

### State of the Air 2023

### Ozone in Colorado

Legislative Interim Committee on Ozone Air Quality September 22, 2023

### Our 24th annual report



- Puts air pollution into everyday language
  - National & local information
- Focused on particle pollution and ozone
- Grades 922 counties with monitors
- Ranks 25 metro areas for 3



# Particle pollution is a mixture of tiny solid and liquid particles, sometimes called "soot."

comes from

American

Association

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Ozone pollution is an odorless, colorless gas that forms most on hot, sunny days, sometimes called "smog."





### Where "State of the Air" Data Comes From





## No Monitors = No Data = No GradeShitors = no grades. Fewer than 1/3 of counties

- nationally have monitors
  - Not all counties with monitors have both ozone & particle monitors
- EPA & states decide which counties get monitors
- No data = no grades. Some counties with monitors have problems reporting data
- 19 of 64 Colorado counties reported ozone data



### What do "State of the Air" grades mean?

- A = 0 days with unhealthy levels over 3 years
- $\mathbf{B} = 1$  to 2 unhealthy days
- C = 3 to 6 unhealthy days
- D = 7 to 9 unhealthy days
- F = 9 or more unhealthy days



### National Ozone Trends 2008 to 2023 Population by County & Ozone



### Colorado Ozone Trends 2008 to 2023 Population by County & Ozone Grade



# SOTA 2023 Colorado Ozone







3 Colorado Cities Ranked Among "Smoggiest Cities"



## SOTA 2023 County-Level Ozone

County	Grade	Wgt.	Orange	Red	Purple	
		Avg.	Days	Days	Days	7.66.
Jefferson	F	35.2	83	15	0	Jerre
Douglas	F	23.3	55	10	0	Natio
Arapahoe	F	18.8	49	5	0	Matic
Larimer	F	16.2	44	3	0	
Boulder	F	15.0	42	2	0	
Denver	F	13.7	38	2	0	↑
Weld	F	12.8	37	1	0	<b>‡28%</b>
El Paso	F	11.8	34	1	0	<b></b> \$98%
Adams	F	10.8	31	1	0	<b><b>‡</b>46%</b>
Gilpin	F	9.8	28	1	0	184%
Clear Creek	F	5.3	16	0	0	

lefferson County Ranked 8<sup>th</sup> Worst Nationally



#### SOTA 2023 County-Level Ozone Grades Counties Had Better Ozone Grades in

County	Grade	Wgt.	Orange	Red	Purple	
		Avg.	Days	Days	Days	
Rio Blanco	С	1.7	5	0	0	
Montezuma	С	1.3	4	0	0	
Garfield	С	1.0	3	0	0	↓ 84%
Gunnison	С	1.0	3	0	0	↓ 60%
La Plata	С	1.0	3	0	0	
Mesa	С	1.0	3	0	0	↓ 57%
Archuleta	Α	0.0	0	0	0	
Delta	Α	0.0	0	0	0	



# Who is most at risk in Colorado?



Everyone knows someone at risk from air pollution.



### **Ozone Risk Considerations**



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Everyone knows someone at risk from air

### **Disproportionate Impacts of Air Pollution**

People of color are more likely to be exposed to air pollution and more likely to suffer harm to their health from air pollution than white people.



People of color were 3.7 times as likely as white people to live in a county with 3 failing grades.



#### Health Impact of Ozone Pollution Exposure Immediat Long

Chest tightness & coughing

Shortness of breath

Asthma attacks

ER visits & hospitalizations

Susceptibility to infections

#### Long-Term

- New asthma cases in
- 🧑 children
  - Airway damage & COPD
- Metabolic disorders
  - Cognitive decline
  - Preterm birth & low birth
  - weight
  - Reduced fertility

Premature death



### Lung.org/SOTA

