You may ask yourself “how does this affect me”? When the warm air layer traps the cool air layer below, pollutants such as Volatile Organic Compounds (VOCs), ozone, & particulate matter (PM2.5 & PM10) have nowhere to go. [2] This leads to health problems associated with breathing.

The winter season is here bringing a cool breathe of fresh air. With the holidays coming up brings a multitude of festivities all across the great state of Arizona.

The holidays are a popular time of the year for travelling. With the weather getting colder by the day there are a few things you need to know and be aware of this season.

Imagine standing outside your home on a clear sunny day and a calm breeze is brushing against your face. A phenomenon known as a temperature inversion is likely occurring right above your head.

It is when a warm layer of warm air traps a cool layer of air below close to the ground. [1]

Air Quality Index

The Air Quality index is a measurement certain air pollutants that include ozone and particulate matter (PM2.5 & PM10)

A good resource to use is Pinal County’s Air Quality Page found here. [3]
Health Effects

Increased air pollution is a problem for everyone, but more so to those who may have respiratory issues.

The colder weather also affects our breathing because of the cooling and drying effect particularly those with Asthma. [4]

Looking at the Air Quality Index, a value of 101 or more may be an issue for those who have trouble with breathing (i.e. asthmatics).

The Air Quality Index values range from 0 to 300+. Check out the link below to learn more. https://www.airnow.gov/air-quality-index/

How to Breathe Easier

Here are some ways that could help you breathe easier and reduce your exposure to air pollutants.

Change part or whole work schedule to work from home if possible.

Stay informed by looking at today’s Air Quality Index to take precautions by reducing your time outside, take fewer trips by car, and avoid burning vegetation, and other material. [5]

Wintertime smog is a severe air quality issue affecting urban regions around the world. (NOAA)
Travel Reduction

Some of you may think “what can I do to help”? There are many ways you can help make the air safer and easier to breathe.

One of the best is to reduce air pollution by travelling less in our own vehicles. Vehicles emissions release pollutants such as ozone, carbon monoxide, nitrous oxides, among many others.

Combining errands such as shopping, meeting with friends, picking up the kids could greatly reduce air pollution as well as wear and tear on your car.

- Other ways to reduce vehicle emissions is to reduce idling your car.
- Maintain all your vehicles by getting checked on a consistent basis.
- When shopping online, combine your order into one delivery and be flexible with longer shipping times. [6]

Vehicle Tax Credit

Did you know that you get a tax credit up to $7,500 for certain plug-in hybrid and electric vehicles. Find out if your vehicles qualifies in the link here. [7]

Green Thumb

A great way everyone could improve air quality would be to grow more plants around our community.

It also adds to the landscape aesthetics which we can all enjoy when we go outside.

The Blue Palo Verde Tree is the state tree of Arizona. The Palo Verde does well in the hot Arizona sun and does not need a lot of water. It is also popular with bees once its vibrant yellow flowers bloom in late spring. [8]
Green Thumb Pt. 2

Another tree well suited in the Arizona desert is the Desert Willow.

According the United States Forest Service, the Desert Willow is not a true willow. The Desert Willow is a low maintenance plant and does not require much water, but does enjoy a nice drink once in a while.

The Desert Willow produces beautiful white flowers with a subtle tinge of violet. Though the color range from a pure white to a vibrant violet. [9]

Sources

1. https://research.noaa.gov/article/ArtMID/587/ArticleID/2450/A-New-View-of-Wintertime-Air-Pollution


3. Air Quality Report - Pinal County (pinalcountyaz.gov)

4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6031646/

5. https://www3.epa.gov/region1/airquality/reducepollution.html


