

Oral Testimony of Dr. Michael Medler
Member, Firefighters United for Safety, Ethics, and Ecology
President-Elect, The Association for Fire Ecology
Associate Professor, Department of Environmental Studies,
Huxley College, Western Washington University
before the Hearing on "Wildfires and the Climate Crisis"
Select Committee on Energy Independence and Global Warming
U.S. House of Representatives, Washington, D.C.
November 1, 2007

Chairman Markey, ranking member Sensenbrenner, and members of the Committee, I want to thank you for this opportunity to testify on climate change and fire management. My name is Michael Medler, and I am an associate professor of Environmental Studies at Western Washington University, and the president-elect of The Association for Fire Ecology (AFE), and a member of Firefighters United for Safety, Ethics, and Ecology (FUSEE).

I worked as a firefighter for the Forest Service in the 1980s, and really cut my teeth fighting the Yellowstone fires in 1988. Although it has been awhile since I cut fireline, several of our members in AFE and FUSEE are currently serving on the firelines in Southern California, and I would like to talk about some of our shared concerns about changes in fire behavior resulting from climate change.

FIRE BEHAVIOR IS CHANGING

In Yellowstone, in 1988, the grizzled old firedogs told us that we would never see fire behavior like that again, because they never had. Now, Most summers bring us new record-breaking fires and fire seasons, and the fires we call big today can be ten times the size of the big fires 20 years ago.

On the firelines, it is clear that global warming is changing fire behavior, and creating bigger and more severe fires. I am sure you have followed many news stories about record setting fires. But this isn't just in the news, many firefighters we know have commented that they are facing more extreme fire behavior than they have ever witnessed, and among fire scientists there is broad consensus that these changes in fire frequency, size, and severity will continue to occur as climate continues to change.

WEATHER DOES DRIVE THESE LARGE WILDFIRE EVENTS

We are experiencing weather phenomena that are unprecedented in the historical record. Because of these changing patterns the average wildfire season in the West is now 78 days longer, than in 1987 and periods of high fire danger are occurring earlier in the summer. This is taxing the endurance of firefighting crews and draining the budgets of land management agencies.

BECAUSE OF THIS UNPRECEDENTED BEHAVIOR, FIREFIGHTERS HAVE BEEN FORCED TO CHANGE STRATEGY AND TACTICS.

"Perimeter control" and its tactics of "anchor, flank, and hold" have been almost futile in recent megafires. Firefighters in the Northern Rockies had to give up aggressively fighting fires because it was extremely unsafe and almost completely ineffective. Instead, they adopted a strategy of "indirect attack" and "point protection" to make sure individual homes and communities were protected, and they were forced to light large backfires that also burned with high severity.

MEANWHILE COMMUNITIES ARE SPRAWLING INTO HIGH DANGER AREAS

With severe weather conditions, firefighters are often unable to stop fire from spreading into vulnerable communities. Unfortunately, development patterns, and the design of homes, rarely consider wildland fire, and this is putting both homeowners and firefighters in harm's way. Firefighters are rightly becoming unwilling to risk their lives to protect individual homes that are located in absurdly indefensible locations like the top of narrow "chimney" canyons, or are built with highly combustible materials, or they are completely surrounded by dense flammable vegetation.

THERE ARE TWO KINDS OF FIRE REQUIREING TWO SETS OF FIRE POLICIES

Fire management policies need to distinguish between backcountry wildlands, many of which are comprised of fire-adapted ecosystems, and frontcountry communities with built environments, many of which are largely unprepared for wildfire. Conflating wildland fire with urban fire will lead to inappropriate forest management and ineffective community protection policies. Stated simply, if our homes and communities were far more fire resistant, we would have fire as a tool rather than an enemy in the backcountry. Ecological restoration programs could carefully reintroduce fire through prescribed burning and wildland fire use. However, some of my colleagues speculate that we have perhaps a ten-year window to reintroduce fire on a landscape-scale and still have effective control over fire behavior, but beyond that we may lose this control due to climate change.

In rural communities, it is getting late to address the needs for land use zoning, revised building codes, and enforceable vegetation management ordinances. Climate change is going to create more fire-prone environments. We have to break the cycle of new homes being rebuilt in the same places with the same materials as the homes that were destroyed by the last fire. Ideally, our goal should be to create fireproof structures able to dwell sustainably in fire-permeable landscapes.

WE NEED TO BE PROACTIVE, NOT REACTIVE, TO MANAGE WILDLAND FIRES IN A CHANGING CLIMATE

Our traditional strategies that focused on prevention and suppression have become increasingly ineffective and unsustainable. Large wildfires defy our ability to "put them out" and they often burn until the weather changes. The attempt to extinguish all fires has, in fact, caused huge costs to taxpayers, significant environmental damage, and put firefighters at unnecessary risk. It is important to acknowledge that there are forces of nature that cannot be controlled, and perhaps megafires should be viewed like hurricanes, earthquakes, and volcanic eruptions—natural disturbances that we must adapt to since we cannot prevent them. This is not fatalism, but instead, a plea for realism and a change from reactive fire suppression to proactive fire management.

Last year the "San Diego Declaration on Climate Change and Fire Management" was formally ratified at the Third International Fire Ecology and Management Congress, an event attended by over 1,200 fire scientists and managers. This historic document presents a synopsis of the best available science on the effects of climate change on wildland fire, and provides a list of action items. I would like to enter the full San Diego Declaration into the record along with my testimony, and urge Congress to do whatever you can to facilitate implementation of its recommendations.

GLOBAL WARMING IS A FIRE ISSUE

Alongside melting glaciers, and rising sea levels, it is clear that “megafires” are providing another dramatic signal of climate change. In our view, global warming is fundamentally a *fire* issue, because *burning* fossil fuel is the primary anthropogenic cause of climate change.

Consequently, we must bridge the gap between the Nation’s energy and climate policies, and our wildland fire management policies. The best available science and the professional experience of wildland firefighters justifies taking action now to reduce fossil fuel burning while at the same time addressing land management practices, rural development patterns, and fire management policies in order to confront both the causes and consequences of climate change.

Wildland firefighters serve on the frontlines of climate change, and have high hopes that Congress will craft sound energy, land management, and urban development policies that effectively deal with these “burning issues.”

Thank you very much.