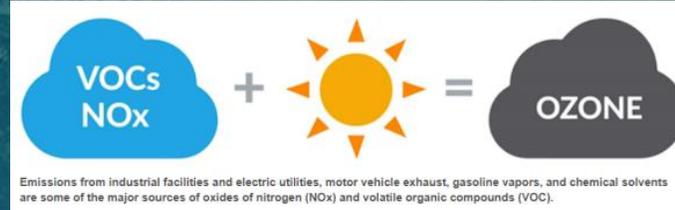
<https://www.bexar.org/3484/Air-Quality>

<https://www.sanantonio.gov/comm/News/ArtMID/24373/ArticleID/23496/EPA-Proposes-Moderate-Ozone-Nonattainment-for-San-Antonio-Area>



# San Antonio and Bexar Count

## “Moderate Nonattainment for Ozone. 13 Apr 22”



**SAN ANTONIO (April 13, 2022)** – The U.S. Environmental Protection Agency (EPA) announced a proposed action to move the “San Antonio area” Bexar County from Marginal to **Moderate Nonattainment for Ozone**. If finalized, this new designation will mean that the San Antonio area will be required to comply with new EPA air quality regulations and meet the ozone standard of 70 parts per billion (ppb) by September 24, 2024

*With the reclassification to Moderate Nonattainment, the Texas Commission on Environmental Quality (TCEQ) will have the regulatory role to enforce the EPA’s Clean Air Act regulations. These regulations are federal law that regulate air emissions from stationary and mobile sources.*

25 Mar 22 Last “Ozone Action Day” San Antonio

The Texas Commission on Environmental Quality (TCEQ) has issued an Ozone Action Day for the San Antonio area for Friday, March 25, 2022.

[San Antonio Ozone Action Day Plan \(PDF\).](#)

# Potential Ramifications of Non-Attainment

- The potential economic costs of ozone nonattainment are described under the following three categories:
  - Impact on local industry's expansion and operations
  - Transportation conformity costs
  - Additional costs of educational programs and voluntary control measures



<https://www.sanantonio.gov/CCDO/DowntownEvents/ArtMID/20498/ArticleID/10973/THE-COST-OF-NONATTAINMENT>