



REGIONAL AIR QUALITY COUNCIL

# 2004 Ozone Season Facts & Figures

## Ozone Formation



Ozone is formed when emissions from everyday items – such as local industry, gasoline-powered vehicles and lawn equipment, and household paints, stains, and solvents – combine with other pollutants in the atmosphere under heat and sunlight. Ozone is most likely to form during the summer months on long, hot, still days.



## Health Impacts

In the stratosphere, miles above the earth, ozone provides a beneficial “umbrella” to protect life from harmful solar rays. However, at ground level, ozone is harmful to breathe in high concentrations.

The elderly, young children, and those with pre-existing respiratory infections are particularly at risk from exposure to ground-level ozone, but even healthy adults who spend a lot of time working or exercising outdoors may be affected by high ozone levels. Symptoms of ozone exposure include stinging eyes and throat, chest pains, coughing, and breathing difficulty.

## Causes



On-road sources account for 27 percent of VOC emissions in the area. Another 27 percent is caused by flash emissions, 20 percent from area sources (such as lawn and garden equipment), 14 percent from non-road sources, and the remaining 12 percent from point sources (such as household paints and solvents).



## Status of Metro Denver Area

On October 11, 2001 the U.S. Environmental Protection Agency (EPA) re-designated the metro Denver region as an attainment area for the federal 1-hour ozone standard. The metro area has not violated the 1-hour standard since 1988.

During the summer of 2003, the metro area violated the new 8-hour standard at three area monitors. In April 2004, EPA implemented its new, more stringent 8-hour ozone standard and designated the region as a nonattainment area for ozone. Local and state agencies are now working with EPA on a plan to make sure the region meets the standard by 2007, in exchange for a deferment on the nonattainment designation.

## Simple Solutions



Simple, voluntary measures – like those listed on the back of this sheet – suggest ways individuals can minimize ozone pollution. They are particularly important on days that the Regional Air Quality Council (RAQC) announces an Air Quality Action Alert.

Between June 1 and August 31, the RAQC will work with meteorologists from the Colorado Department of Public Health and Environment (CDPHE) to issue daily advisories that will indicate whether 8-hour ozone levels are elevated (above 75 ppb). The RAQC will issue advisories to the media, local governments, businesses, and citizens by 4:00 p.m. each day. The advisories will encourage citizens to reduce ozone-causing activities until ozone levels fall.



# Voluntary Actions

## On the Go...

- ' Keep your car tuned up – a well-maintained vehicle pollutes much less
- ' "Stop at the Click" – do not overfill your gas tank when refueling
- ' Refuel in the evening, after 5 p.m.
- ' Turn your gas cap until it clicks three times
- ' Do not idle more than 30 seconds – turn off your car while waiting in long lines
- ' Keep tires properly inflated
- ' Park in the shade to reduce fuel evaporation from the gas tank
- ' Reduce driving or carpool or take public transportation whenever possible

**Your actions make a difference!** By taking simple, voluntary actions during the summer - whether on the go, around the yard, or at home - you can directly stop ozone pollution from forming. Follow these simple ozone-reduction steps so we can all breathe easier.

## Around the Yard...

- ' Use electric or manual lawn equipment or use gas-powered models manufactured after 1999
- ' Maintain gas-powered lawn equipment by changing the air filter, oil, and corroded spark plugs each season
- ' Keep the mower underdeck free of grass build-up
- ' Use a funnel to refuel equipment and avoid even small spills and drips
- ' Mow in the evening, after 5 p.m., and not at all on ozone action days
- ' Use an electric barbecue starter or charcoal chimney instead of lighter fluid

## At Home...

- ' Use water-based paints, stains, and sealants
- ' Save solvent-based painting and stripping projects for Spring or Fall
- ' Use paint brushes and rollers instead of spray paints
- ' Tightly cap all solvents (gasoline, paint thinners, strippers, degreasers) and store in a cool place
- ' Avoid using household solvents on ozone action days

