

# AIR QUALITY



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## INTRODUCTION

Outdoor air quality is a serious concern in Boulder County. Boulder County is designated as part of the nine-county Denver Metro area that exceeds the Environmental Protection Agency's (EPA) health standards for ozone. Impacts from increased ozone, and the pollutants that form ozone, lead to or cause poor air quality, decreased visibility, damage to crops and increased acid rain in Rocky Mountain National Park. Under the Clean Air Act, the EPA establishes air quality standards to protect public health, with special attention to the health of "sensitive" populations (children under 10 years, adults 65+, and asthmatics). The EPA also sets limits to protect public welfare, which include protection against decreased visibility and crop damage. They achieve this through national standards for pollutants, such as ozone, nitrogen oxides and particulate matter. In addition, the EPA is now taking common sense steps under the Clean Air Act to limit carbon pollution from new power plants and to improve vehicle fuel efficiency.

Regulation of greenhouse gas emissions is critical given the overwhelming scientific consensus that greenhouse gases contribute to climate change. The potential local impacts of climate change could bring higher temperatures and fewer days with precipitation, which likely will increase the frequency and severity of heat waves, episodes of poor outdoor air quality, wildfire risks and associated human health impacts. Therefore, Boulder County will face a new set of challenges, including the expanding vulnerability of our natural resources.

Boulder County Public Health is funded in part by the Colorado Department of Public Health and Environment (CDPHE) and supports improving air quality in the following ways:

- Investigating permitted businesses to determine compliance with control and reporting requirements
- Supporting enforcement actions with CDPHE
- Collecting and submitting air sample data and maintaining monitors
- Responding to outdoor air complaints
- Completing required training and certification

Boulder County Public Health also promotes air quality through voluntary programs, such as the Clean Air Challenge Contest, which encourages residents to reduce their emissions from vehicle use.

Boulder County works to improve air quality within indoor environments from pollutants such as lead, asbestos, mold and radon. Through education and outreach, Boulder County Public Health works with homeowners, tenants and property owners to protect our air, our homes and our health, using various voluntary and regulatory means.

## AIR QUALITY GOAL

Ensure clean, clear and healthy air for current and future generations

### EXTERNAL

#### TARGET 1

Meet federal outdoor air quality standards for ozone in Boulder County

### SHORT-TERM STRATEGIES

#### STRATEGY 1

Investigate and support enforcement of air pollution requirements

#### STRATEGY 2

Diagnose and investigate emission sources, and monitor air quality conditions

#### STRATEGY 3

Conduct voluntary programs to educate, empower and mobilize action to reduce ozone-forming and greenhouse gas (GHG) emissions

#### STRATEGY 4

Promote the use of sustainable and lower-emitting fuels and encourage the adoption of strategies that reduce vehicle miles traveled in state regulations and in state implementation plans

#### STRATEGY 5

Support the adoption of continuously increasing auto fuel-efficiency standards

#### STRATEGY 6

Encourage the adoption of local, state and federal regulations and policies that reduce the impacts of oil and gas resource extraction

#### STRATEGY 7

Support the adoption of continuously increasing renewable energy standards

#### STRATEGY 8

Actively participate in the development of protective air quality policies and plans

#### STRATEGY 9

Promote the use of locally sourced biofuels derived from local waste oil within the Boulder County vehicle fleet

*> Also see "Energy & Buildings" and "Transportation" sections for strategies related to greenhouse gas emissions-reduction strategies for improving outdoor air quality*

Boulder County is committed to conducting initiatives to educate and empower residents to take actions that reduce ozone-forming and greenhouse gas emissions.

## EXTERNAL

### TARGET 2

Empower residents to identify indoor air quality issues and maintain healthy indoor environments

## SHORT-TERM STRATEGIES

### STRATEGY 1

Inform, educate and empower residents and property owners to address indoor air quality issues associated with mold, moisture and asbestos

### STRATEGY 2

Conduct education and outreach to Realtors, schools and residents (particularly low-income) to increase radon awareness in Boulder County

### STRATEGY 3

Promote radon testing and educate residents about proper installation of radon reduction systems

### STRATEGY 4

Encourage radon mitigation systems in new homes through building codes and at the point of sale

### STRATEGY 5

Educate families about the need for lead testing and home lead awareness and safety

### STRATEGY 6

Work with families to reduce elevated blood lead levels in children

### STRATEGY 7

Educate residents about volatile organic compounds (VOCs) and what people can do to limit their exposure to indoor air toxins, especially through green building practices

*> For a full list of strategies and descriptions of these strategies, please see Boulder County's Public Health website: [BoulderCountyAir.org](http://BoulderCountyAir.org)*

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Boulder County is committed to radon education and outreach to increase radon awareness of Boulder County Realtors, schools and residents. The county will particularly focus education efforts in low-income populations.

BOULDER

LEADS THE WAY

COUNTY

Vehicle emissions are the second largest source of ozone-forming air pollution in Colorado's Front Range. This is why Boulder County and 36 Commuting Solutions teamed up to bolster transit ridership in Louisville, Superior and along the Diagonal Highway by increasing participation in the Regional Transportation District's (RTD) EcoPass program. EcoPass is an annual transit pass purchased by an employer as a benefit for all full-time employees. EcoPass provides unlimited rides on all Local, Express and Regional bus and light rail service operated by RTD. An employee with an EcoPass is nearly nine times more likely to have commuted by bus in the last year than an employee without an EcoPass, according to a 2005 Boulder Valley Employee Survey conducted by the City of Boulder. The program aims to boost transit ridership in Boulder County while relieving traffic congestion and reducing greenhouse gas emissions. "Since the program launched in January 2008, more than 7,000 employees and residents have acquired an EcoPass," said Boulder County Alternative Transportation Coordinator, Scott McCarey. "EcoPass has economic as well as environmental benefits," said Boulder County Transportation Director George Gerstle. "In a tough economy, a great way to save money is to reduce commuting costs. By riding the bus, people save on fuel and vehicle maintenance costs all while improving the environment." Each year, this program saves approximately 455,000 lbs of CO<sub>2</sub>, making it an effective way to reduce our countywide greenhouse gas emissions.

