CDC NATIONAL ENVIORNMENTAL PUBLIC HEALTH TRACKING PROGRAM META DATA

BACKGROUND

The Centers for Disease Control and Prevention (CDC) is the nation's leading science-based, data-driven, service organization focused on protecting the public's health. The CDC National Environmental Public Health Tracking (National Tracking) Program is the first national effort to provide the nation with standardized data from multiple information systems, including health, environmental, and hazard data. Non-infectious disease, environmental, and socio-economic data is collected, integrated, analyzed, and disseminated from national, state, and local partners by members of the National Tracking Network. Regular surveillance activities also include data linkages. SC Tracking is one of the many members of this cooperative agreement.

DATA LIMITATIONS

Air monitoring sites are not available in all counties in South Carolina. Visit the South Carolina Air Monitoring Network to learn where air quality monitors are located. Most air pollution is created from human activities in areas where people live, work, and play. The highest concentrations of pollution are located in areas that are heavily populated (like big cities) and/or have many types of industry. South Carolina's Ambient Air Monitoring Network focuses on these highly populated areas because areas that are less populated tend to have less pollution and better air quality. The quantity and location of monitoring sites in South Carolina meet the minimum monitoring requirements set by Federal Regulations.

ACCESS CONSTRAINTS

Blank or missing data may be due to one of the following reasons: (1) data were not collected, (2) data were collected but were not provided to CDC, or (3) data were incomplete or did not meet data quality standards.

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SOUTH CAROLINA ENVIRONMENTAL PUBLIC HEALTH TRACKING

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MEASURE-SPECIFIC INFORMATION

The following data is displayed on the Air Quality Dashboard:

PM2.5 concentration data is derived from reference-grade air quality monitors that were acquired from the EPA Air Quality System. Daily average PM2.5 concentrations and supplemental data fields for all monitoring sites across the nation are acquired from EPA's Air Quality System Data Mart. The data are obtained only from monitors that are designated as Federal Reference Methods or equivalent. Monitors are typically situated in fixed locations and cannot capture the variability in air quality that occurs across entire counties and census tracts. This could lead to an overestimation or underestimation of the true air quality depending on where the monitor is located. PM2.5 concentration is displayed by date at the county-level and site location. This data is updated monthly.

Ozone concentration data is derived from reference-grade air quality monitors that were acquired from the EPA Air Quality System. Daily maximum ozone concentrations and supplemental data fields for all the monitoring sites across the U.S. are acquired from the EPA's Air Quality System Data Mart. The data are obtained only from monitors that are designated as Federal Reference Methods or equivalent. Monitors are typically situated in fixed locations and cannot capture the variability in air quality that occurs across entire counties and census tracts. The daily maximum eight-hour average National Ambient Air Quality Standard concentration for ozone is 0.070 ppm. Ozone concentrations from 2024 are displayed at the county-level where active ozone monitoring sites are located. The map indicates whether the ozone concentration exceeded the national standard by 0 days, 1-15 days, 16-30 days, or 31+ days. This data is updated annually (last updated July 30, 2025).

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SUGGESTED CITATION

Centers for Disease Control and Prevention, National Environmental Public Health Tracking Program. [Graphic name]. Available online: www.dph.sc.gov/tracking. Accessed on [date accessed].

ADDITIONAL RESOURCES

Learn more about the CDC here: Centers for Disease Control and Prevention | CDC

The CDC National Tracking Program offers an interactive Data Explorer that can be used to view environmental and public health data at the national, state, county, and census tract levels. View this interactive tool here: https://ephtracking.cdc.gov/DataExplorer/

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SOUTH CAROLINA ENVIRONMENTAL PUBLIC HEALTH TRACKING

US ENVIRONMENTAL PROTECTION AGENCY AIR QUALITY META DATA

BACKGROUND

The US Environmental Protection Agency (EPA) is a federal agency commissioned with protecting human health and the environment. As part of their mission, the EPA develops and enforces regulations that protects the nation's air, land and water with the guidance of sound scientific data. The EPA provides the public with outdoor air quality data from their Air Quality System (AQS) database published on the AirData website. This data is collected by air quality monitors located across the United States, Puerto Rico, and the U. S. Virgin Islands. The Clean Air Act is a federal law that requires state, local, and tribal air pollution control agencies to monitor the air for ambient levels of certain pollutants, which is the source for data published in the AQS database. The SC Department of Environmental Services (SC DES) Bureau of Air Quality – Ambient Air Monitoring Network operates air monitoring stations throughout South Carolina.

