Start of 2022 Ozone Season & Spring 2022 Car Care Awareness

NCTCOG Public Meeting • April 11, 2022

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Ozone, a gas composed of three atoms of oxygen (O₃), occurs both in the Earth's upper atmosphere and at ground level.

**Stratospheric Ozone:** forms high in the atmosphere when intense sunlight causes oxygen molecules (O₂) to break up and re-form as ozone molecules. Popularly called “good ozone,” it shields us from the harmful effects of the sun's ultraviolet light.

**Ground-Level Ozone:** commonly referred to as “bad ozone” forms when emission sources, including, but not limited to, transportation, industrial and commercial operations, and vegetation emit oxides of nitrogen (NOₓ) and/or volatile organic compounds (VOC) that react in the presence of sunlight.
Optimum conditions for the formation of ozone include high temperatures and low winds. Sections are not to scale and are for illustrative purposes only.
Health Effects of Ground-Level Ozone

Ozone can:

- Make it more difficult to breathe deeply and vigorously.
- Increase the frequency of asthma attacks.
- Cause shortness of breath and pain.
- Cause coughing and sore or scratchy throat.
- Inflame and damage the airways.
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis.
- Cause chronic obstructive pulmonary disease (COPD).
- Make the lungs more susceptible to infection.
- Continue to damage the lungs even when the symptoms have disappeared.
Timeline and Milestones

2008 Ozone Standard
(≤75ppb)

Attainment Date:
No later than July 20, 2027

Attainment will be based on
2024-2026 Ozone Monitor Data

EPA NAAQS Classifications

Marginal
(3 years to attain)

Moderate
(6 years to attain)

Serious
(9 years to attain)

Severe
(15/17 years to attain)

Extreme
(20 years to attain)

2015 Ozone Standard
(≤70ppb)

Attainment Date:
No later than August 3, 2024

Attainment will be based on
2021-2023 Ozone Monitor Data
Exceedance Level indicates daily maximum eight-hour average ozone concentration.
Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

**8-Hour Ozone NAAQS Exceedance Trends**

Based on ≤70 ppb (As of April 6, 2022)

<table>
<thead>
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<th>Year</th>
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<th>Red (86 - 105 ppb)</th>
<th>Orange (71 - 85 ppb)</th>
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</table>

AQI Exceedance Levels

- Purple (106+ ppb)
- Red (86 - 105 ppb)
- Orange (71 - 85 ppb)

Source: TCEQ, [http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl)

ppb = parts per billion
Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

### Design Value Trends

**1997 Standard < 85 ppb (Revoked)**

**2008 Standard ≤ 75 ppb (Severe by 2027)**

**2015 Standard ≤ 70 ppb¹ (Moderate by 2024)**

As of April 6, 2022

¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).
What Can You Do?

Work from home
Carpool
Bring lunch to work or carpool to lunch
Use mass transit
Bicycle or walk
Reduce idling, including during start up
Avoid unnecessary trips
Maintain consistent driving speed
Conserve water to conserve electricity
Postpone mowing to a day that is not an Ozone Action Day
Limit use of recreational vehicles
Sample of Air Quality Initiatives
Air Quality Handbook

Bilingual

English

North Central Texas Council of Governments
Spring 2022

Air Quality Handbook

Learn about the current status of regional air quality and efforts the North Central Texas Council of Governments and its partners are doing to reduce air pollution and help the region meet Federal Air Standards.

https://nctcog.org/nctcg/media/Transportation/DocsMaps/Quality/Air/AQ2022printer_Spring.pdf

Spanish

North Central Texas Council of Governments
Primavera 2022

Manual de la Calidad del Aire

Conozca el estado actual de la calidad del aire regional y los esfuerzos que el North Central Texas Council of Governments y sus socios están haciendo para reducir la contaminación del aire y ayudar a la región cumplir con los Estándares Federales del Aire.

https://www.nctcog.org/nctcg/media/Transportation/DocsMaps/Quality/Air/AQ2022SPANISH.pdf
Air Quality Education

Air North Texas

Website: [www.airnorthtexas.org](http://www.airnorthtexas.org)

Sign up for air pollution alerts

Find air quality and ozone information

Commit to clean air actions for individuals, businesses, governments

Become a partner
Air North Texas 2022 Plans

Staff presence at regional outreach events throughout the spring, summer, and fall

Social media campaign for Air Quality Awareness Week, May 2-6

Clean Air Action Day, August 3

Air North Texas advertisements and marketing in the July – August timeframe

Air North Texas Air Pollution Alert emails

Social media campaign with regional partners featuring Arlo the Airmadillo

www.airnorthtexas.org
Highlight of Outreach Events

April 1    UNT University Day
April 2    Fix My Ride
April 3    Oak Cliff Earth Day
April 21   UNT Health Science Center Earth Day Fair
           UTDallas Earth Day Fair
April 23   City of Lewisville’s Colorpalooza
           Grapevine Earth Day
           Garland Drive Through Earth Day Celebration
August 3   Clean Air Action Day

www.airnorthtexas.org
Car Care Awareness

Campaign Goal

Advance air quality benefits for the region

Inform vehicle owners and general public about proper vehicle maintenance

Educate about check engine light importance and meaning

Build stronger community relations

Aligning nationally with the April and October Car Care Awareness months
Car Care Awareness

Campaign History

Program began as free public clinics, hosted at partnered Recognized Emissions Repair Facilities

Clinics focused on the organization’s message of air quality through education

Provided vehicle owners an opportunity to speak with qualified technicians about their check engine light and other vehicle concerns at no cost to them

Focus shifted to electronic outreach in 2020 due to COVID-19 pandemic
Car Care Awareness

Current Efforts

Partnering with nonprofit organizations and vehicle repair shops throughout the region to provide focused outreach

Providing Car Care Awareness digital toolkits and educational material to local governments and organizations upon request

Updating North Texas Car Care Awareness website with vehicle maintenance tips and online education materials for download

www.ntxcarcare.org
Please contact and let us know if you have a particular organization or automotive repair shop representative for future Car Care Awareness coordination

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