Colorado

Air Quality Control Commission

Report to the Public 2008-2009

Colorado Department of Public Health and Environment

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Colorado Department
of Public Health
and Environment

Message from the Commission . . .

Colorado Department of Public Health and Environment

Air Quality Overview

Colorado's air quality management program relies upon several organizations within the state and the country, as well as its citizens, to achieve and maintain good air quality. The commission works closely with and relies upon the Air Pollution Control Division to adopt and implement an air quality management program in the state. Also closely involved in the process of adopting and implementing the state's air quality management program are the U.S. Environmental Protection Agency (EPA) and federal land managers, the Governor-designated air quality planning agencies, city and county health departments, the regulated community and the citizens of our great state. It takes all of these groups working together to produce an effective air quality management program to protect public health and the environment.

Colorado, like many states, has experienced numerous issues with air quality, but has been successful in providing good public health protection and improving air quality. Since the time that air pollution monitoring began in the 1970s, we have improved poor air quality in areas of the state where violations of the national standards were recorded and have preserved those improvements over time.

In 2002, we accomplished a milestone by achieving compliance with all federal air quality standards and having the EPA designate all areas of Colorado in compliance. Since that time, areas of the Front Range have violated the national standard for ozone, specifically in the Denver metropolitan, Greeley and Fort Collins areas. During this time, the EPA has made the national standard for ozone more stringent, making the challenge to maintain compliance that much greater. We will need the combined efforts of state and local governments, business and industry, as well as the citizens of the state to meet the challenge of reducing ozone pollution.

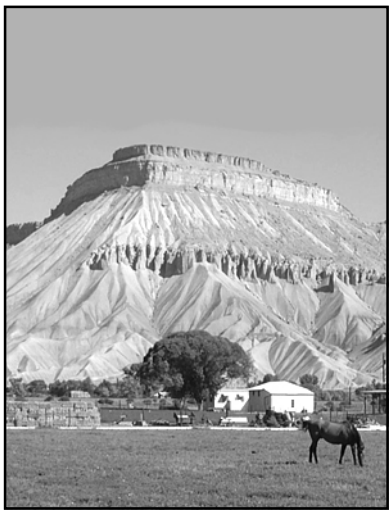
In addition to ozone, we are working to address air pollution from a variety of sources to ensure we maintain healthy air quality and continue to protect the natural resources in all areas of the state. The Air Quality Control Commission and Air Pollution Control Division are working to address air pollutant emissions from oil and natural gas development, emissions from cars and light duty trucks, visibility in our scenic places and deposition of nitrogen bearing compounds in Rocky Mountain National Park.

Colorado is currently undergoing a significant increase in oil and gas development in many areas of the state. While Colorado has historically been an area of oil and gas development, the recent increase has presented some air quality challenges. Emissions from oil and gas sources have been significantly reduced along the Front Range as well as other areas of the state, and additional emission reduction controls are being evaluated. Reducing emissions from oil and gas exploration and production will help reduce ozone pollution and improve visibility, as well as reduce odors and exposure to air toxics.

Air pollutant emissions from cars and light-duty trucks as well as heavy-duty vehicles collectively contribute to adverse air quality in Colorado. High emitting vehicles or vehicles with engine system malfunctions contribute disproportionately large amounts of pollution. To combat these high emissions, we have adopted and implemented a vehicle emissions testing program in the Front Range and are exploring ways to more efficiently identify and require repairs for high emitting vehicles. Continuing to reduce vehicle emissions will help to reduce ozone concentrations as well as carbon monoxide and oxides of nitrogen air pollution.

We are also working to develop and adopt plans to reduce air pollutant emissions that obscure visibility in our National Parks and Wilderness Areas and have adopted several measures to improve visibility under the requirements of the federal regional haze program. Emission reductions from major sources of sulfur dioxide and oxides of nitrogen will be considered next year to help achieve this goal. Impaired visibility is a regional air quality issue that will require emission reductions from numerous sources across broad regions of the country. We are working within the state as well as with other western states to reach this objective.

In Rocky Mountain National Park, the Air Pollution Control Division is working with EPA and the National Park Service to address nitrogen deposition in the park from oxides of nitrogen and ammonia. Oxides of nitrogen are typically generated from the burning of fuel such as coal, oil, gasoline and natural gas. Ammonia is typically produced from operations such as livestock management and fertilizer application to crops. Ammonia is also produced from the urban application of fertilizer on lawns and gardens and from water treatment facilities. Excess nitrogen deposition in the park works as a fertilizer and creates adverse impacts to the park's natural ecosystems. The Air Pollution Control Division is working to identify strategies to significantly reduce nitrogen deposition by working with the agricultural community to reduce ammonia. The Air Pollution Control Division is also working to reduce nitrogen deposition in the park by developing emission control strategies for oxides of nitrogen (NOx) from stationary sources in the Front Range and throughout the state for the commission to consider in the future. These NOx emission control strategies will be relied upon for numerous air quality improvement programs and are being developed in a coordinated effort.



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Douglas A. Lempke, Administrator
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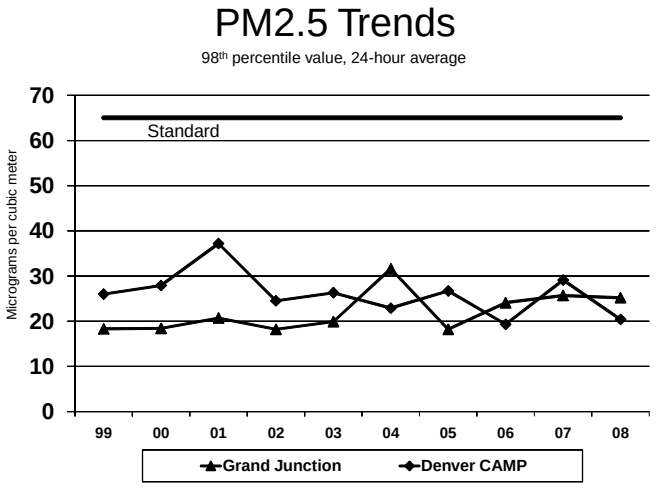
The major pollutants . . .

There are many types of air pollution, from blowing dust to human-caused chemical emissions. The U.S. Environmental Protection Agency has developed standards for six common air pollutants that it calls "criteria pollutants." Health and environmental criteria are used to establish the standards for these pollutants. The standards relate to maximum allowable levels of pollutants in the air.

The six criteria pollutants are particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead.

In addition to criteria pollutants, another class of regulated air pollutants is "toxic air pollutants." Toxic air pollutants, also known as hazardous air pollutants, are those that are known or suspected to cause cancer or other serious health or environmental effects. Examples of toxic air pollutants include benzene, which is found in gasoline; perchloroethylene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds.



Greenhouse gases, such as carbon dioxide and methane, are pollutants that are believed to contribute to changes in our climatic environment. Climate change has been a growing concern in recent years, and while most greenhouse gases are currently not regulated, Colorado and the nation are developing methods to reduce these gases and their impacts.

Monitoring the Pollutants

The Colorado Air Pollution Control Division maintains a statewide monitoring network for all criteria pollutants as required by the federal Clean Air Act and at times conducts special studies of toxic air pollutants. Monitors are placed in areas where emissions sources and modeling suggest that air quality would be most impacted.

The following information provides more detail about the criteria pollutants of concern in Colorado. For more details on all the criteria pollutants and Colorado air monitoring, see www.colorado.gov/airquality/.

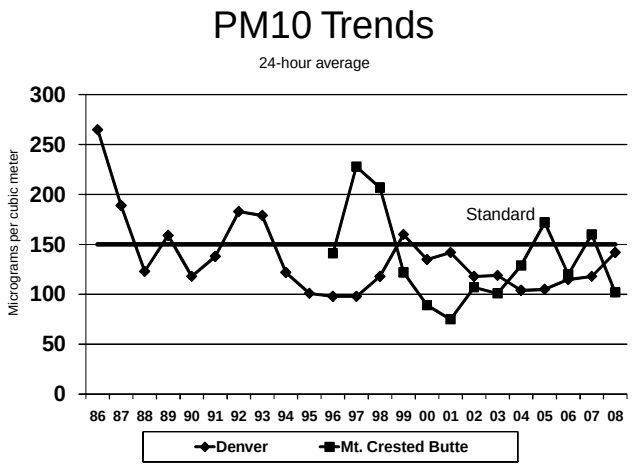
Particulate Matter

Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Coarse particles are those with a diameter greater than 2.5 microns up

to 10 microns. Fine particles are 2.5 microns and smaller (PM2.5). A micron is 1 millionth of a meter. A human hair is about 60-70 microns in diameter.

PM10

PM10 consists of solid and semi-solid material up to 10 microns in size suspended in the atmosphere. More than 70 percent of PM10 is created from windblown dust and soil from roads, fields and construction sites. A smaller percentage of PM10 comes from automobile and diesel engine exhaust, soot from wood fires, and sulfates and nitrates from combustion sources such as industrial boilers.



PM2.5

PM2.5 particles are a subset of PM10 and include those particles up to 2.5 microns in size. PM2.5 can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air.

Health and Environmental Effects

Particulate matter can enter the lungs. Once inhaled, PM2.5 particles can affect the heart and lungs and cause serious health effects, including respiratory problems and cancer. The environmental effects range from visibility degradation to climate change and vegetation damage.

Impacts in Colorado

All of Colorado meets the federal standards for both PM10 and PM2.5 pollution. However, particle pollution at times can cause temporary, localized air quality impacts due to blowing dust or wildfires. The components of particle pollution also contribute to regional haze.

Ground-level ozone

Ozone pollution is formed through complex photochemistry involving volatile organic compounds (VOCs) and nitrogen oxides (NOx) in the presence of sunlight. Ozone pollution is not typically emitted directly from an individual source. Emissions from motor vehicles, industry and even vegetation contribute to ozone formation.

Ozone is colorless and odorless at ambient concentrations. In the upper stratosphere, ozone helps protect the earth from ultraviolet radiation.

The highest ground-level ozone concentrations occur in the summer when hot, still days cause reactive pollutants to form ozone.

The major pollutants . . .

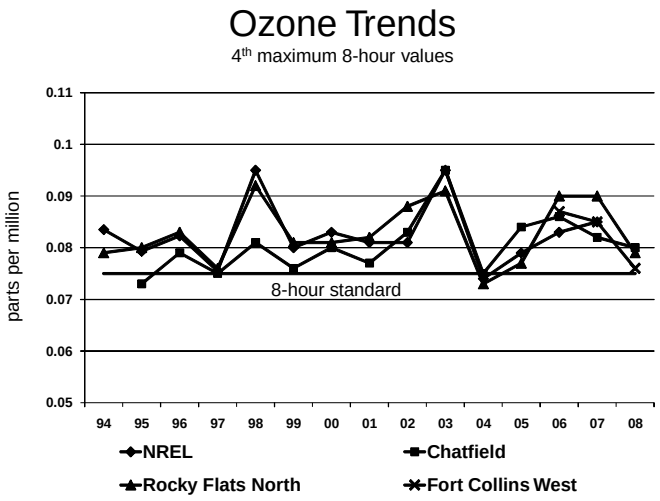
Health and Environmental Effects

Ozone can cause breathing difficulties and respiratory infections in the elderly, the young and those with pre-existing ailments such as asthma. Even healthy people who exercise or work outdoors can experience respiratory effects from ozone. Ground-level ozone can have detrimental effects on plants and ecosystems.

Impacts in Colorado

The Denver-metropolitan and North Front Range areas became "nonattainment" for the federal ozone standard on November 20, 2007. The nonattainment designation is a result of violations of the federal 8-hour ozone standard. The standard is based on a three-year average of monitoring data. The rest of Colorado attains the ozone standard.

For more information on ozone issues in Colorado see the major initiatives section on page 12 of this report.



Nitrogen Oxides

Nitrogen oxides (NOx) is the generic term for a group of highly reactive gases that contain nitrogen and oxygen in varying amounts. NOx play a major role in the formation of ozone, particulate matter, haze and acid rain.

Ninety-five percent of NOx is made up of Nitrogen dioxide (NO2) and nitric oxide (NO). NO2 is a reddish brown, highly reactive gas that is formed in the ambient air through the oxidation of NO.

Reductions in emissions of NOx in some cases can lead to an increase in ozone due to the complex chemistry of ozone formation. In the immediate vicinity of the NOx emissions, NO combines with ozone to become NO2. However, the NO2 can lead to ozone formation further downwind.

The major sources of man-made NOx emissions are high-temperature combustion processes such as those in automobiles and power plants. Home heaters and gas stoves can also produce substantial amounts of NO2 in indoor settings.

Health and Environmental Effects

NOx reacts in the air to form ground-level ozone and fine particle pollution, which are associated with adverse health effects.