## Sustainability Challenge

### **RADON**

Radon is the second leading cause of lung cancer, after smoking. Boulder County has high levels of naturally occurring radon in our soils. Testing for and properly reducing radon levels in homes is easy and affordable. Boulder County Public Health has delivered nearly 300 radon test kits in partnership with EnergySmart and evaluates home radon reductions systems each year.

BOULDER

LEADS THE WAY

COUNTY

Boulder County Public Health has participated in several rule-making proceedings before the Air Quality Control Commission supporting a coalition of local governments. With the City and County of Denver, City of Fort Collins, City of Boulder, and many local government coalition members, we have had several successes, including:

- Colorado adopted a regulation controlling mercury emissions from coal-fired power plants at least five years before federal rules go into effect
- Colorado now has a regulation in place that will phase out the use of coal-fired power plants along the Front Range, reducing smog and improving visibility in the mountains
- Colorado has regulations controlling emissions from oil and gas operations to reduce harmful smog, but these regulations need to be strengthened.

Boulder County continues to support emission controls to reduce the air quality impacts of oil and gas development through participation in federal and state rulemaking and the proposal of local controls. Boulder County is working with our partners at the University of Colorado to map out an air quality monitoring program for the county, and with the Regional Air Quality Commission to bring in additional monitoring resources, such as an infra-red camera, to view potentially harmful air pollutants from oil and gas operation sites.

## Sustainability Challenge

### VEHICLE EMISSIONS

Vehicle emissions are the second largest source of ozone-forming air pollution.

Since the summer of 2004, 1,200 people have participated in the Boulder County Clean Air Challenge Contest, protecting air quality by using public transportation and bikeways to get around. Collectively, they have offset nearly 680,000 vehicle miles, 30,000 gallons of gasoline, 2,900 pounds of ozone-forming pollutants, and 340 tons of greenhouse gas emissions. The contest provides prizes and recognition for these great efforts. Join the fun! Leave your car at home and win at [BoulderCountyAir.org](http://BoulderCountyAir.org)

## Sustainability Challenge

### LEAD

Lead poisoning continues to be the number one preventable environmental health threat to children under the age of six. Lead commonly is found in paint or soil. It can get into a child's system when particles are inhaled or eaten on a regular basis. High levels of lead may cause delayed brain development, shortened attention span, and hearing and learning problems. In Boulder County, 75% of children tested had some detectable amounts of lead in their blood and 4% had blood-elevated lead levels. Ask your doctor about a blood-lead test for your child. Boulder County Public Health has analyzed state lead tests and conducts home investigations when testing indicates a problem.

## POLICY PRIORITIES

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*Support State Regulation and Other Policy Means to Protect Air Quality*

Boulder County, as part of the North Front Range Denver Metropolitan Nonattainment Area, currently exceeds national air quality standards for ozone. Poor air quality has significant public health and environmental impacts, from increasing doctor visits and hospital admissions to compromising the unique value of our parks and open space lands through loss of visibility and impacts to wildlife. Boulder County supports state legislative, regulatory and other efforts to ensure public and environmental health by reducing the emissions of harmful pollutants.

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*Support Authority Funding of The Environmental Protection Agency to Enforce the Clean Air Act*

The Clean Air Act is the law that defines the Environmental Protection Agency's (EPA) responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer, including important regulatory powers over greenhouse gas emissions and air pollution. Boulder County supports adequately funding and empowering the EPA to sufficiently protect public health and the common

good by enforcing the Clean Air Act to improve and maintain high standards of air quality.

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*Support Legislation to Require Radon Mitigation Systems in New Homes, Residential Construction and Existing Homes When Resold*

Including radon mitigation requirements in building codes and when homes are resold would help decrease potential health risks associated with residential exposures to radon, which is the second leading cause of lung cancer in the United States.

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*Support State and Federal Legislation and Other Policy Approaches to Address the Air Quality Impacts Associated with Oil and Gas Operations*

Oil and gas operations can cause air toxin and volatile organic compound emissions close to population centers. Boulder County supports legislative efforts to reduce the air quality impacts of oil and gas exploration and development.

## TAKE ACTION

Our cars, lawn and garden equipment, and other products (e.g., paints and cleaners) are all culprits in producing ozone pollution. The fewer ozone-causing emissions produced on hot, still summer days, the better. You can do the following to help take care of our summer air.

- Fuel your vehicles in the evening so fume vapors can't "cook" into ozone.
- Keep your car tuned—routine maintenance helps your car run efficiently.
- Keep tires inflated—it reduces pollution and saves you money.
- Avoid idling—restarting your engine uses fuel equal to six seconds of idling.

- Use an electric-powered lawn mower; mow in the evening, if you're using a gasoline powered mower.
- If you are purchasing a car, choose one that is fuel efficient.
- Choose low greenhouse gas-emitting travel options rather than driving alone, for example walk, bike, telecommute or ride the bus—leave the car at home.

Learn more at [OzoneAware.org](https://www.OzoneAware.org), and take the Clean Air Challenge at [BoulderCountyAir.org](https://www.BoulderCountyAir.org)