

Panel: Tahoe snowfall a casualty of climate change



Noah Diffenbaugh, a professor at Stanford University, talks climate change Jan. 23 at Harveys. Photo/Terra Breeden

By Terra Breeden

STATELINE – In Lake Tahoe, warm weather patterns are affecting snow levels. A panel of weather experts pointed out the difference between the snowfall in 2017 and current snow conditions as an example of extreme weather events.

“When you have snow in November last year and now it’s January and there’s no snow, you can call that extreme weather,” meteorologist and CNN weather supervisor Brandon Miller said.

Miller is one of several people in town this week for Operation Sierra Storm, a national weather conference. In part the participants are addressing global climate change and the growing occurrence of extreme weather events, like the recent California drought.

The conference on Jan. 23 was led by keynote speaker Noah Diffenbaugh, a geoscientist and professor of earth system science at Stanford University, and included a panel of renowned meteorologists from U.S. news sources.

One of the reasons for having the conference in Lake Tahoe is to discuss how global warming is affecting snowfall conditions and how extreme weather events contribute to visitation and the economy of the community. National trends in climate change were addressed as well.

“The National Weather Service asserts that climate change is happening, and it is caused by mankind. The question we cover is what does that mean for the future,” Paul Goodloe, a TV meteorologist for the Weather Channel said.

Goodloe, who covered the winter storm in Tahoe last week for the Weather Channel, said that the heavy rain and lack of snow was caused by a warm tropical air mass at 8,000 feet. He asserted that as global warming continues, weather will be prone to “wild swings” in California at high elevations, as seen in the substantial difference between last year’s snowfall and this year’s.

“This is the type of pattern caused by climate change,” he said. “You start to see snow levels at higher feet and more drought in California.”

Goodloe pointed to Louisiana towns currently being threatened by rising seawater and major storm events in Alaska and North Dakota as other instances of extreme weather caused by global warming.

“Eventually, it’s going to mean relocating people from their native land,” Goodloe said.

Diffenbaugh began his presentation at Harveys by pointing out that humans are altering the chemistry of the atmosphere and ocean by emitting greenhouse gases.

“As scientists we know this because we can measure it,” he said. “Altering carbon dioxide levels alters the Earth’s temperature.”

2017 was the second warmest year on record, with 2016 being the warmest. Scientific research taken from different studies points to humans as the cause.

Diffenbaugh lives in California and has studied the California drought extensively. Although droughts do happen naturally in the state, research shows that drought occurrences have doubled in California in the last century. Diffenbaugh believes that the extreme weather related to the last drought was caused by global warming.

“The California drought was a severe event for the state’s economy. It also killed over 100 million trees and led to the wildfires we’ve experienced,” he said.

Warmer temperatures and less precipitation means less water in California. Diffenbaugh noted that we can expect warmer weather patterns and events as global temperatures rise. This could mean warmer winters and less snow in Tahoe.

“We are getting to the point where every year is a warm year,” he said. “If we look to the future, what we find when we look at climate change models for California is that the likelihood of another warm year is 100 percent.”

It seems as if extreme weather events like the California drought will become the “new normal” as global temperatures rise. Although there are still people who deny the existence of climate change, many people now consider global warming an impending threat.

“Polls tell us that people trust scientists more than politicians,” Angela Fritz, meteorologist and deputy editor of the *Washington Post*, said. “They know that climate change is happening and that they have to make changes to accommodate

it.”

Over the years, public opinion has shifted on global warming, going from outright denial to a widely accepted fact, which has made climate change easier for journalists to cover. However, 10-15 years ago, it wasn't that way.

Miller shared a personal anecdote about how he had a conservative upbringing and denied the existence of climate change for many years. Even as a young meteorologist, when he witnessed the growing number of extreme weather events such as storms and floods, he didn't accept that the events were caused by climate change. It took years of seeing weather patterns grow warmer for him to believe in climate change.

Miller's story related to the current White House administration's climate change denial, which all the panelists agreed would not affect the progress the U.S. has made to adapt to and moderate global warming.

“The administration can do as much as they want to unravel the progress we've made in the last decade, but industries and the public are already on the same page,” Fritz said. “They're going to do what's in their and everyone else's best interest.”

To demonstrate how industries are already adapting to climate change., Goodloe showed a short video about an automobile manufacturing plant in Ohio that is harnessing wind energy as a source of renewable power.

The panelists also addressed the U.S. withdrawal from the Paris Agreement, an agreement within the United Nations to aggressively curb greenhouse gas emissions and limit global warming by 2 degrees Celsius. The meteorologists admitted that the U.S. withdrawal created a setback for climate change, especially when America is the second largest contributor of greenhouse gases in the world.

However, the panelists pointed to states like California that continue to honor the Paris Agreement despite the decisions made by national leaders.

“California is setting the standard and it will be a leader and trend-setter for the nation,” Goodloe said.