NOx can increase respiratory problems, cause mild symptomatic effects in

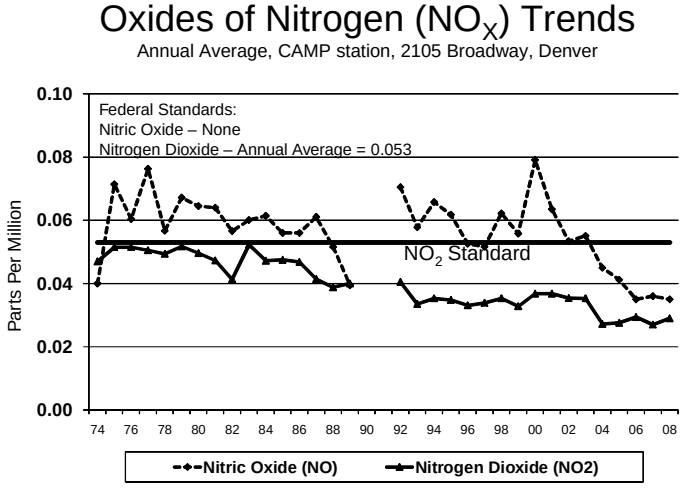
asthmatic individuals and increase susceptibility to respiratory infections.

NOx contributes to a wide range of environmental effects directly and when combined with other precursors in acid rain and ozone. Increased nitrogen in terrestrial and wetland systems can lead to changes in plant species composition and diversity. Nitrogen in lakes and streams can lead to eutrophication, which is a condition that promotes excessive algae growth and leads to a severe depletion of dissolved oxygen and increased levels of toxins harmful to aquatic life. NOx can also contribute to visibility impairment.

Impacts in Colorado

NOx is monitored at two sites in Colorado: downtown Denver's CAMP station and in Welby just north of Denver. The sites show NOx values that are well below the national ambient air quality standards. Monitoring results show no significant trend in NOx since monitoring began in 1974, though NO2 shows a downward trend in Colorado.

Nationally, average NO2 concentrations are well below the NAAQS and currently are at the lowest levels recorded in the past 20 years. The Air Pollution Control Division is analyzing whether NOx reductions are necessary to control ozone, regional haze, and nitrogen deposition at Rock Mountain National Park.



Lead

Lead is a metal found naturally in the environment as well as in manufactured products. The primary historical sources of lead air emissions have been from motor vehicles burning leaded gasoline, and industrial sources. Since the phase-out of leaded gasoline beginning in the 1970s, today's primary sources of lead air emissions are industrial metal processing and lead smelting.

In 2008 the EPA revised the national standard for lead from 1.5 micrograms per cubic meter to .15 micrograms per cubic meter.

Health and Environmental Effects

Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Lead exposure leads to neurological effects in children and cardiovascular effects such as high blood pressure in adults. Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems and learning deficits.

The major pollutants . . .

Ecosystems near point sources of lead demonstrate a wide range of adverse effects including losses in biodiversity, changes in community composition, decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Impacts in Colorado

Since the phase-out of leaded gasoline, lead levels monitored in Denver have decreased by more than 95 percent since 1979. Lead at the Denver monitoring site is now at or near the minimum levels of detection. A lead monitor will be added in Colorado Springs to meet new federal lead monitoring requirements. In addition, a lead monitor will be added at Centennial Airport in Arapahoe County. Small engine aircraft use leaded fuel and the air traffic at the airport is great enough to require analysis for compliance with the new standard.

Toxics

Toxic air pollutants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects. Examples include benzene, which is found in gasoline; perchlorethlyene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds.

While no ambient air quality standards have been set for air toxics, EPA has published a list of 188 air toxics and has developed standards for specific industries. These standards are called the National Emission Standards for Hazardous Air Pollutants, or NESHAPS. NESHAPS are commonly called maximum achievable control technology (MACT) standards. MACT standards are technology-based standards for specific industries and are designed to reduce HAP emissions to a maximum achievable degree, taking into consideration the cost of reductions and other factors.

After the EPA adopts a MACT standard at the federal level, the same standard is proposed for adoption at the state level by the Air Quality Control Commission on a semi-annual basis.

Air toxics are also reduced through automobile inspection and maintenance, ozone reduction measures to reduce volatile organic chemicals, chlorofluorocarbon reduction and phase-out, the Mercury-free Colorado Campaign (www.cdphe.state.co.us/HM/mercury/) a diesel school bus emissions control retrofit program (www.cdphe.state.co.us/ap/cleandiesel.html), and pollution prevention in industries and communities statewide.

Health and Environmental Effects

People that experience prolonged exposure to toxic air pollutants at significant concentrations may have an increased chance of experiencing serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive, developmental, respiratory and other health problems. Some toxic air pollutants such as mercury can deposit onto soils or surface waters, where they are taken up by plants and ingested by animals and are eventually magnified up through the food chain. Like humans, animals may experience health problems if exposed to sufficient quantities of air toxics over time.

Impacts in Colorado

In general, studies have shown that air toxics levels are similar in urbanized areas across the nation. People are exposed to air toxics primarily through transportation, as motorists or passengers. Several air monitoring studies of toxics in Colorado have been done, including in Denver, Pueblo, Grand Junction and Garfield County. In general, the studies have found that most air toxics levels are low with a few localized exceptions related to specific sources. Urban areas where motor vehicles and industries are concentrated have the most impacts in Colorado. Rural areas where oil and gas development occurs may also be impacted.

Greenhouse Gases

Greenhouse gases are necessary to life because they keep the planet's surface warmer than it otherwise would be. However, as these gases increase in the atmosphere the Earth's temperature is also increasing. Three greenhouse gases produced by natural processes and human activity - carbon dioxide, methane and nitrous oxide - make up less than one percent of Earth's atmosphere, but they exert powerful control over global temperatures. Greenhouse gases absorb the sun's heat as it radiates back from the Earth's surface toward space, and trap that heat in the atmosphere.

In the U.S., energy-related activities account for three-quarters of our human-generated greenhouse gas emissions, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third come from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, other land use, and waste management are also important sources of greenhouse gas emissions in the United States.

Colorado's greenhouse gas emissions in 2005 were 35 percent higher than in 1990 and, under a business-as-usual scenario, are projected to grow to 81 percent above 1990 levels by the year 2020.

The major pollutants . . .

Health and Environmental Effects

Elevated levels of greenhouse gases are widely considered to produce climatic changes such as altered rainfall patterns, reduced snow and ice cover, and rising sea levels. Eleven of the past 12 years were the warmest on record worldwide since 1850, when record-keeping began. Glaciers, snowpack and sea ice are shrinking, oceans are rising, and droughts are longer and more intense in some areas. Weather extremes, such as heavy downpours that cause flooding, intense hurricanes and wildfire, are more frequent.

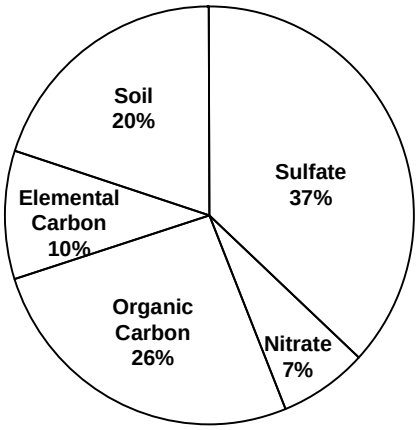
Impacts in Colorado

A number of climatic changes have been observed in Colorado in recent decades, including:

- Shorter and warmer winters, with a thinner snowpack and earlier spring runoff.
- Less precipitation overall, and more falling as rain than snow.
- Longer periods of drought.
- More wildfires, burning twice as many acres each year than before 1980.

Scientists project that future impacts in Colorado will be more extreme than what we have experienced. These projected impacts are detailed in the Colorado Climate Action Plan.

Makeup of fine particles in haze in rural Colorado Class I areas



Source: IMPROVE Report

Regional Haze

Regional haze is a term for the veil of white or brown haze that obstructs vistas in many parts of the country, including areas of Colorado. The haze is caused by fine particles including sulfates, carbon, soils and nitrates. These particles are produced by emissions from power plants, industrial sources, motor vehicles, fires, and windblown dust and dirt. The particles are carried by the wind, sometimes for hundreds or even thousands of miles in the case of transcontinental transport of pollutants.

Health and Environmental Effects

In our nation's scenic areas, the visual range has been reduced substantially by air pollution. In the West, visual range has decreased from an average of 140 miles to 35-90 miles on poor visibility days, according to the EPA.

Some of the pollutants which form haze have also been linked to serious health problems and environmental damage. Exposure to very small particles in the air has been linked with respiratory illness, decreased lung function, and even premature death. In addition, particles such as nitrates and sulfates contribute to acid rain formation which makes lakes, rivers, and streams unsuitable for many fish, and erodes buildings, historical monuments, and paint on cars.

Impacts in Colorado

The federal Regional Haze rule focuses on National Parks and Wilderness (Class I) Areas. Colorado has 12 Class I areas designated for regional haze reduction. Haze reduction in these areas will have the complementary effect of improving visibility throughout Colorado.

The Colorado Air Quality Control Commission (AQCC) adopted significant portions of a Regional Haze State Implementation Plan in 2007 and 2008. The process required a detailed analysis of regional haze and its sources, and the establishment of emissions controls for major industrial sources of haze. The AQCC and Air Pollution Control Division are continuing to refine this plan with additional modeling and analysis for the related pollutants of ozone and nitrogen oxides.

The state is working with stakeholders to develop progress goals for implementing haze emission controls at major industrial sources. Emission reduction programs for, ozone and nitrogen deposition at Rocky Mountain National Park are being coordinated with emission reduction efforts for regional haze.

For more detailed information on-line see:

- Air quality home page: www.cdphe.state.co.us/ap/
- Criteria pollutants in general: www.colorado.gov/airquality/brochure.aspx
- Ozone: www.cdphe.state.co.us/ap/ozoneindex.html
- NOx: www.cdphe.state.co.us/ap/NOxForum.html
- Regional haze: www.cdphe.state.co.us/ap/regionalhaze.html
- Toxics: www.cdphe.state.co.us/ap/toxics/

Major initiatives . . .

Ozone reduction efforts

An Ozone Action Plan was completed and adopted by the Air Quality Control Commission in December 2008 to bring Colorado into attainment with the 1997 federal ozone standard. The Denver metro area and north Front Range violated that standard in 2007, which led to a "nonattainment" designation from the U.S. Environmental Protection Agency. Emission reductions shown in the Ozone Action Plan are projected to bring the area back into attainment by 2010.

The Ozone Action Plan also addresses a directive by Governor Bill Ritter to not only meet the 1997 ozone standard, but to reduce ozone further to meet a more stringent standard issued by the U.S. EPA in 2008.

The Ozone Action Plan includes the following ozone control strategies:

- Increase VOC control requirements for oil and gas production condensate tanks to eliminate 90 percent of emissions by 2011
- Require some small sources of VOC emissions that were previously exempt from regulations to meet permitting requirements and to install Reasonably Available Control Technology (RACT)
- Expand to statewide the emission limits that apply in the nonattainment area for reciprocating internal combustion engines
- Require low-bleed control devices on all new and existing pneumatic valves in oil and gas operations by 2009
- Expand the motor vehicle inspection and maintenance program from Denver to the North Front Range
- Make the emission "cutpoints" in the motor vehicle inspection and maintenance program more stringent
- Require a program to detect and repair high emitting vehicles utilizing roadside testing
- Tighten up "collector plate" requirements that limit emissions testing on vehicles older than 25 years.

New Ozone Standard

In March 2008 the EPA established a new, more stringent standard for ozone after a review of the most recent health effects information. The new 8-hour standard was tightened from 80 parts per billion to 75 parts per billion averaged over an eight-hour period.

Colorado made recommendations in March 2009 to the EPA that the current Denver Metro/North Front Range nonattainment region be designated as nonattainment for the 2008 ozone standard. The recommendation was made after an analysis of monitoring and other data. The analysis showed that regions in the state outside of Denver and the North Front Range will meet the 2008 standard.

Meeting the 2008 Ozone Standard

The 2008 Ozone Action Plan contains measures that will reduce ozone concentrations toward the level of the newly-issued standard. Any additional measures needed to meet the new standard will be included in a new ozone plan due to the EPA by 2013.

The Air Pollution Control Division has installed six new ozone monitors since 2007 and has begun a process to evaluate additional measures for ozone reduction.

Managing oil and gas development

An energy development boom began in Colorado in 2004 as rising energy prices created greater incentives to develop oil and gas resources. Oil and gas development now accounts for about 50 percent of permitting activities of the Air Pollution Control Division (APCD), and the industry is the largest source category of human-caused ozone-forming emissions in the state.

While energy prices and drilling of new wells declined in 2008, the number of active wells was at an all-time high of more than 39,000 in early 2009, according to figures from the Colorado Oil and Gas Conservation Commission (COGCC).

The Colorado Air Quality Control Commission took action beginning in 2004 to control oil and gas emissions on the Front Range. Controls were required on condensate tanks that collect liquid hydrocarbons, on glycol dehydrators that separate water from gas, and on large engines that compress natural gas and power equipment. Oil and gas controls were tightened along the Front Range in 2006 and new controls were mandated statewide when it became apparent that more action was needed to avoid a violation of the federal ozone standard.

