



Opinion: Wildfires threaten our water supply; plastics make the threat worse

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Brita Horn

For Steamboat Pilot & Today

Wildfires are an unfortunate fact of life in Colorado. And as the past few seasons have demonstrated, the threat seems more likely to grow in years to come than it is to recede. As we reckon with this threat, we must do so with a clear understanding of the full scope facing our state.

The damage, disruption and distress caused by wildfires that can burn as many as 100,000 or even 200,000 acres at a time are difficult to overstate. Suppression costs alone ran over \$200 million during last year's particularly brutal wildfire season, and tens of thousands of Coloradans were displaced due to either evacuation or the loss of homes. Tragically, some even lost their lives.

No matter how thoughtful we are about land and forestry management, wildfires will always present a threat. As a fire chief of a rural volunteer fire department, I'm immensely proud of the dangerous but rewarding work Colorado's fire crews do to keep our communities safe in the face of this reality. I'm also acutely aware of less obvious threats related to wildfires.

For instance, wildfires wreak havoc on water supply in both short- and long-term ways, and we must keep this serious risk front of mind as we consider ways to secure the infrastructure that delivers this basic human necessity.

Power outages can knock water treatment facilities offline. Fires can make facilities inaccessible. Runoff from burned areas, for one, contains ash that can lead to long-term alteration of the chemistry of lakes, wetlands and reservoirs. Changes in snowmelt can upset the balance in reservoirs.

Cheaper, weaker pipes that cannot withstand the pressure can rupture, causing pollutants from the soil to seep into the water supply. And when the plastic components of a water system like meters and valves burn and melt, as they very quickly do, harmful chemicals can make their way into the water. Short-term exposure to such substances causes things like dizziness, while longer-term exposure can cause more serious conditions like anemia or even leukemia.

The contamination caused by burning plastics is particularly concerning given the recent moves by some utilities in fire-prone areas to replace standard water lines with PVC and other plastic pipes.

As I can attest from years of firsthand experience as a firefighter, water pipes that cannot withstand tough conditions can backfire when they are unable to deliver water at a moment's notice. And when a wildfire is raging, plastic-based water lines cannot guarantee protection from the heat.

A melted PVC pipe does more than just interrupt service. It releases chemicals into the water supply. A pair of wildfires in California in 2017 and 2018 both resulted in some of the first documented and confirmed occurrences of drinking water contamination following a wildfire. While other factors may have contributed, researchers from Purdue University studied these fires — the Tubbs and Camp fires — and found that in both cases where benzene contaminated the water system, plastic pipes were present in the local water infrastructure.

Firefighters will continue to work hard to protect Coloradans from wildfires. When they strike, we'll be there to contain them. In the meantime, it's important that we consider the full spectrum of the impacts these fires can have on our communities and factor those impacts into the way we plan today and for the future.

Hopefully, both parties can come together to fix this problem. In Colorado, liberal Morgan Carroll and conservative Steve King saw a need and worked to provide air tankers to fight forest fires. We need such cooperation now on the use of PVC pipes.

We can pick up and build upon the long-overdue modernization of our forest management practices that President Donald Trump pushed for before leaving office. President Trump understood, as should everyone involved in protecting the public, that proper forest management practices are a major factor in the scourge of forest fires that our state and country have faced in recent years. Proper forest

management practices would include not using pipes that melt. That is just plain old common sense.

My hope is that our lawmakers from both parties will agree that the materials used to update critical infrastructure like our water systems are safe, resilient and future-proof. PVC or plastic pipes may be flexible and could work for some use cases, but in the face of a growing wildfire threat, PVC is not the right choice for our water supply.

Brita Horn is a fire chief for a rural volunteer fire department in Colorado, former Routt County treasurer and author of "Drinking From a Fire Hose: Five Essential Tools to Not Get Soaked."

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