

Air

A Special Earth Day Series from the Reporter-Herald

Keeping ozone down

The EPA's new 8-hour air test shows some Colorado counties are failing

By **CHRISTINE STEELE**
REPORTER-HERALD STAFF WRITER

People often move to Colorado for the lifestyle.

Outdoor recreation, mountain vistas and clean, fresh air are what they expect.

But that is not always what they get.

Air quality in the region has its ups and downs.

In 2005, Larimer County and Loveland-Fort Collins made the American Lung Association's list of top 25 spots in the nation for air free of particulate matter — one of the three major pollutants in outdoor air.

But ozone, another pollutant, continues to be a major concern along the Front Range, particularly in the summer, said Lucinda Smith, an environmental planner with the city of Fort Collins.

Ozone is the primary ingredient in smog air pollution. It attacks lung tissue and damages crops and trees.

Symptoms include burning or stinging eyes and throat, chest pains, coughing and difficulty breathing.

Two measuring stations at Colorado State University take readings on particulates, carbon monoxide and ozone. Those

measurements are then recorded to monitor the region's air quality and determine whether it is in compliance with EPA standards.

"For particulate matter, we are under the standard, and for carbon monoxide, we are way under the standard," Smith said.

But ozone pollution has reached dangerous levels in the region, causing the county to receive a grade of "F" for ozone pollution in the American Lung Association's 2005 State of the Air report.

The failing grade was in part due to stricter standards put in place by the EPA in 2003 after studies showed that exposure to lower levels of ozone over longer periods of time was just as harmful as exposure to higher levels of ozone over shorter periods of time.

The new standards look at readings over an eight-hour period, as opposed to a one-hour period, and measurements must be under 80 parts per billion, explained Christopher Dann, public information officer with the state's air quality division.

The old standard was 120 parts per billion, Dann said.

Particulate matter is fairly easy to understand. It includes pollution that comes from particles in the air caused by vehicles, diesel engines, street sand, agriculture, construction and other dusty industries and smoke from forest fires and residential burning.

Particles released into the air contribute to haze in the atmosphere, cause problems with visibility and create breathing and respiratory problems when those particles become



Reporter-Herald/STEVE STONER

Doug Bjorlo, an environmental health specialist with the Larimer County Department of Health and Environment, explains how a PM-10 air sampler measures particulate matter in the air.

embedded in lung tissue.

Fine, or secondary, particles can also form when emissions from power plants, industries and vehicles are released and chemical reactions in the atmosphere occur. Those particles can wind up in the bloodstream.

But information about ozone often can be confusing. Ozone can help or hurt us, depending on where it's found.

"When the ozone layer is up 100,000 feet in the air, it is providing protection from the sun," explained Dann.

"But ozone down here, where we are breathing it, is a particularly nasty lung irritant."

Good up high, bad nearby, is the way to remember it, Dann said.

Ozone is not a pollutant that is emitted but is created.

Ozone is a gas that results when chemicals in vapors

SEE AIR, PAGE A2

10 things you can do to reduce Air Pollution

- 1) Maintain Your Vehicle.** Check air filters, tires and do a general tuneup.
- 2) Stop at the Click.** Topping off your gas tank releases gas fumes into the air and cancels the benefits of the pump's anti-pollution devices.
- 3) Refuel When It's Cool.** Ozone pollution needs heat and sunlight to form, so fill up during the evenings and cooler parts of the day. Using alternative fuels, such as biodiesel, further reduces vapors that contribute to ozone pollution.
- 4) Go Green When You Mow.** Use an electric or old-fashioned bladed push mower. If you must use a gas-powered mower or trimmer, use a newer model and do so in the evening.
- 5) Double Up.** Plan your shopping trips with others or do several errands at once. Studies show an engine pollutes up to five times more when it is started after sitting for more than an hour.
- 6) Bike or Hike.** Walk or ride a bike to do a few errands or get to work. May is National Bike Month, and the week of May 15 is Bike-to-Work Week, with Friday, May 19, Bike-to-Work Day.
- 7) Don't Idle.** If you are stopped at a train crossing, shut off your engine. Don't warm up your vehicle for more than a minute or two.
- 8) Keep a Lid on It.** Make sure lids on paint cans, cleaning solvents and other chemicals are well-capped.
- 9) Go Green When You Clean.** Use low VOC (volatile organic compound) paints, solvents and cleaners when able.
- 10) Convert.** Burning wood and trash are some of the largest sources of particle pollution. If you use a fireplace, convert to natural gas, which has far fewer emissions.

RH EARTH DAY SERIES

Monday: Reduce, Reuse, Recycle

Tuesday: The wild life

Wednesday: Water health and quality

Today: Renewable energy

Friday: Northern Colorado air quality

Saturday: The next generation of conservation

Visit our Web site, www.lovelandfyi.com, for extra features such as video and an interactive quiz.

By the Numbers

56 The percentage of pollution caused by motor vehicles.

40 The percentage of U.S. residents living in areas with unhealthy air.

30 The percentage of pollution that can be reduced by keeping a well-maintained vehicle.

26 The percentage of the U.S. population that lives in an area where particle pollution is a health risk.

12 The increased risk those who live in the most heavily polluted areas have of dying of lung cancer.

Reporter-Herald graphic/JENNY SPARKS, KATE WYMAN