Despite the additional controls, the ozone standard was violated in 2007, which led to an ozone action plan in 2008 that increased emission controls further. See the accompanying section on ozone initiatives for more information on emission control requirements.

In addition to the 2008 Ozone Action Plan, the Colorado Legislature passed House Bill 1341 in 2008 that requires the COGCC to consider impacts to the environment and wildlife in its regulatory process. The legislation gives the Colorado Department of Public Health and Environment a consultative role in the issuance of drilling permits, and specifically requires stricter VOC control on tanks, dehydrators and production pits located near residences and affected

buildings.

To address the increased air emissions permitting and enforcement requirements brought on by energy development, CDPHE created an oil and gas team in 2006 with staff dedicated to air quality issues associated with the oil and gas industry.

For more information on the APCD's Oil and Gas Program see: www.cdphe.state.co.us/ap/oilgas.html

NOx evaluation

Oxides of nitrogen (NOx) emissions are being evaluated under a planning effort begun in 2009 that addresses three air quality issues in Colorado: ozone, regional haze, and nitrogen deposition at Rocky Mountain National Park. NOx planning is being coordinated to achieve complementary benefits for each of these three air quality issues.

Significant reductions in NOx in Colorado are expected in coming years, but more reductions may be needed to meet air quality goals. Some of these expected NOx reductions are due to emissions controls at power plants and other large industries, the planned closure of two coal-fired power plants, emissions controls on large industrial engines, phase-in of federal motor vehicle standards through fleet turnover, tighter motor vehicle emission controls and expansion of the vehicle emissions inspection program to the North Front Range.

Ozone

NOx is a primary precursor pollutant to the formation of ozone. The APCD will be conducting modeling to determine the best emission control strategies to reduce NOx. As the EPA works to make the ozone standard more stringent, NOx will become a more important pollutant.

Regional Haze

NOx is a primary precursor pollutant to the formation of secondary particulate matter. The APCD is conducting modeling required under the federal regional haze rule to help determine what sources contribute to regional haze in Colorado's wilderness areas and national parks. These efforts will help identify how sources of regional haze can best reduce their contributions of NOx and other haze-forming pollutants in order to meet progress goals to improve visibility.

Rocky Mountain National Park

NOx is also a primary source of nitrogen being deposited in Rocky Mountain National Park. Nitrogen deposition in the park has been the subject of study

for several years among a group of federal and state agencies. NOx leads to nitrogen deposition and increased acidity in the soil and water at the park, which changes the ecosystem and threatens plant and animal species. If planned NOx reductions aren't enough to meet the goals of reduced nitrogen deposition at the park, then a contingency plan will be implemented to identify additional nitrogen controls for sources that impact the park.

The contingency plan will be presented to the Air Quality Control Commission in late 2009. The plan development process includes work groups that are evaluating urban and agricultural sources of ammonia and potential emission reduction strategies.

The effort to reduce nitrogen deposition in the park is an interagency effort of the CDPHE, the National Park Service and the EPA.

Diesel engine retrofits

Diesel school buses in Colorado are being retrofitted with emissions control equipment that reduces children's exposure to toxics. Diesel emissions from crankcases and tailpipes pollute the outside air as well as the interiors of school buses. Retrofits have reduced diesel particulate pollution by as much as 56 percent inside of school buses, according to a study by the University of Colorado, and have resulted in significant reductions of air toxics, carbon monoxide, hydrocarbons and fuel use.

The Colorado Clean Diesel Program began as a pilot project at Pueblo County school districts in 2006, where 120 school buses were retrofitted with emissions reduction equipment. Federal funding for diesel school bus retrofits has been made available through the Diesel Emissions Reduction Act of 2005. Additional funding has been made available through the American Recovery and Reconstruction Act (ARRA) and Supplemental Environmental Projects.

More than 1,000 school buses in the Denver-metropolitan area have been retrofitted during the past several years through Regional Air Quality Council (RAQC) programs. The RAQC assisted the APCD with the Pueblo pilot and other introductory efforts. With federal funding the APCD and the RAQC intend this year to purchase and share a comprehensive database designed to track all aspects of retrofitting thousands of buses and other diesel engine vehicles.

In 2009, 130 more buses will be retrofitted in Garfield and Rio Blanco Counties, and funding is available to retrofit about 600 more buses in Weld, El Paso and Mesa counties. More school districts have requested information on retrofits, and the Clean Diesel Program will expand to as many districts as possible. The retrofit services are provided to school districts based on funding

availability, local air quality issues and vehicle age and configuration.

The program goal is to expand to include municipal fleets, over-the-road trucks, and non-road vehicles and equipment that use diesel fuel. Recently-awarded ARRA funds will pay for the retrofitting of 180 over-the-road trucks this year.

The retrofit emission control technologies include diesel oxidation catalysts which replace the muffler, engine pre-heaters to reduce idling time and fuel consumption, and closed crankcase filtration that removes 95 percent of the particulate emissions from under the hood.

The control technologies are installed by contractors. Follow-up service is provided by APCD diesel experts to ensure that the emissions control equipment is functioning properly.

For more information see: www.cdphe.state.co.us/ap/cleandiesel.html

Motor vehicle high emitter program

Finding and repairing high-polluting vehicles in the Denver-metropolitan area using roadside testing equipment is a legislatively mandated component of the Colorado Automobile Inspection and Readjustment (AIR) program. A high emitter pilot program began in the Denver area in January 2008.

How the Program Works

Remote sensing units unobtrusively measure exhaust emissions from motor vehicles as they are driven past. Emissions are detected with an infrared and ultraviolet light beam. Speed and acceleration are recorded by sensors. A video camera records license plate information.

If the roadside test identifies the vehicle as a potential high emitter, a notification letter with instructions is sent to the owner. The owner is required by law to present the vehicle for a free emissions compliance inspection at a state Emissions Technical Center. If repairs are needed owners may be eligible for financial assistance. After repairs are completed the vehicle must pass a final emissions inspection.

For more information see: www.cdphe.state.co.us/ap/highpolluter.html.

Climate change

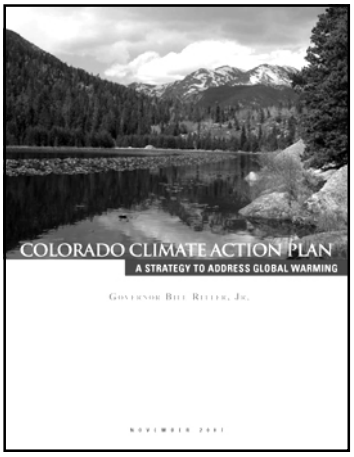
The Colorado Climate Action Plan, released in November 2007, is Colorado's roadmap for reducing greenhouse gas emissions. The goal is a 20 percent reduction from 2005 levels by 2020. The plan will expand as additional initiatives are evaluated and new technologies unfold.

The Colorado Department of Public Health and Environment will play the following roles in implementing the Colorado Climate Action Plan:

Report state government's greenhouse emissions and encourage others to do the same

Colorado has joined The Climate Registry (TCR), a voluntary greenhouse gas emissions reporting system, which provides a mechanism for businesses, state agencies, local governments, and others to measure and report greenhouse gas emissions.

The State of Colorado, through a 2007 executive order, has established goals for a 20 percent reduction in greenhouse gas emissions and energy use by state buildings and a 25 percent reduction in petroleum use by the state's vehicle fleet. These reductions from 2007 levels would be met by 2012.



The Air Pollution Control Division is also evaluating a new proposed federal rule that would require mandatory reporting of greenhouse gas emissions by large sources in the United States. EPA's purpose for the rule is to collect accurate emissions data to inform future policy decisions.

Recognize agriculture as part of the solution

The department will establish a system under which farmers and ranchers could get credits - and sell those credits - for adopting agricultural practices that reduce greenhouse gas emissions of nitrous oxide and methane and increase the amount of carbon dioxide stored in soils.

Address emissions from mobile sources

The Air Pollution Control Division will continue to assess the Clean Car tailpipe emissions standards that California has adopted for new passenger cars and light duty trucks. Staff are analyzing the standards and will consult with manufacturers, dealers, conservationists, the EPA, and experts from other states to determine whether they are a good fit for Colorado drivers. At the same time, staff are evaluating recent federal legislation that strengthens mileage standards.

Roles of government and the public . . .

Protecting air quality is a cooperative effort among many parties. Government agencies are responsible for assuring that air quality meets health and environmental standards. The public has an important role through driving habits, consumer choices and energy usage.

Colorado Air Quality Control Commission

www.cdphe.state.co.us/op/aqcc/

The Colorado Air Quality Control Commission has among other responsibilities the development and adoption of a regulatory program to protect and improve air quality in Colorado. Typically, the commission is involved in the maintenance of the regulations through modification and revision. Much of the air quality management program currently is in place and has been adopted over time. The commission typically considers changes to the existing regulatory program. New programs are occasionally considered by the commission as needed to address specific problems.

The commission oversees the implementation of the air quality programs, and is responsible for hearing appeals of the Air Pollution Control Division's implementation of its programs through permit terms and conditions and enforcement actions.

Colorado's air quality management program regulates air pollutant emissions from:

- stationary industrial sources,
- gasoline cars and light-duty trucks,
- diesel vehicles,
- asbestos,
- wood stoves,
- odor,
- lead paint, and
- open burning and the use of prescribed fire.

The air quality program also is focused on visibility and transportation planning impacts to future air quality.

Commission meetings typically are conducted on the third Thursday of each month and may extend into the next day. The commission encourages members of the public to attend these meetings and express their views.

Air Pollution Control Division Programs

www.cdphe.state.co.us/ap/

The Air Pollution Control Division is responsible for implementing the air quality management programs adopted by the Air Quality Control Commission and acts as staff to the commission in the regulatory development process. The division is housed within the Colorado Department of Public Health and Environment.

Mobile Sources Program

www.cdphe.state.co.us/ap/mobile.html

The Mobile Sources Program evaluates, investigates, and administers the requirements aimed at improving vehicle emissions. It conducts research, modeling and planning on the causes and effects of mobile source air pollution.

The staff jointly administers the Automobile Inspection and Readjustment (AIR) Program in the seven-county Denver-metropolitan area with the Colorado Department of Revenue, along with solely administering two separate diesel opacity inspection programs, one designed for large fleets, and the other for individual diesel vehicles. As part of the vehicle emissions testing program, the Mobile Sources Program is effectively using a remote sensing technology to "screen out" about four percent of the fleet from a requirement to visit the testing station. The program is also using the same remote sensing technology to attempt to identify high-emitting vehicles for immediate action.

The Mobile Sources Program also operates a series of vehicle technical centers to provide customer assistance to motorists failing emissions inspections. The center's technicians are recognized experts in their field and contribute to ensuring that the motor vehicle repair industry has access to the latest technical information on vehicle emissions repair procedures and technology.

Planning and Policy Program

www.cdphe.state.co.us/ap/planning.html

The Planning and Policy Program is responsible for a cross-section of air quality planning, policy, education and community outreach tasks. Included among the program's responsibilities are: developing plans to return areas with poor air quality to compliance with federal standards; ensuring transportation plans don't have an adverse impact on air quality; policy development; community-outreach; pollution prevention; public information; environmental assessments; and air quality education in schools.

The Planning and Policy Program coordinates the division's three high-profile issues: ozone planning, regional haze plan development and the Rocky Mountain National Park Initiative.

Roles of government and the public . . .

Stationary Sources Program

www.cdphe.state.co.us/ap/stationary.html

The Stationary Sources Program evaluates and develops permits for stationary sources such as gas stations, dry cleaners, auto finishers, electric utilities, mining operations, construction projects and oil and gas development sites. More than 10,500 sources are registered in Colorado. Staff members inspect sources to determine their compliance with regulations and permit conditions, and maintain a computerized inventory of air pollution emissions in Colorado. The Stationary Sources Program is working to streamline permitting through the use of general permits and improve compliance by using self-certification programs in conjunction with traditional inspection programs.

The Stationary Sources Program operates robust compliance assistance and small business assistance programs emphasizing pollution prevention to improve regulatory compliance.

Indoor Air Quality Program

www.cdphe.state.co.us/ap/Indoor.html

The Indoor Air Quality Program provides technical assistance on indoor air pollutants. The program regulates the use of ozone-depleting compounds (chlorofluorocarbons), the abatement of asbestos and the removal of lead-based paint. The Indoor Air Quality Program certifies abatement workers/professionals, issues permits and conducts regular inspections to ensure compliance with the requirements, including the regulation of asbestos removal and demolition activities, and the review of school asbestos management plans.

Technical Services Program

www.colorado.gov/airquality/

The Technical Services Program is responsible for the collection and analysis of ambient air quality data throughout the state. Particulate and gaseous monitors are operated in many Colorado communities to keep track of air quality trends, population exposure to pollutants and compliance with air quality standards.

