

## A Fragile Crust is Enough to Keep Dust Down

Even though we live in the desert, we should not expect to have dust in the air we breathe. The soils of undisturbed desert land naturally bind together forming a crust, called *desert pavement*. Although the *pavement* is fragile, it resists wind and helps prevent dust particles from becoming airborne.

However, when the crust is broken, small particles can get into the air during the activity, or later during high wind events. Airborne dust, or particle pollution, causes significant problems with human health and the environment, and should be minimized.

### What could happen if we don't control airborne dust?

In 1999, Pima County violated the Environmental Protection Agency's national air quality health standards for particle pollution. Currently, we are maintaining the air quality standards under new Pima County rules and regulations.

Besides harming human health, if we do not continue to control airborne dust, we will have more stringent federal rules, more costly fines, and may possibly lose federal monies for transportation projects.

**Do Your Part For Healthy Air.  
Keep Dust Down.**

## Who is responsible for airborne dust?

Although the Pima County Department of Environmental Quality regulates the quality of our air, it is the responsibility of business, industry, and individuals to ensure that dust stays on the ground, and not in the air.



### For Pima County Dust Rules, Complaints, or Air Information:

#### Pima County Department of Environmental Quality

150 W. Congress Street  
Tucson, AZ 85701  
520.740.3340 • Fax: 520.882.7709  
[www.deq.pima.gov](http://www.deq.pima.gov)  
[www.AirInfoNow.org](http://www.AirInfoNow.org)

#### Pima County Board of Supervisors

Ann Day, Supervisor, District 1  
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Sharon Bronson, Supervisor, District 3  
Ray Carroll, Supervisor, District 4  
Richard Elías, Supervisor, District 5

#### County Administrator

C.H. Huckelberry

*Sources of information for this brochure include the Environmental Protection Agency and American Lung Association.*



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# Airborne Dust and Your Health

**We live in the desert.  
Should we expect dust  
to be in the air?**

# Dust Control Issues

## What is airborne dust?

Airborne dust is particle, or Particulate Matter (PM), pollution, and is one of the most significant air pollutants in Pima County. PM is made up of tiny solid particles or liquid droplets (a fraction of the thickness of a human hair) that float in the air we breathe. Because they are so small, you cannot see individual particles, but you can sometimes see the haze that is formed when millions of particles blur the spread of sunlight.

## Where does airborne dust come from?

Any type of earth-moving activity or combustion can produce excessive amounts of particles in the air, whether it be from businesses, industry, or individuals. Sources include:

- Disturbed vacant or open lands
- Construction and mining activity
- Landscaping maintenance activity
- Industrial sources
- Fires: fireplace, camp, forest
- Charcoal or wood-burning barbecues
- Off-road vehicle activity
- Unpaved and paved roads, parking lots
- Diesel exhaust
- Agricultural activity

## Why should I be concerned about airborne dust?

Particles can be so small that they pass through the nasal passage and travel to the deepest parts of the lungs and cause damage. To compound the problem, toxic and cancer-causing chemicals can attach themselves to PM yielding much more profound effects. The tiniest of particles can even pass into the bloodstream through the lungs.

People most at risk from breathing particle pollution are children, the elderly, and people with respiratory or heart disease. Healthy people can be affected as well, especially outdoor exercisers. Effects of breathing PM for hours, days, or years include:

- Breathing difficulties
- Respiratory pain
- Diminished lung function
- Weakened immune systems
- Increased hospitalization
- Increased absenteeism at school/work
- Increased severity of acute bronchitis, pneumonia, asthma, and emphysema
- Heart attacks and strokes
- Premature death (1-8 years)

Airborne particulates can also reduce visibility which can be hazardous while driving, and interferes with views.



## Simple Solutions to Help Clear the Air

There are many methods that may be used to control airborne dust. Common solutions for different sources include:

### Individuals

- Limit fireplace and campfire use
- Use propane instead of charcoal barbecue grills
- Drive slowly on dirt roads
- Use alternative-fueled vehicle

### Off-Road Vehicles

- Drive slowly on dirt roads
- Stay on existing roads or trails
- Avoid silty, or powdery soils
- Keep from riding in residential areas

### Open/Vacant Land

- Prevent motor vehicle trespassing
- Plant native drought-tolerant vegetation

### Construction/Mining

- Water at sufficient quantity, frequency, and depth before, during, after activity
- Prevent trackout of dirt or mud onto paved roads
- Cover haul materials

### Landscape Maintenance

- Use manual brooms or electric vacuum blowers instead of gas-powered leaf blowers

**Take Action Now!**

**Keep the Air Healthy to Breathe.**