

Continued extreme weather and Trump's federal layoffs may leave North Carolina's National Forests in a vulnerable position for the future.

On March 27, 2025, the U.S Forest Service issued the closure of the Shining Rock Wilderness area on the Pisgah National Forest due to the spread of wildfires. This comes a week after issuing a warning which restricted all open burnings, including open fires, campfires and stove fires, in North Carolina's four national parks, again, due to wildfires.

This happens amid crews that are still cleaning up debris from when Hurricane Helene passed through Western Carolina. Many areas are still temporarily closed. Trails are open, but visitors are advised to use caution. With the federal layoffs that occurred in February, one is left to wonder what the impact climate change has on the extreme weather we're experiencing, and what it means for the future of our national forests.

"Extreme weather is on the rise as global surface and sea temperatures are currently on the rise," said Larianna Collins, an assistant teaching professor for geography and environmental studies in the department of earth, environmental and geographical sciences at UNC Charlotte.

"Our national forests...face massive flooding from more tropical cyclone activity travelling inland. This increase in flooding can lead to landslides and large areas of fallen trees. The domino effect then continues as this dead organic material acts as fuel in seasons...with little humidity in the atmosphere, increasing drought and high winds across the region," Collins said. Along with flooding, our national forests can expect more wildfires. The regions that see wildfires now will be more prone to landslides in the future due a decrease in vegetation that maintains soil cohesion, according to Collins.

Jack Scheff, an associate professor in the same department, describes how climate change is an "enhancer" of weather. Warmer weather allows for the air to hold more water vapor. When it rains, we receive heavier rainfall — like with Helene. At the same time, it is also increasing the time in between rainfalls. The warmer temperature will make the air dryer, which produces the conditions in which wildfires can thrive. Understanding how climate change works can help us understand its impacts. Global warming and climate change have many well-studied impacts on forests, including increased susceptibility to wildfires, changing water stress from changes in moisture patterns and exposure to more frequent destructive weather events, according to Brian Magi, an associate professor of atmospheric sciences in the same department. The long and short term impacts of global warming on forests strongly depend on where the forest is, however as fires continue to rage through our national forests, we can imagine a disastrous future.

Collins recommends that next action is to clear vegetation that are acting as fuel for wildfires in the region, but federal layoffs, which terminated 17 North Carolina National Forests employees, may have left our national forests understaffed. As floods and fires continue to threaten our national forests, their futures lie in the hands of local organizations and volunteers.