The program also is responsible for providing complex air quality modeling analysis to determine the impacts various sources of air pollution will have on air quality.

Air quality forecasting is conductedfor the wintertime high pollution season, the summer ozone season, and for smoke impacts from wildfires.

The program manages the state's visibility program to protect visual air quality in both urban and rural areas, including National Parks and Wilderness Areas. The program also manages smoke through a burn permit process and by working with fire managers to review and approve plans and practices for controlled burns.

Federal Government

The U.S. Environmental Protection Agency (EPA)

The U.S. EPA has established a regulatory framework for state's to follow through the Clean Air Act. The act was first established in 1970 to clean up the nation's air pollution. Colorado implements the requirements of the Clean Air Act through regulations adopted by the Colorado Air Quality Control Commission. The commission's air quality management program encompasses the requirements of the federal Clean Air Act.

The U.S. EPA provides Colorado with policy directives and guidance, oversight, and funding to assist with meeting the requirements of the Clean Air Act.

Federal Land Managers

Federal lands in Colorado are managed by various branches of the federal government, such as the Bureau of Land Management, the U.S. Forest Service, and the National Park Service. Major activities on these lands that impact air quality may come under review through the National Environmental Policy Act (NEPA). Examples of major activities may include highway transportation projects, ski area expansions, oil and gas development or mining activities.

Federal agencies must prepare either environmental assessments or detailed environmental impact statements for major federal actions that affect the environment. Colorado is a partner agency in reviewing these actions, and the public has a role in commenting on such actions through the NEPA process.

Alternatives may be evaluated in the process before a final decision is made on implementing major projects on federal lands.

Local Government

Counties and Municipalities

Many air quality programs are implemented at the county and municipal level. In some cases, the state contracts with counties to implement state programs related to air quality monitoring, inspections of pollutant sources, open burning, and the control of asbestos and chlorofluorocarbons.

Most municipalities in the Denver-metropolitan area have ordinances in place to enforce the state's residential burning restrictions in the winter. Aspen, Grand Junction, Eagle County and San Miguel County have implemented their own residential woodburning controls. Many local jurisdictions have ordinances to control open burning of trash and debris.

Many communities have established controls for fugitive dust and odor. These controls may include dust mitigation plans for construction activities,

street sweeping, projects to pave or treat dirt roads, and inspection and enforcement provisions for odors.

In addition to specific air quality efforts, many counties and municipalities have developed a variety of environmentally beneficial programs to reduce traffic, conserve energy and recycle.

Indian Tribes

Indian tribes in Colorado have authority to protect and improve air quality on tribal lands. Colorado has established an effective, collaborative relationship with the Southern Ute Indian Tribe through Four Corners Air Quality Task Force activities and other interactions in recent years. The tribe actively monitors air quality at a number of sites and is working vigorously toward the establishment of its own air quality permitting programs.

An intergovernmental agreement signed in 1999 between the Southern Ute Indian Tribe and the state of Colorado created the Southern Ute Indian Tribe/ State of Colorado Environmental Commission. It is dedicated to overseeing the development and implementation of a comprehensive and effective program for the protection of air quality throughout the Southern Ute Indian Reservation.

Local Planning Agencies

Local planning agencies exist in several metropolitan areas. The agencies have a variety of functions, including air quality and transportation planning.

Regional Air Quality Control Council

www.raqc.org

The Regional Air Quality Council (RAQC) was established in 1989 to serve as the lead air quality planning agency for the Denver metropolitan area.

The mission of the Regional Air Quality Council is to develop and propose effective and cost-efficient air quality planning initiatives with input from government agencies, the private sector, stakeholder groups, and citizens of the Denver metropolitan region. Its primary task is to prepare state implementation plan elements that demonstrate and ensure long-term compliance with state and federal air quality standards and provide acceptable public health and environmental protections to those residing in the Denver metropolitan area, as well as the North Front Range area, as appropriate.

Pikes Peak Area Council of Governments

www.ppacg.org

The Pikes Peak Area Council of Governments (PPACG) is the metropolitan planning organization (MPO) and lead air quality planning agency for the Colorado Springs urbanized area.

PPACG reviews current and emerging air quality issues, develops plans to improve air quality, and is responsible for development and implementation of the carbon monoxide maintenance plan to ensure the region meets federal carbon monoxide standards. PPACG also develops transportation plans. The plans must demonstrate that they will not cause or contribute to a violation of the national air quality standards.

North Front Range Transportation and Air Quality Planning Council

www.nfrmpo.org

The North Front Range Transportation and Air Quality Planning Council was established in 1988 as the metropolitan planning organization for the Greeley and Fort Collins areas. In 1993 the council was designated by the governor as the lead air quality planning organization for both of these areas. The council is responsible for the development and implementation of the Fort Collins and Greeley elements of the state implementation plan (SIP) for attainment of air quality standards and for other transportation related air quality planning projects in the North Front Range region. The transportation plans must demonstrate that they will not cause or contribute to a violation of the national air quality standards.

Denver Regional Council of Governments

www.drcog.org

The Denver Regional Council of Governments (DRCOG) has been in existence for more than 50 years and focuses on a variety of quality of life planning priorities for a nine-county area. These issues include mobility, service to older adults, environmental concerns, planning for the future, public safety, and the provision of information for sound decision-making.

In terms of air quality, DRCOG develops transportation plans that show the air quality impacts of transportation projects. The transportation plans must demonstrate that they will not cause or contribute to a violation of the national air quality standards. This process requires detailed analysis of the impacts of transportation projects and traffic on air quality.

The public

Everyone has an important part to play in reducing air pollution. Here are a few suggested ways you can make a difference in your own community.

On the road

- Drive a fuel efficient and low polluting vehicle.
- Keep your car tuned up and tires inflated to the recommended pressure to increase mileage and reduce the need for refueling.
- Refuel in the evening, so fuel vapors will not have a chance to "cook" into ozone.
- When refueling, stop at the click — when the nozzle clicks off. Don't overfill or drip fuel. Fuel creates ozone-causing vapors as it evaporates.
- Reduce Driving.
    - Delay trips.
    - Combine errands into one trip.
    - Shop close to home.
    - Carpool.
    - Walk or bike.
    - Use public transportation.
    - Telecommute or teleconference.

Around the Yard

- Wait till evening to mow when cooler temperatures create less ozone.
- Use a new earth-friendly lawn mower — an electric- or battery-powered mower, a non-motorized push mower, or a new gasoline-powered mower.
- Maintain your mower to help it run cleaner — change the air filter, oil and spark plugs at least once each season. Keep the underside of the mower free of grass buildup.
- Avoid using two-stroke gasoline-powered yard equipment, such as weed trimmers, since they emit a disproportionate share of air pollution.
- Use a funnel to refuel equipment — avoid even small spills and drips.
- Reduce lawn watering and fertilizing to discourage excessive lawn growth.
- Xeriscape to reduce lawn area, or change to native Western grasses to reduce the need for irrigation and mowing.
- Plant trees. Trees not only add oxygen, they reduce dust and act as natural heat controllers, providing shade in the summer and allowing sunlight in the winter.

• Choose an alternative to charcoal grilling.
• Don't use charcoal lighter fluids, which emit harmful vapors. Use an electric starter or charcoal chimney instead.

Around the house

• Avoid solvent-based products, which have pollution causing vapors. Use water-based paint, stain and sealants.
• If you must use a solvent-based product, avoid using it on Ozone Action Alert days or use it in the evening.
• Avoid spray paints, most of which are solvent based. Very fine spray also can become airborne. Use paint brushes and rollers instead.
• Tightly cap all solvents (gasoline, paint thinners, strippers, degreasers) and store in a cool place to avoid evaporation.
• Plan major painting, stripping and refinishing projects for spring and fall to avoid summer heat and sun which react with vapors to create ozone pollution.
• Avoid use of flammable household products, such as some floor wax, furniture polish, fabric cleaners and insect foggers, most of which contain solvents.
• Don't burn wood, including in-home woodburning stoves or outdoor burning devices. If you must burn use only EPA certified devices for low emissions.
• Conserve energy. If we use less energy power plants burn less coal and natural gas.
    • Insulate and weatherstrip.
    • Take quick showers. They use less hot water than baths.
    • Close doors to unused rooms and don't heat or cool them.
    • Keep your home cooler in the winter and warmer in the summer.
    • Wash clothes in cold water.
    • Hang laundry out to dry instead of using a clothes dryer.
    • Run dishwashers and washing machines only when there is a full load.
    • Turn off unused lights and appliances.
    • Use fluorescent lights instead of incandescent bulbs.
    • Recycle everything you can (paper, glass, metal cans, aluminum and plastic). It takes less energy to recycle than to create new material.

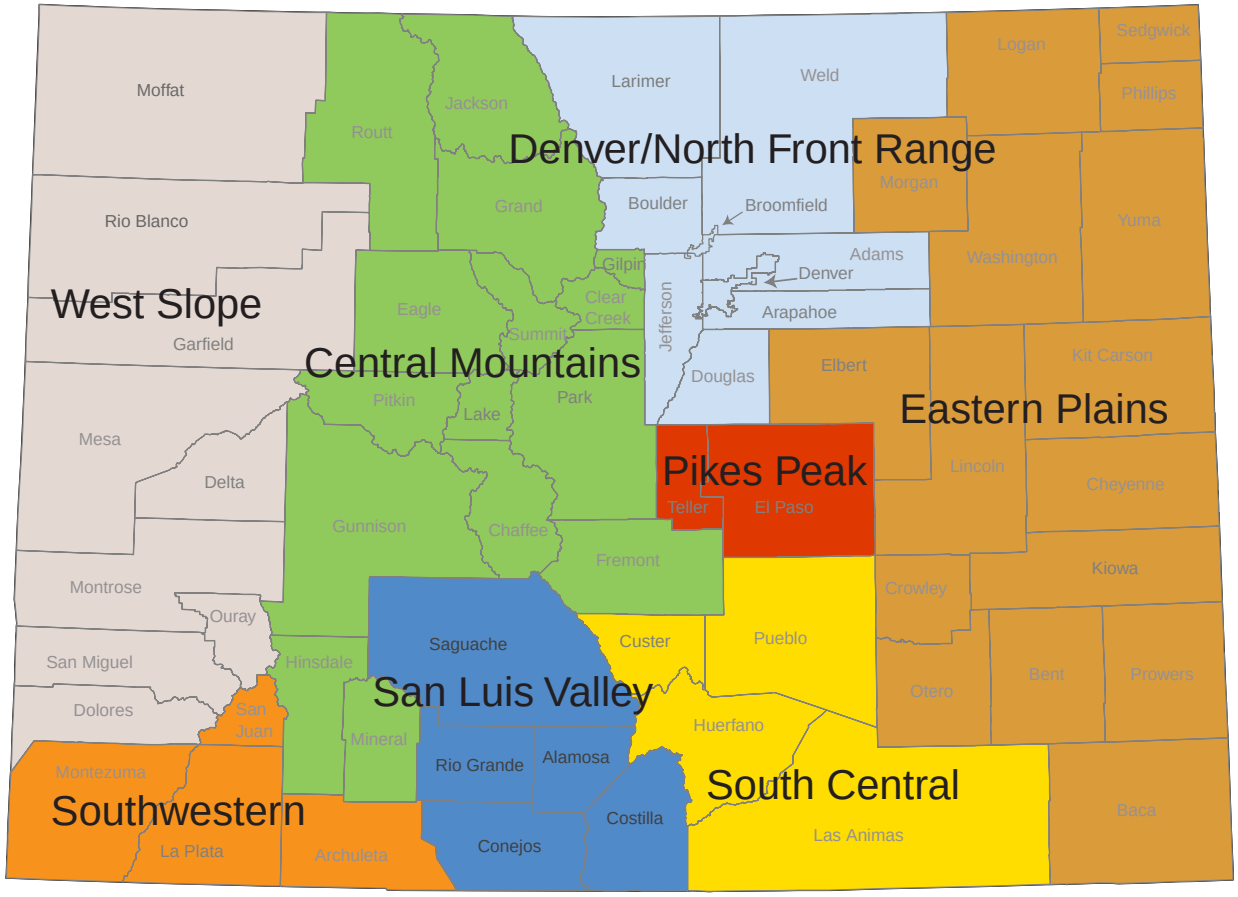
Get involved

• Get involved in your local government processes related to air pollution and offer your input.
• Visit websites listed in this report to learn more about air pollution.
• Pay attention to news reports about air pollution and follow the suggestions listed here on high pollution or Ozone Action Alert days.
• Report problems. If you think you see an air pollution problem report it to your local or state agency.

Regional air quality . . .

Areas of the state differ greatly from one another in landscape, weather conditions, population, motor vehicle traffic, amount of industry and burning practices. This section of the report separates Colorado into eight regions to more clearly address each region's specific air quality conditions and activities.

