

 **Spotlight on Climate**

## Are we seeing Climate Disasters in Northern Arizona?

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(710 words)

We now see headlines about global climate disasters every day. Here are a few examples just in the last two weeks: “Heavy rains and landslides leave dozens dead in Brazil.” “India heatwaves threaten maternal and baby health.” “South Korea: Wildfire triggers mass evacuation.” “Severe drought threatens food security in India.” So, is it just the rest of the world suffering from climate change, or are we feeling the effects here too?

Certainly, our average temperature is up, just like it is in the rest of the world. In Flagstaff, it is primarily the low temperatures of winter that we have lost, and, of course, this affects our snow and ski season. But we are also seeing higher summer temperatures, and people are considering whether to install heat pumps for cooling on the hottest days. We’re not yet seeing the temperature extremes of Phoenix, where people are desperate to escape heat of 110 to 120°F. But we are ‘feeling the heat’ as folks in Central Arizona buy second homes in Flagstaff or escape for the weekend to saturate our cooler AirBnB market. Those trends affect our housing availability and drive up home prices. **Is that a “climate disaster”?** Well, it is if you ask someone trying to buy a home or rent an apartment in time for Fall semester.

Wildfires are becoming more frequent and more intense throughout the Western US and across every continent except Antarctica. Our fire risk in Flagstaff is heading through the roof, so to speak, as temperatures rise. Our forests have dried out due to variable rainfall and higher evaporative loss, as hotter air temperatures and winds whisk away the moisture. **Is this a “climate disaster”?** Just ask the folks in the Timberline, Fernwood, Lenox Park, Girls Ranch Road, Wupatki Estates and Antelope Hills neighborhoods. Because of the Tunnel, Pipeline, and Haywire fires, folks there had to evacuate, some twice, and many completely lost their homes. Or ask the folks in the neighborhoods by the Schultz Fire, the Museum Fire, the Rafael Fire, the Railroad Fire, the Crooks Fire, the Mangum Fire, the Spur Fire, the Slide Fire, the Yarnell Fire and the Wallow Fire.

Monsoon downpour events have also gotten more intense. As we put more heat energy into our atmosphere, its ability to carry water also increases. Last summer we saw many massive downpours. One of these was estimated to be a 200-year event, and another, a 400-year event. In the University Heights neighborhood, we had a downpour that was so intense that in 1½ hours we suddenly had a lake between our house and our neighbor’s. The water in this ‘lake’ came only from what fell on our two roofs. Of course, our never-before-seen lake was nothing compared to what people saw in other neighborhoods. Other neighborhoods saw cars floating down the streets. **Was this a “climate disaster”?** Just ask the folks who had to shell out for cleanup and repairs in the Grandview, Mount Elden Estates, Sunnyside, Fort Valley, and many neighborhoods along the Rio de Flag.

Heat, variable rainfall, and winds are also affecting our rangelands and wildlife habitats all across northern Arizona. A 2018 study by Iric Burden, then Rangeland Management Specialist for the Natural Resources Conservation Service, documented greater than 80% reduction in growth of rangeland plants across 1.2 million acres in Coconino, Navajo, and Apache counties. This study also showed 50 to 80% reduced growth across an additional 2.7 million acres. When asked how climate change affected ranchers, the late Jim Babbitt said, “Ranch managers in our family business tell me that we now have strong winds every fall. We didn’t have those 20 years ago, and these fall winds are hard on the range grasses and shrubs. We now have to haul more feed and water for our cattle every fall and every winter.”

Not only cattle, but many wildlife species, depend on springs and creeks for water. It is not surprising that many springs are going dry, and streamflow is getting more seasonal. Watering “tanks” are drying up faster because of less rainfall input, and because higher temperatures cause more evaporative loss. **Is this a “climate disaster”?** Just ask the deer and bobcats. Ask the coyotes and coatimundis. Ask the wild horses and ask the ranchers.

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