DATA LIMITATIONS

AQS places absolute limits on the values that control agencies submit. However, these are liberal limits, generally reflecting the theoretical limits of the measuring instrument or parameter plus or minus any reasonable uncertainty. This means, that for many parameters, negative values are acceptable.

ACCESS CONSTRAINTS

Air monitoring sites are not available in all counties in South Carolina. Visit the South Carolina Air Monitoring Network to learn where air quality monitors are located. Most air pollution is created from human activities in areas where we live, work, and play. The highest concentrations of pollution are in areas that are heavily populated (like big cities) and/or have many types of industry. South Carolina's Ambient Air Monitoring Network focuses on these highly populated areas because areas that are less populated have less

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ACCESS CONSTRAINTS

pollution and better air quality. The quantity and location of monitoring sites in South Carolina meet the minimum monitoring requirements set by Federal Regulations.

If a monitor is scheduled to collect data and does not (e.g., it is down for maintenance), the data is recorded as a null sample in the AQS database. Real time data (data collected today) is not available on the AQS.

USE CONSTRAINTS

Any user of this data must have reviewed and understood the metadata content before attempting to understand, interpret or use EPA data. This is a public dataset and is not for commercial purposes. Additional details about the AQS database should be reviewed here: 1 Introduction — About AQS. Any use of this data should contain proper data source acknowledgement to: US Environmental Protection Agency (EPA). Additional data requests should be made to the EPA.

MEASURE-SPECIFIC INFORMATION

This data is displayed on the Air Quality Dashboard:

Median Air Quality Index (AQI) from 2015-2024 are displayed annually at the county-level where active ozone monitoring sites are located. An AQI value can also be produced if a PM2.5 monitor or ozone monitor is active in that county. The AQI values are categorized by six different levels as determined by the EPA: Good (0-50), Moderate (51-100), Unhealthy for Sensitive Groups (101-150), Unhealthy (151-200), Very Unhealthy (201-300), and Hazardous (301-500).

Air Quality Index (AQI) from 2015-2024 are displayed annually at the county-level where active ozone monitoring sites are located. An AQI value can also be produced if a PM2.5 monitor, or ozone monitor is active in that county.

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MEASURE-SPECIFIC INFORMATION

Air Quality Index (AQI) by county in 2024 includes the number of days measurements were recorded from any monitoring site in the county, and the number of days the AQI value was: Good (0-50), Moderate (51-100), Unhealthy for Sensitive Groups (101-150), Unhealthy (151-200), Very Unhealthy (201-300), and Hazardous (301-500).

Daily Air Quality Index (AQI) is displayed by date at the county-level and site location. This data spans the first to last date of the prior month and is updated monthly.

Active Air Quality Alerts are displayed by date and region, which includes the Air Quality Index (AQI), alert timeframe, code designation, impacted populations, and further details. This data is updated as alerts are designated in the state. An air quality alert is typically issued when the AQI reaches the “Unhealth for Sensitive Groups” level (101-150) or higher. This indicates that the air quality is beginning to pose a health risk, particularly for vulnerable populations like children, the elderly, and people with respiratory or heart conditions. Alerts can also be issued for lower AQI levels if there are specific concerns about certain pollutants or if there are vulnerable populations in the affected area.

SUGGESTED CITATION

Environmental Protection Agency. [Graphic name]. Available online: www.dph.sc.gov/tracking. Accessed on [date accessed].

ADDITIONAL RESOURCES

South Carolina’s Ambient Air Monitoring Network: Ambient Air Monitoring Network | South Carolina Department of Environmental Services

EPA Air Quality Measures: Air Data Basic Information | US EPA

Air Quality Index Basics: AQI Basics | AirNow.gov

EPA Air Quality Alerts: Envirofacts | US EPA

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