State Air Quality Planning Regions



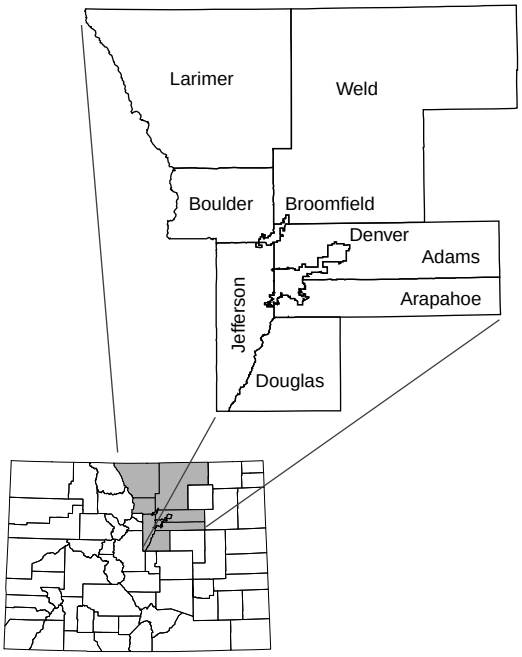
Denver Metro/ North Front Range Region

The Denver Metro - North Front Range Region includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer and Weld counties. It includes the largest population area of the state, with 2.7 million people living in the seven-county Denver metro area and another half-million living in the northern Colorado area of Larimer and Weld counties. This area includes Rocky Mountain National Park and several wilderness areas.

The area has been exceeding ozone standards since the early 2000s and was designated a federal nonattainment area for ozone in 2007. See the ozone information under Major Initiatives.

In the past, the Denver-metropolitan area violated health-based air quality standards for carbon monoxide and fine particles. In response, the Regional Air Quality Council, the Colorado Air Quality Control Commission and the Air Pollution Control Division developed, adopted and implemented air quality improvement plans to reduce each of the pollutants.

Fort Collins, Longmont and Greeley were nonattainment areas for carbon monoxide in the 1980s and early 1990s, but have met the federal standards since 1995. Air quality improvement plans have been implemented for each of these communities.



Air Pollution Sources

- Motor vehicles
- Road dust
- Oil and gas exploration and production
- Large commercial breweries
- Petroleum refining
- Asphalt production
- Cement manufacturing
- Sand and gravel operations
- Glass bottle manufacturing
- Commercial seating manufacturing
- Area-wide remediation at Rocky Mountain Arsenal
- Coal and natural gas power plants

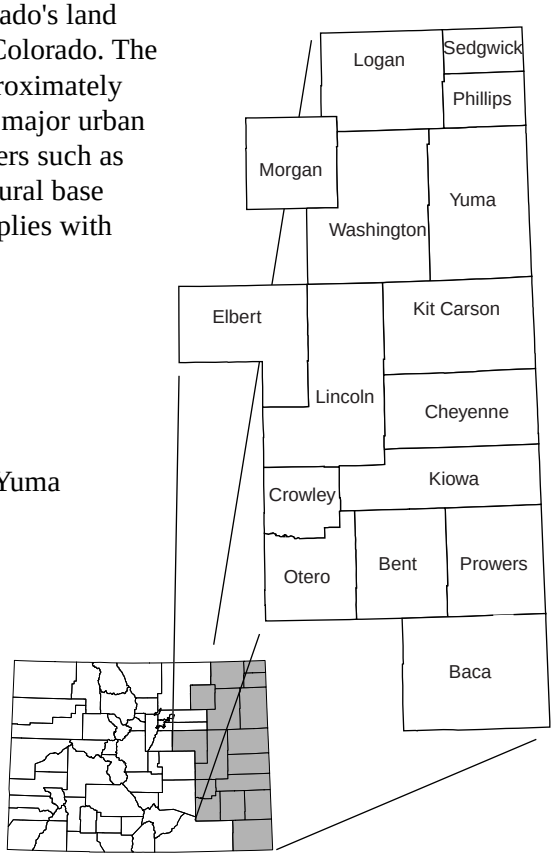
Regional air quality . . .

Air Pollution Control Measures

- Automobile emissions inspection and maintenance program
- Street sweeping
- Controls on oil and gas production tanks, valves and engines
- Permitting program limiting emissions from industrial sources
- Lime Spray dryers to reduce sulfur oxide emissions from power plants
- Baghouses to reduce particulate matter emissions from power plants
- Non-selective catalytic reduction to reduce NOx at cement plant
- Low NOx burners for boilers at power plants

Eastern High Plains Region

The Eastern High Plains region makes up 40 percent of Colorado's land area and encompasses the counties on the plains of eastern Colorado. The area is semiarid and often windy. The area's population was approximately 158,000 in 2007 according to U.S. Census Bureau estimates. Its major urban centers have developed around farming, ranching and trade centers such as Sterling, Fort Morgan, Limon, La Junta and Lamar. The agricultural base includes both irrigated and dryland farming. All of the area complies with federal air quality standards.



Air Pollution Sources

- Motor vehicles
- Windblown dust
- Odors from confined animal feeding operations
- Natural gas processing and transmission in Cheyenne and Yuma counties
- Pawnee Power Plant near Brush
- Western Sugar beet sugar processing in Fort Morgan
- Cargill Meat packing plant in Fort Morgan
- Lamar Power Plant in Lamar

Air Pollution Control Measures

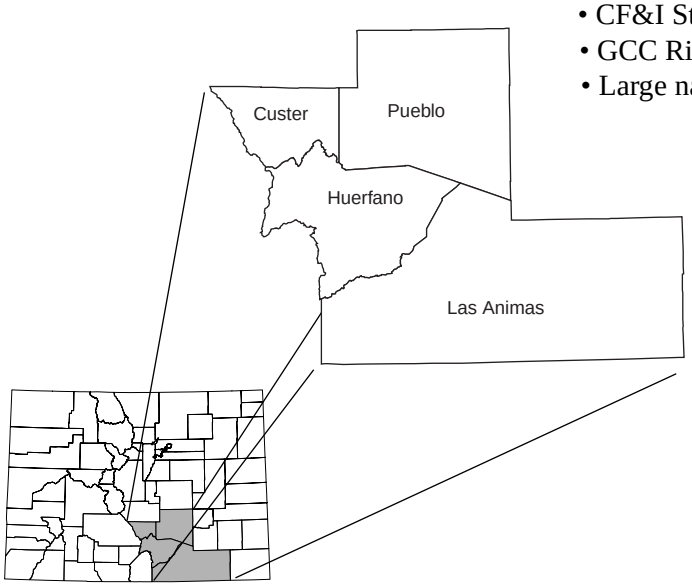
- Dust control plans for Lamar
- State odor control regulation for hog farms
- Statewide oil and gas controls
- Scrubbers, baghouses, dust collectors and area dust suppression at Western Sugar
- Lime spray dryer and low NOx burner at Pawnee Power Plant
- Low NOx burners, packed scrubber and flare device, along with other permit conditions to limit emissions at the Cargill meat packing plant
- Baghouse to control particulate matter and limestone combustion injection to control sulfur dioxide at Lamar Power Plant

South Central Region

The South Central Region is comprised of Pueblo, Huerfano, Las Animas and Custer counties. Its population is approximately 184,400 according to a 2007 estimate by the Colorado State Demography Office. Urban centers include Pueblo, Trinidad and Walsenburg. The region has rolling semiarid plains to the east and is mountainous to the west. All of the area complies with federal air quality standards.

Air Pollution Sources

- Motor vehicles
- Fugitive dust
- The Comanche Power Plant near Pueblo
- CF&I Steel in Pueblo
- GCC Rio Grande Cement in Pueblo
- Large natural gas compressor stations in Las Animas County



Air Pollution Control Measures

- Local dust control plans
- Selective catalytic reduction, low NOx burners and lime spray dryers at Comanche Power Plant to reduce NOx and SO2 emissions.
- Compliance actions, monitoring and mercury reduction program at Rocky Mountain Steel Mills
- VOC controls on natural gas compressor stations

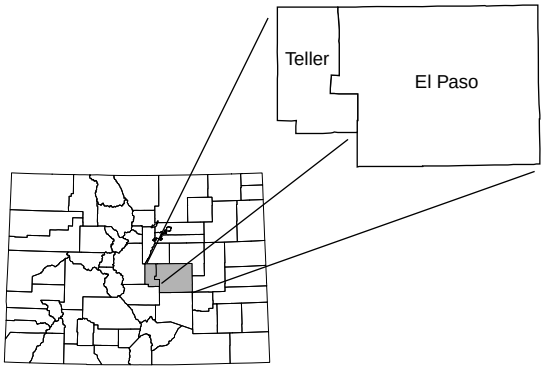
Pikes Peak Region

The Pikes Peak Region includes El Paso and Teller counties. The area has a population of approximately 610,000 according to a 2007 estimate from the Colorado State Demography Office. Eastern El Paso County is rural prairie, while the western part of the region is mountainous. All of the area complies with federal air quality standards.

Air Pollution Sources

As in other urbanized areas in Colorado, pollutants in the Pikes Peak Region originate primarily from stationary and mobile sources.

- Motor vehicles
- Road dust
- Area dust from construction activities
- The Drake and Nixon power plants and Fountain Valley Electric Generating Station
- Sand and gravel operations



Air Pollution Control Measures

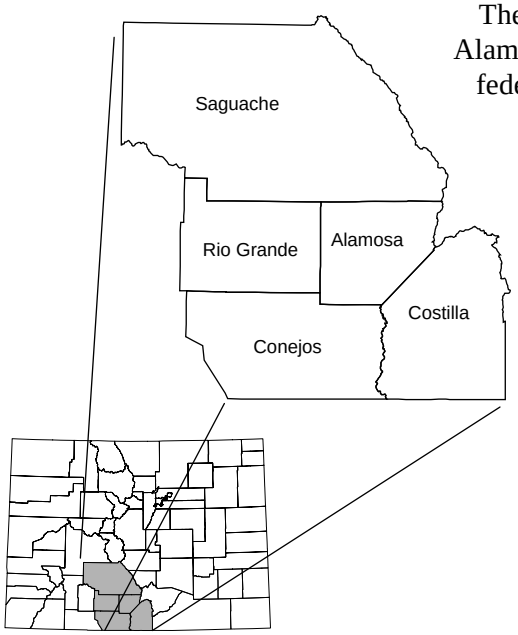
- Street sweeping
- Dust control plans
- Lime spray dryers and low NOx boilers at power plant to control NOx and SO2 emissions

San Luis Valley Region

Colorado's San Luis Valley Region is in the south central portion of Colorado and includes a broad alpine valley situated between the Sangre De Cristo Mountains on the northeast and the San Juan Mountains of the Continental Divide to the west. The valley is some 71 miles wide and 122 miles long, extending south into New Mexico. The average elevation is 7,500 feet. Principal towns include Alamosa, Monte Vista and Del Norte. The population is about 47,200, according to a 2007 estimate from the Colorado State Demography Office. Agriculture and tourism are the primary industries. The valley is semi-arid and croplands of potatoes, head lettuce and barley are typically irrigated.

The valley is home to Great Sand Dunes National Park.

The air quality planning region consists of Saguache, Rio Grande, Alamosa, Conejos and Costilla counties. All of the area complies with federal air quality standards.



Air Pollution Sources

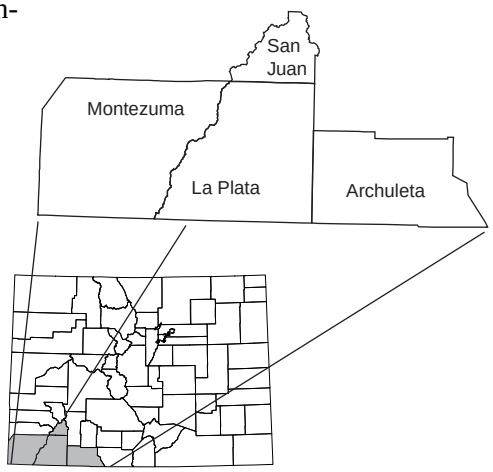
- Blowing dust
- Motor vehicles

Air Pollution Control Measures

- Alamosa Natural Events Action plan for windblown dust mitigation, which includes elements such as:
  - Blowing dust advisories and forecasting
  - Public outreach on dust mitigation
  - Dust control measures, such as street sweeping, curtailing construction activities that disturb soil, applying water to disturbed soils, planting vegetation and wind breaks, reducing or postponing tilling and plowing

Southwestern Region

The Southwestern Region includes the Four Corners area counties of Montezuma, La Plata, Archuleta and San Juan. The population of this region is about 88,515, according to a 2007 estimate from the Colorado State Demography Office. The landscape includes mountains, plateaus, high valleys and canyons. Durango and Cortez are the largest towns. Lands of the Southern Ute and Ute Mountain Indian tribes make up large parts of this region. The region is home to Mesa Verde National Park. Tourism and agriculture are dominant industries. The oil and gas industry is growing in this area. All of the area complies with federal air quality standards.



