Citizens for CLEAN AIR

March, 2020 Update

www.citizensforcleanair.org
PO Box 101, Grand Junction, CO 81502

Desperate Times Call for Common Sense Measures—Open Burning

Many of us are over 60, the high risk group for COVID-19. Others have underlying health issues that make us even more vulnerable. Some are practicing self-quarantine. Hopefully each of us is using social distancing if and when we need to go out. Fortunately, outdoor walks provide a safe and healthy activity. And fortunately, the Grand Valley has been blessed with mostly good air quality this spring; imagine how we would feel if it were January and we were experiencing a polluted inversion that kept us indoors!

A cog in the wheel of these beautiful spring days is outdoor burning. Thus it was a relief when the health department put a no-burn advisory in place for Mesa County during the COVID-19 emergency. The advisory is for all residential burning (less than one acre), but does not include agriculture. Instead, the health department is asking farmers to consider the impacts of their actions on their neighbors.

View of the valley from the "water tank" property on the Redlands, March 17, 2020.
Photo: Chuck McDaniel

How this voluntary measure changes behaviors remains to be seen. On a recent walk I saw the revelatory smoke signal looming over the valley. At the time of this writing, there are 4 cases of Covid-19 in Mesa County with more testing results likely to show an increase. As the challenge grows, the health department should put an advisory into effect for all outdoor burning, including agricultural operations and ditches. Asking our agricultural community to stop burning fields, tree cuttings and ditches seems like common sense during the pandemic.

Change doesn't often come without sacrifice. Other area businesses and residents are being forced to adapt; why not farmers? People living within the affected area of the open burning sites will be breathing smoke, plain and simple. Some may even suffer devastating consequences. There are healthier alternatives to burning; why is it too much to ask local farmers to start using them? *Karen Sjoberg*

Contributors to the Ozone Initiative include, L to R: Chris Herrman & David Miller, Western Colorado Community Foundation; Karen Sjoberg, CCA; Adrian Dybwad, PurpleAir LLC, James Ayers, CMU Asso. Prof. of Chemistry; Jerry Nelson, PhD., CCA

CCA Public Forum—Ozone 101

Thank you to all who came out for our annual event last February! The presenters were excellent. The forum was an opportunity to thank those individuals and organizations that are participating in the Citizens Ozone Initiative, some of them pictured in the photo, left.

CCA member, Steve Morrall, sums up his forum presentation below with some basics on ozone. *Steve has his PhD in analytical chemistry.*

Ozone is an atmospheric gas made of three oxygen atoms. It is a rare gas with about one ozone molecule for every three million air molecules. In contrast the common oxygen molecule that supports life has two oxygen atoms and makes up about 20% of our air. Ozone is naturally occurring, but human activity is the primary controller of ozone concentrations in our atmosphere. In the upper atmosphere (stratosphere) ozone forms a protective layer that blocks UV radiation from the sun. Without this protective ozone layer life on earth would be very difficult if not impossible. However, at ground level ozone is a pollutant that can negatively impact our health.

Ozone at ground level is a problem because the molecule is very reactive and will oxidize organic matter, such as our lung tissue when we breath it. The chemistry to form ozone is very complex but there are several ingredients needed that are produced by human activity. Combustion products (carbon monoxide, nitrogen oxides) and volatile organic compounds (VOC, methane) are the precursors that react when initiated by UV light to form ozone. The reactions are very fast and ozone is formed rapidly when the conditions are right. The main combustion sources that contribute to ground level ozone formation are gasoline engines, fires, and fossil fuel-burning power plants. Volatile organic compounds that contribute to ground level ozone come from oil, gas and coal operations, from extraction to end use, organic solvents and trees. Areas of the country that have sunlight, dense automobile traffic, and/or active fossil fuel industries frequently have ground level ozone concentrations that exceed our health standards.

"I have the whole universe to look after, so I'm putting you in charge of this planet."

Citizens Ozone Monitoring Initiative – Status

Our initiative collaborators tested the new ozone monitors for six months before intrepid CCA members began installing them in January. The installed units each contain a particulates monitor, ozone, and VOC sensors. (VOC data is not yet reliable.) There are now six units – "Tri-sensors" – collecting real time data from the northwest, central, eastern and southern areas of Mesa County. This data, can be viewed on a map similar to the PurpleAir map currently available for particulate counts. If you would like the link to the ozone map, contact CCA and we'll send it to you!

Film Festival Plans Canceled

The CCA Board has suspended plans for the October Wild and Scenic Film Festival due to the COVID-19 crisis. This event started out in California with the South Yuba River Citizens League as a way to raise funds to preserve and restore the South Yuba River, and has spread across the country with over 200 cities hosting the event as fundraisers for various environmental causes. It features environmental films from around the world and is a very inspiring event for many communities. We hope we can sponsor this event some other time. *Kristin Winn, CCA*