Air Pollution Sources

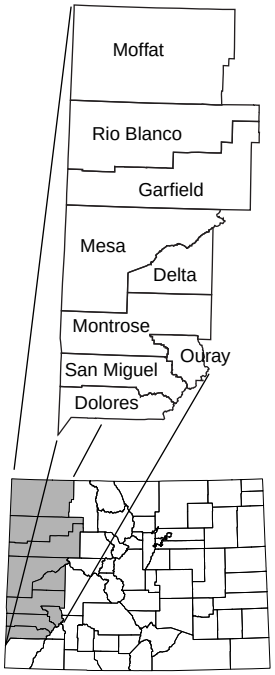
- Motor vehicles
- Natural gas processing and transmission
- Two coal-fired power plants in New Mexico
- Gas field development in Colorado, Southern Ute Indian Reservation, and New Mexico
- Wildfires
- Durango & Silverton coal-fired steam locomotive tourist train

Air Pollution Control Measures

The main air pollution control measures in this region include:

- Statewide oil and gas emission controls
- Smoke Management Program
- Durango Train Smoke Task Force
- Tribal permitting and control of emission sources

Western Slope Region



The Western Slope Region includes nine counties on the far western border of Colorado. A mix of mountains on the east, and mesas, plateaus, valleys and canyons to the west form the landscape of this region. Grand Junction is the largest town. Other larger towns include Telluride, Montrose, Delta, Rifle, Glenwood Springs, Meeker, Rangely and Craig. The population of this region is about 301,000, according to a 2007 estimate by the State Demography Office. Primary industries include ranching, agriculture, mining, energy development and tourism. Dinosaur and Colorado National Monuments are located in this region. The Western Slope, along with the central mountains, are projected to be the fastest growing areas of Colorado through 2020 with greater than two percent annual population increases, according to the Colorado Department of Local Affairs. All of the area complies with federal air quality standards.

Air Pollution Sources

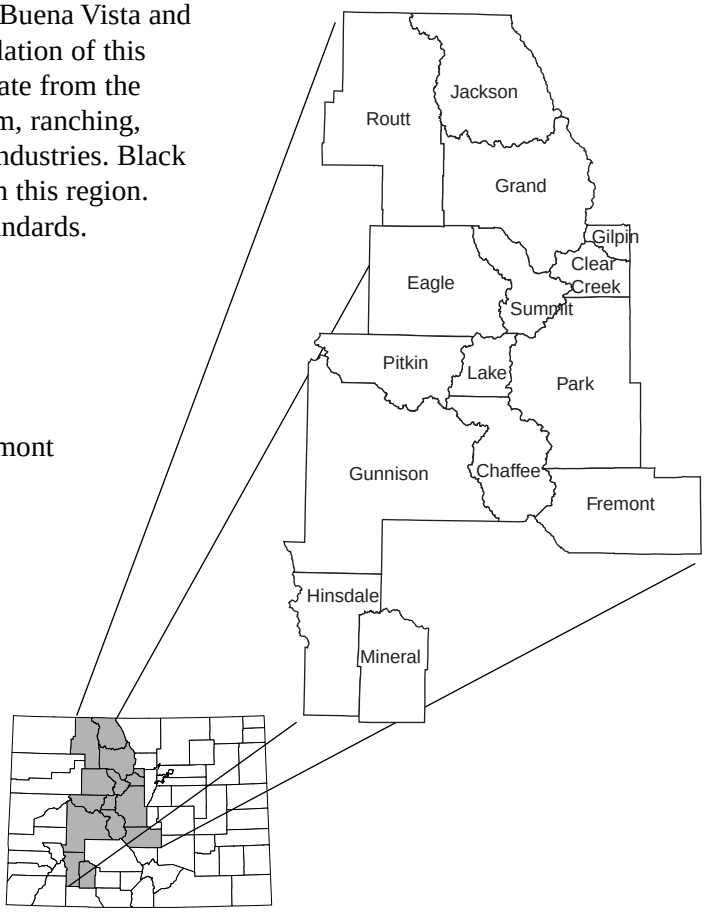
- Motor vehicles
- Oil and gas development
- Cameo, Nucla and Craig coal-fired power plants
- Coal mines in Delta, Mesa, Moffat and Montrose counties
- Sand and gravel operations
- Windblown dust
- Wildfires
- Prescribed fire

Air Pollution Control Measures

- Power plant controls include scrubbers, baghouses, low NOx burners (Nucla also employs fluidized bed combustion for sulfur dioxide control)
- Statewide controls on oil and gas production
- Natural Events Action Plan for wildfires
- Smoke Management Program for prescribed fire
- Fugitive dust control plans
- Particulate matter control plan for Telluride includes: woodburning control measures, street sweeping and sanding controls, use of chemical deicers, and paving of dirt roads

Central Mountains Region

The Central Mountains Region consists of 15 counties in the central area of the state. The Continental Divide passes through much of this region. Mountains and mountain valleys are the dominant landscape. Leadville, Steamboat Springs, Cañon City, Salida, Buena Vista and Aspen represent the larger communities. The population of this region is about 258,000, according to a 2007 estimate from the Colorado State Demography Office. Skiing, tourism, ranching, mining and correctional facilities are the primary industries. Black Canyon of the Gunnison National Park is located in this region. All of the area complies with federal air quality standards.



Air Pollution Sources

- Motor vehicles
- Holcim Portland Cement in Fremont County
- Sand and Gravel Operations
- Black Hill Electric Generating Station in Fremont County
- Craig and Hayden power plants
- Climax Molybdenum Mine
- Oxbow and Mountain Coal mining facilities in Gunnison County
- Wildfires
- Controlled burning

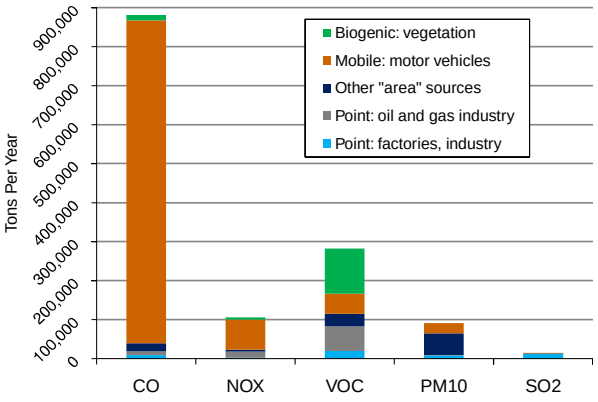
Air Pollution Control Measures

- Wet and dry limestone scrubbers to reduce SO2 emissions, fabric filter baghouse to control particulate emissions and low-NOx burners to control NOx at the Craig and Hayden power plants
- Smoke management program for large controlled burns
- Selective Non-Catalytic Reduction emissions control at Holcim for NOx reduction
- Air Pollution Control Plans for Aspen, Cañon City and Steamboat Springs to control particulate matter through woodburning controls in each town, street sanding and sweeping controls in Aspen and Steamboat Springs, and traffic reduction measures in Aspen. Any industries located in these towns now or in the future must also comply with emission controls as part of state regulations.

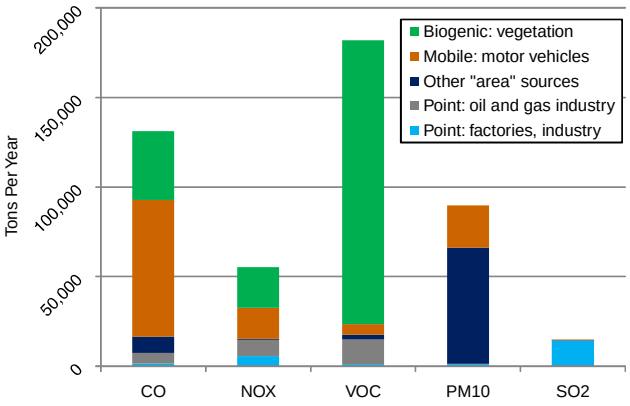
Regional sources of pollutants

Table acronyms:
CO: Carbon Monoxide
NOx: Oxides of Nitrogen
VOC: Volatile Organic Compounds
PM10: Particles less than 10 microns in diameter
SO2: Sulfur Dioxide

Denver/North Front Range Air Pollution Sources



Eastern Plains Air Pollution Sources



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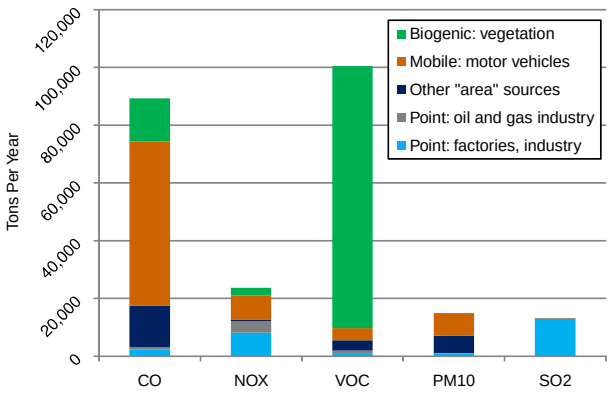
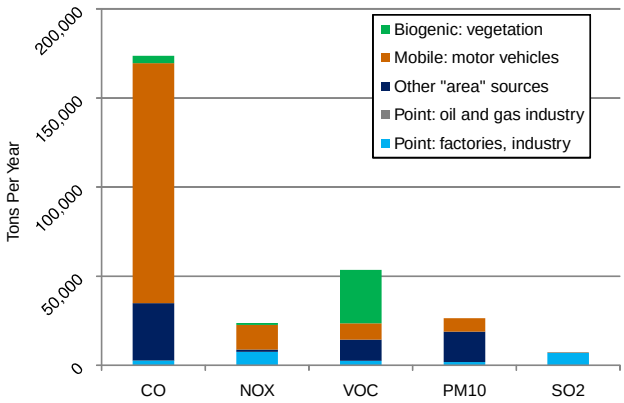
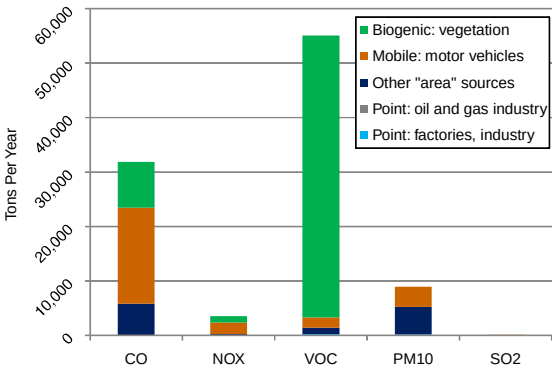


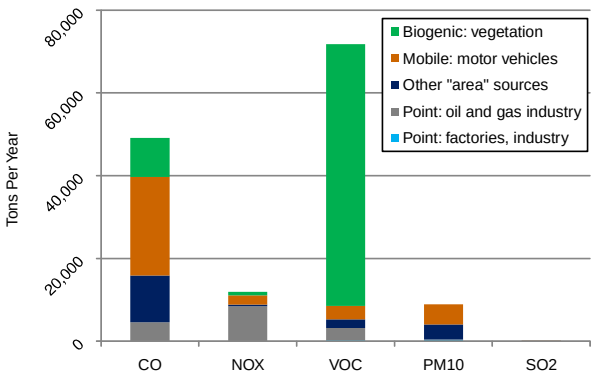
Pikes Peak Air Pollution Sources



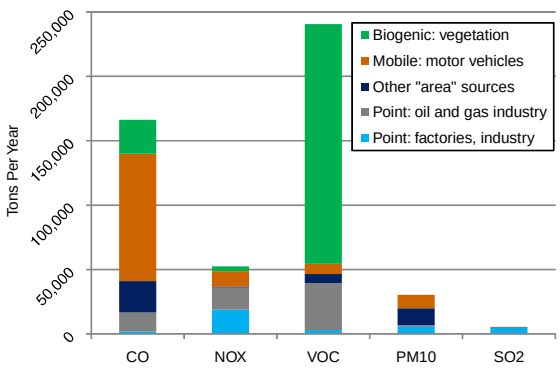
San Luis Valley Air Pollution Sources



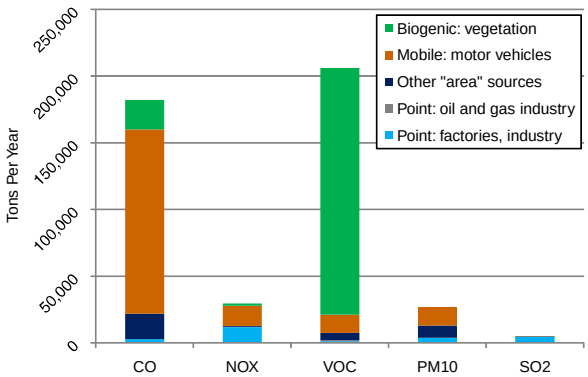
Southwestern Air Pollution Sources



West Slope Air Pollution Sources



Central Mountains Air Pollution Sources



Air Quality Control Commission
Report to the Public 2008-2009

Appendix

- Regional air pollution levels
- Pollutant standards and health effects
- Summary of regulations
- Enforcement Report
- Regional contact information
- Statutory requirement for report to public

2008 Air Pollution Levels

Denver / North Front Range: counties of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, Weld

Pollutant	Monitoring Site with Highest Level *	Percent of Standard ** (See appendix for standards)
Carbon Monoxide	2105 Broadway, Denver	7.0 ppm -- 20% of 1-hour standard
	2105 Broadway, Denver	3.1 ppm -- 33% of 8-hour standard
Ozone	12400 W. Hwy. 285	.102 ppm -- 82% of 1-hour standard
	16600 W. Colorado #128	.086 ppm -- 113% of 8-hour standard
Nitrogen Dioxide	2105 Broadway, Denver	.029 ppm -- 54% of annual average standard
Sulfur Dioxide	2105 Broadway, Denver	.032 ppm -- 6% of 3-hour standard
	2105 Broadway, Denver	.018 ppm -- 12% of 24-hour standard
	78th Ave. & Steele St., Denver	.003 ppm -- 9% of annual standard
PM10	7101 Birch St., Commerce City	142 ug/m^3 -- 92% of 24-hour standard
	7101 Birch St., Commerce City	32 ug/m^3 -- 62% of annual average standard
PM2.5	7101 Birch St., Commerce City	30.2 ug/m^3 -- 85% of 24-hour standard
	7101 Birch St., Commerce City	9.46 ug/m^3 -- 61% of annual average standard
Lead	678 S. Jason St., Denver	.009 ug/m^3 -- 6% of revised 2008 standard

Eastern High Plains: counties of Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Logan, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, Yuma

Pollutant	Monitoring Site with Highest Level *	Percent of Standard ** (See appendix for standards)
PM10	Lamar Power Plant, 100 N. 2nd Ave.	367 ug/m^3 -- 237% of 24-hour standard (high wind event)
	Lamar Power Plant, 100 N. 2nd Ave.	30.0 ug/m^3 -- 54% of annual average standard
PM2.5	Vicinity of Roads 5 and 98, Elbert County	14.5 ug/m^3 -- 41% of 24-hour standard
	Vicinity of Roads 5 and 98, Elbert County	4.4 ug/m^3 -- 28% of annual average standard

South Central: counties of Custer, Huerfano, Las Animas, Pueblo.

Pollutant	Monitoring Site with Highest Level *	Percent of Standard ** (See appendix for standards)
PM10	211 D St., Pueblo	120 ug/m^3 -- 77% of 24-hour standard
	211 D St., Pueblo	28.7 ug/m^3 -- 52% of annual average standard
PM2.5	211 D St., Pueblo	16.1 ug/m^3 -- 45% of 24-hour standard
	211 D St., Pueblo	7.7 ug/m^3 -- 50% of annual average standard

Central Mountains: counties of Chaffee, Clear Creek, Gilpin, Eagle, Fremont, Grand, Gunnison, Hinsdale, Jackson, Lake, Mineral, Park, Pitkin, Routt, Summit.

Pollutant	Monitoring Site with Highest Level*	Percent of Standard ** (See appendix for standards)
PM10	136 6th St., Steamboat Springs	124 ug/m^3 -- 80% of 24-hour standard
	603 6th St., Crested Butte	30.4 ug/m^3 -- 55% of annual average standard

Pikes Peak Region: counties of El Paso and Teller

Pollutant	Monitoring Site with Highest Level *	Percent of Standard ** (See appendix for standards)
Carbon Monoxide	690 W. Hwy. 24, Colorado Springs	3.5 ppm -- 10% of 1-hour standard
	690 W. Hwy. 24, Colorado Springs	2.3 ppm -- 24% of 8-hour standard
Ozone	101 Bank's Place, Manitou Springs	.087 ppm -- 70% of 1-hour standard
	101 Bank's Place, Manitou Springs	.073 ppm -- 96% of 8-hour standard
PM10	130 W. Cache LaPoudre, Colorado Springs	46 ug/m^3 -- 30% of 24-hour standard
	130 W. Cache LaPoudre, Colorado Springs	21.5 ug/m^3 -- 39% of annual average standard
PM2.5	101 W. Costilla, Colorado Springs	20.4 ug/m^3 -- 57% of 24-hour standard
	101 W. Costilla, Colorado Springs	7.7 ug/m^3 -- 50% of annual average standard

San Luis Valley: counties of Alamosa, Conejos, Costilla, Rio Grande, Saguache.

Pollutant	Monitoring Site with Highest Level*	Percent of Standard ** (See appendix for standards)
PM10	425 4th St., Alamosa	157 ug/m^3 -- 101% of 24-hour standard (high wind event)
	425 4th St., Alamosa	26.4 ug/m^3 -- 48% of annual average standard

* For carbon monoxide, the site with the highest second maximum value is used for consistency with standards. For the eight-hour ozone standard, the site with the highest three-year average of the fourth-maximum value is used for consistency with standards. Ozone monitors in Cortez and Rifle began operation in 2008 so three-year average values are not yet available at those sites. For PM2.5 the site with the highest three-year average of the 98th percentile concentration is used for comparison to the standard.

* * All values are directly comparable to actual standards. For example, particulate matter and eight-hour ozone values are the three-year average values for consistency with standards.

Southwestern: counties of Archuleta, La Plata, Montezuma, San Juan

Pollutant	Monitoring Site with Highest Level *	Percent of Standard ** (See appendix for standards)
Ozone	106 W. North St., Cortez 106 W. North St., Cortez	.067 ppm -- 54% of 1-hour standard .064 ppm -- 84% of 8-hour standard
PM10	309 Lewis St., Pagosa Springs 309 Lewis St., Pagosa Springs	149 ug/m^3 -- 96% of 24-hour standard 23.6 ug/m^3 -- 43% of annual average standard
PM2.5	106 W. North St., Cortez 106 W. North St., Cortez	25.3 ug/m^3 -- 71% of 24-hour standard 6.0 ug/m^3 -- 39% of annual average standard

Western Slope: counties of Delta, Dolores, Garfield, Mesa, Moffat, Montrose, Ouray, Rio Blanco, San Miguel

Pollutant	Monitoring Site with Highest Level*	Percent of Standard ** (See appendix for standards)
Ozone	195 W. 14th St., Rifle 195 W. 14th St., Rifle	.081 ppm -- 65% of 1-hour standard .074 ppm -- 97% of 8-hour standard
Carbon Monoxide	645 1/4 Pitkin Ave., Grand Junction 645 1/4 Pitkin Ave., Grand Junction	6.8 ppm -- 19% of 1-hour standard 1.5 ppm -- 16% of 8-hour standard
PM10	100 E. 2nd St., Parachute 144 E. 3rd Ave., Rifle	210 ug/m^3 -- 135% of 24-hour standard 31.5 ug/m^3 -- 57% of annual average standard
PM2.5	650 South Ave., Grand Junction 650 South Ave., Grand Junction	25.0 ug/m^3 -- 70% of annual average standard 9.4 ug/m^3 -- 61% of annual average standard

Pollutants	Health Effects	Areas Affected in Colorado
Carbon Monoxide (CO) is a colorless, odorless and tasteless gas. It results from incomplete combustion; its major sources in urban areas are motor vehicle emissions and woodburning.	Carbon monoxide affects individuals by depriving the body of oxygen. It enters the body through the lungs and inhibits the body's ability to transport oxygen. Carbon monoxide can reduce a healthy person's ability to perform manual tasks, and it can affect pregnant women, fetuses, anemic individuals and persons with cardiovascular diseases.	No violations statewide since 1995.
Particulate Matter (PM) describes the tiny particles of solid or semi-solid material found in the atmosphere, often referred to as dust. It is classified according to size: •TSP= total suspended particles •PM10 = particles smaller than 10 microns •PM2.5= particles smaller than 2.5 microns	Particulate matter can reduce lung function, aggravate respiratory conditions and may increase the long-term risk of cancer or development of respiratory problems.	Affected areas include high-density urban areas and communities where blowing dust is a problem. Exceedances occurred in 2009 in Alamosa, Lamar, Pagosa Springs, Durango and Delta for PM10 and in Grand Junction for PM2.5.
Ozone (O_3) is a highly reactive form of oxygen; it is not emitted directly from a source, rather it is formed from the reaction of pollutants with sunlight. Ground-level ozone (photochemical smog) should not be confused with stratospheric ozone – the protective ozone layer located in the upper atmosphere.	Exposure to high concentrations of ozone can impair the function of lungs; it may induce respiratory symptoms in individuals with asthma, emphysema or reduced lung function; it potentially can reduce immune system capacity; and it can act as an irritant to mucous membranes of eyes and throat.	Suburban areas downwind of urban areas are most affected. Violation of the eight-hour standard in the Denver-metro area last occurred for the 2006-2008 three-year period.
Sulfur Dioxide (SO_2) is a colorless gas with a pungent odor at high concentrations; it is highly soluble with water and is a major contributor to "acid rain." It is emitted primarily from combustion sources.	Sulfur dioxide can aggravate an individual's respiratory tract, impair pulmonary functions and increase the risk of asthma attacks.	All of Colorado has met the standard.
Lead (Pb) exists in the atmosphere primarily as an inhalable particulate; its primary source is motor vehicles that burn leaded gasoline.	Lead can impair an individual's production of hemoglobin; cause intestinal cramps, peripheral nerve paralysis, anemia and severe fatigue.	All of Colorado has met the standard.
Asbestos is a mineral fiber found in building materials and automobile brake linings.	Asbestos can cause respiratory problems and increase the risk of lung cancer. It can cause asbestosis – a scarring of the lung tissue which restricts breathing; it also can cause mesothelioma – cancer of the lung and intestinal lining.	Buildings where asbestos has been used are of primary concern, particularly during removal or renovation.
Nitrogen Dioxide (NO_2) is a gas contributing to photochemical smog (ozone) production. It is a by-product of oxides of nitrogen emitted from combustion sources and motor vehicles.	Nitrogen dioxide can increase respiratory problems, cause mild symptomatic effects in asthmatic individuals and increase susceptibility to respiratory infections.	All of Colorado has met the standard.
Hazardous Air Pollutants are pollutants known or suspected of causing cancer or other serious health effects.	Hazardous air pollutants can increase risk of cancer, sterility and nervous system disorders.	Statewide.

State & Federal Air Pollutant Standards	State & Local Programs/Strategies To Reduce Air Pollutants
Two state and federal carbon monoxide standards exist. Both standards average the concentration of carbon monoxide across specified time periods – one hour and eight hours. The 1-hour standard is set at 35 parts per million and the 8-hour standard is set at 9 parts per million.	Enhanced Automobile Inspection and Maintenance Program, Oxygenated Gasoline Program, transportation planning, travel reduction programs, residential burning controls, stationary source controls and pollution prevention programs, High Pollution Advisory Program.
PM2.5 Standards: • Annual mean standard must not exceed 15 micrograms per cubic meter averaged over three years. • 24-hour standard is 35 micrograms per cubic meter applied to the three-year average of the 98th percentile value. **PM10 Standards** • 24-hour standard of 150 micrograms per cubic meter cannot be exceeded more than once per year on average over three years	Diesel Emissions Control Program, street sanding and street sweeping improvements, transportation planning, Basic and Enhanced Automobile Inspection and Maintenance Programs, travel reduction programs, residential burning controls, stationary source controls and pollution prevention programs, High Pollution Advisory Program.
Eight-hour standard: An area will attain the standard when the 4th highest daily maximum 8-hour concentration, averaged over three years, is equal to or below 0.075 parts per million.	Enhanced Automobile Inspection and Maintenance programs, gasoline transfer controls, substitution of non-reactive hydrocarbons, solvent control and pollution prevention programs, stationary source controls and summertime Ozone Advisory Program.
Three state and federal sulfur dioxide standards exist. Each considers average concentration levels across specified time periods. An annual standard is set at 0.03 parts-per-million, a 24-hour standard is set at 0.14 ppm and a three-hour standard is set at 0.5 ppm.	Colorado Air Quality Control Commission regulations control sulfur dioxide emissions from industry.
The federal lead standard is averaged across rolling three-month time periods. During any three months, the lead concentration is not to exceed 0.15 micrograms per cubic meter. The state lead standard is averaged across one-month time periods and is not to exceed 1.5 micrograms per cubic meter.	Leaded gasoline phase out and stationary source controls.
The state standard for asbestos is set at 0.01 fibers per cubic centimeter or 70 structures per square millimeter depending on the measurement method.	Colorado Air Quality Control Commission Regulation No. 8 controls asbestos removal and abatement statewide.
The nitrogen dioxide standard averages concentration levels on an annual basis and allows up to 0.053 parts per million of nitrogen dioxide per year.	Colorado Air Quality Control Commission regulations control the emissions of oxides of nitrogen.
Approximately 20 federal and state standards exist and are control technology based.	Residential burning controls and state/local pollution prevention programs reduce the prevalence of hazardous air pollutants.

Colorado Air Quality Regulations

www.cdphe.state.co.us/ap/regoverview.html

Procedural Rules

The rules that the commission operates under for its regular monthly meetings and public hearings.

Ambient Air Quality Standards Regulation

This regulation establishes ambient air quality standards for the state of Colorado and dictates monitoring procedures and data handling protocols. It also defines nonattainment area boundaries for locations in the state which historically have violated federal and state air quality standards. In addition, the regulation contains the state's urban visibility standard and sets emission budgets for nonattainment areas.

State Implementation Plan Specific Regulation

This regulation defines specific requirements concerning air quality control strategies and contingency measures for nonattainment areas in the state.

Particles, Smoke, Carbon Monoxide and Sulfur Oxides

Regulation No. 1

Regulation No. 1 sets forth emission limitations, equipment requirements and work practices (abatement and control measures) intended to control the emissions of particles, smoke and sulfur oxides from new and existing stationary sources. Control measures specified in this regulation are designed to limit emissions into the atmosphere and thereby minimize the ambient concentrations of particles and sulfur oxides.

Odor Control

Regulation No. 2

Regulation No. 2 sets standards for allowable odor contaminants for different land-use areas in the state and outlines control measures that can be taken to bring violators into compliance.

Air Pollution Emission Notices-Permits

Regulation No. 3

Regulation No. 3 requires air pollution sources to file Air Pollution Emission Notices. It also requires that new or modified sources of air pollution – with certain exemptions – obtain preconstruction permits. Very large facilities also are required to obtain operating permits.

Woodburning Controls

Regulation No. 4

Regulation No. 4 requires new stove and fireplace inserts to meet federal certification in specified areas of the state.

New Source Performance Standards

Regulation No. 6

Regulation No. 6 sets standards of performance for specific new stationary sources in Colorado. The regulation is designed to bring new sources into compliance with the U.S. Environmental Protection Agency's New Source Performance Standards. In addition, the regulation sets standards for new industries that are unique to Colorado for which the EPA has not yet set standards.

Volatile Organic Compounds Control

Regulation No. 7

Regulation No. 7 controls the emissions of volatile organic compounds, primarily in the Denver-metro area. It sets standards and mandates controls for specific types of volatile organic compound sources.

Hazardous Air Pollutants Control

Regulation No. 8

Regulation No. 8 sets forth specific work practices, emission control requirements and standards for hazardous air pollutants.

Open Burning, Prescribed Fire and Permitting

Regulation No. 9

Regulation No. 9 applies to all open burning activities throughout the state to control smoke and emissions from such fires. The regulation sets forth requirements for permitting including prescribed fires, controlled burns and significant users of prescribed fires.

Transportation Conformity

Regulation No. 10

Regulation No. 10 defines the criteria the Colorado Air Quality Control Commission uses to evaluate the consistency between state air quality standards/objectives, and transportation planning and major construction activities across the state, as defined in state implementation plans.

Motor Vehicle Inspection Program

Regulation No. 11

Regulation No. 11 requires automobile emission inspection and maintenance programs to be implemented in specified areas of the state for gasoline-powered on-road vehicles. These programs apply to businesses, industry and the general public.

Diesel Vehicle Inspection Program

Regulation No. 12

Regulation No. 12 defines the state's diesel-powered vehicle emission inspection and maintenance program for on-road vehicles.

Oxygenated Fuels Program

Regulation No. 13

Regulation No. 13 requires the use of oxygenated fuels in gasoline-powered motor vehicles in Colorado's Automobile Inspection and Readjustment program areas, except Colorado Springs, from Nov. 1 through Feb. 7.

Chlorofluorocarbons

Regulation No. 15

Regulation No. 15 identifies the requirements to control emissions of ozone-depleting compounds from both stationary and mobile sources.

Street Sanding and Sweeping

Regulation No. 16

Regulation No. 16 sets specification standards for street sanding material and street sweeping practices in the Automobile Inspection and Readjustment program area, and the Denver-metro fine particle nonattainment area.

Acid Rain Control

Regulation No. 18

Regulation No. 18 sets forth the requirement for implementing the state's acid rain program. This program is adopted by reference from the federal program found in 40 C.F.R., Part 72 as in effect on Jan. 6, 1994.

Lead Based Paint

Regulation No. 19

Regulation No. 19 defines the requirements for certifying lead abatement professionals and work practice measures.

Stationary Sources and Indoor Environment Program Enforcement Update

Purpose

This portion of the report satisfies the requirements in section 25-7-105(5)(c), CRS, which requires the Colorado Air Quality Control Commission to prepare and make available to the public a report that includes a list of all alleged violations of emission control regulations, and show the status of control procedures in effect with respect to each such alleged violation.

A summary of enforcement statistics is provided on the following page.
For a full Enforcement Report for the Stationary Sources Program please see:

www.cdphe.state.co.us/ap/enforcerept.html

Enforcement Program

The Stationary Sources Program, including the Field Services Unit and the Oil and Gas Team, regulates stationary sources, including open burning and odors. The enforcement process can vary for each case, depending on the circumstances and time frame at issue. In general, the program has been focusing more on informal enforcement settlements in lieu of issuing notices of violation and compliance orders. Upon discovery of a violation in which enforcement action is recommended, the division will draft and send a compliance advisory (CA) to notify the source of these noncompliance issues. The CA includes a statement that the company should contact the division to discuss the noncompliance issues. Upon discussing the issue internally and with the company, unit staff will decide whether to dismiss the violation, issue a warning letter, proceed with informal settlement discussions or proceed with a formal enforcement action (issue a Notice of Violation). Most of the cases are settled prior to issuance of a Notice of Violation.

The Chlorofluorocarbon Unit enforces Regulation No. 15 concerning the control of chlorofluorocarbons. Most of the enforcement actions by this unit involve notification and certification requirements. As a result, the Chlorofluorocarbon Unit often sends out early settlement agreement offers and Compliance Advisories. It issues few Notices of Violation.

The Asbestos Unit regulates companies involved in the abatement of asbestos. Building owners and schools also are affected by asbestos control rules. In regulating schools, the Asbestos Unit issues Notices of Noncompliance (NONs) which require the school to take certain steps to come into compliance. Typically, if the school comes into compliance within the stated time period, the division does not require the school to pay a civil penalty. The Asbestos Unit is not legally required to, but typically does issue a Notice of Violation (NOV) at the onset of an enforcement action. After a Notice of Violation conference is held, the Asbestos Unit issues a warning letter, dismisses the action, attempts to reach an early settlement agreement in the form of a Compliance Order on Consent (COC), or issues a Compliance Order (CO).

Enforcement Statistics July 2008 - June 2009

Actions	Field Services Unit	Asbestos Unit	CFC Unit	Lead Unit
Warning Letters	25	24	9	2
Compliance Advisories	160	n/a	0	0
Notices of Violations	13	51	6	0
Notices of Noncompliance (schools only)	n/a	24	n/a	1
Compliance Orders	1	20	0	0
Compliance Orders on Consent	65	0	0	0
Early Settlement Agreements	89	0	1	1
AQCC Hearings	0	0	0	0
Referrals to Attorney Generals Office	0	3	0	0
Referrals to EPA	0	0	0	0

Glossary of Terms

Compliance Advisory (CA): The division issues these to provide timely notice to a facility of apparent violations found during an inspection. The division may or may not initiate a formal enforcement action, depending on the type of violation and the response of the facility.

Compliance Order (CO): If the division determines that a violation or noncompliance did occur after a notice of violation conference, it may issue a compliance order. The order includes the final determinations of the division regarding the violation or noncompliance, a summary of the proceedings at the notice of violation conference, and an evaluation of the evidence considered by the division in reaching its final determination of law.

Compliance Order on Consent (COC): A settlement agreement or express terms, mutually agreed upon in writing, between the recipient of an informal notice of noncompliance, notice of violation, or compliance order and the division, resolving the discovered noncompliance issues.

Noncompliance Penalty (NCP): A penalty assessed pursuant to § 25-7-115(5), C.R.S., to ensure a source does not reap the economic benefit of noncompliance with a federal requirement, as required under 42 U.S.C. § 7420.

Notice of Noncompliance (NON): Issued to a school and requires the school to take certain steps to come into compliance. If the school comes into compliance within the stated time period, the division does not require the school to pay a civil penalty.

Notice of Violation (NOV): Issued by the division to provide specific notice to a company of the provisions alleged to have been violated, and the division's factual basis and legal conclusions for the allegations.

Warning Letter: A written notification to a source that the division has documented a violation, that further recurrence could result in enforcement action being taken, but that no further enforcement action will result directly from the instant violation.

Regional contact information

Statewide

Colorado Air Quality Control Commission
(303) 692-3476
www.cdphe.state.co.us/op/aqcc

Colorado Air Pollution Control Division
(303) 692-3100
www.cdphe.state.co.us/ap
comments.apcd@state.co.us

U.S. Environmental Protection Agency
(303) 312-6312
www.epa.gov/region8/air/

Denver/North Front Range

Regional Air Quality Council
(303) 629-5450
www.raqc.org

Boulder County
(303) 441-1100
www.BoulderCountyAir.org

City of Denver
(303) 285-4053
www.denvergov.org/deh/

City of Fort Collins
Natural Resources Division
(970) 221-6600
www.fcgov.com/airquality/

City of Greeley
(970) 350-9783
www.greeleygov.com

Jefferson County Department of Health and Environment
(303) 271-5755
www.co.jefferson.co.us

Larimer County
(970) 498-6775
www.larimer.org

North Front Range Transportation and Air Quality Planning Council
(970) 221-6608
www.nfrmpo.org/

Tri-County Health Department
(Adams, Arapahoe and Douglas counties)
(303) 220-9200
www.tchd.org

Weld County
(970) 304-6415
www.co.weld.co.us/

Eastern High Plains

City of Lamar
(719) 336-4376
www.ci.lamar.co.us/

Southeastern Land and Environment
(719) 336-8988
www.prowerscounty.net/

Northeast Colorado Health Department
(970) 552-3741
www.nchd.org/

Pikes Peak

Pikes Peak Area Council of Governments
(719) 471-7080
www.ppacg.org

El Paso County
Department of Health and Environment
(719) 578-3137
www.elpasocountyhealth.org

Park County
(719) 836-2771
www.parkco.us/

Teller County
(719) 687-3048
www.co.teller.co.us/

South Central

Pueblo City-County Health Department
(719) 583-4323
www.co.pueblo.co.us/pcchd

Las Animas-Huerfano
District Health Department
Trinidad: (719) 846-2213
Walsenberg: (719) 738-2650
http://la-h-health.org/

Central Mountains

City of Aspen
(970) 920-5075
www.aspenpitkin.com

Chaffee County
(970) 539-2124
www.chaffeecounty.org

Clear Creek County
(303) 679-2335
www.co.clear-creek.co.us/

Eagle County
(970) 328-8755
www.eaglecounty.us/envHealth/

Fremont County and Cañon City
(719) 269-9011
www.canoncity.org

Gilpin County
(303) 582-5214
http://co.gilpin.co.us/

Gunnison County
(970) 641-4100
www.gunnisoncounty.org

Lake County
(719) 486-1796
www.co.lake.co.us

Pitkin County
(970) 920-5070
www.aspenpitkin.com

Routt County
(970) 879-0185
www.co.routt.co.us

Summit County
(970) 668-0727
www.co.summit.co.us/

Town of Vail
(970) 479-2138
www.vailgov.com/

San Luis Valley

City of Alamosa
719-589-2593
www.cityofalamosa.org

Southwest

Archuleta County
970-264-8300
www.archuletacounty.org/

Montezuma County
(970) 565-3056
www.co.montezuma.co.us

San Juan County
(970) 387-5766
www.sanjuancountycolorado.us/

Western Slope

Delta County
(970) 874-2165
www.deltacounty.com

Garfield County
(970) 945-2339
www.garfield-county.com

Mesa County
(970) 248-6960
www.health.mesacounty.us/environment

Moffat County and Rio Blanco County
(970) 824-2643
www.co.moffat.co.us

Montrose County
(970) 249-7755
www.co.montrose.co.us

San Miguel County
(970) 728-0447
www.sanmiguelcounty.org

Statutory requirement for public report

Colorado Revised Statutes, Title 25, Health

25-7-105. Duties of the Commission

(4)(a) The commission and the state board of health shall hold a public hearing during the month of October of each year in order to hear public comment on air pollution problems within the state, alleged sources of air pollution within the state, and the availability of practical remedies therefor; and at such time the technical secretary shall answer reasonable questions from the public concerning administration and enforcement of the various provisions of this article, as well as rules and regulation promulgated under the authority of this article.

(5) Prior to the hearing required under subsection (4) of this section, the commission shall prepare and make available to the public a report which shall contain the following specific information:

(a) A description of the pollution problem in each of the polluted areas of the state, described separately for each such area;

(b) To the extent possible, the identification of sources of air pollution in each separate area of the state, such as motor vehicles, industrial sources, and power-generating facilities;

(c) A list of all alleged violations of emission control regulations which shows the status of control procedures in effect with respect to each such alleged violation.

Colorado Department
of Public Health
and Environment