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**Testimony of Kacey KC, Nevada State Forester Firewarden**

**House Subcommittee on Economic Development, Public Buildings, and Emergency Management**

**Tuesday, October 26, 2021**

**“Are FEMA’s Assistance Programs Adequately Designed to Assist Communities Before, During,  
and After Wildfire”**

Good morning, Chairwoman Titus, Ranking Member Webster, and Members of the Committee. My name is Kacey KC, State Forester/Firewarden for the Nevada Division of Forestry. I appreciate the opportunity to speak with you today and submit my written testimony as the Subcommittee examines FEMA’s wildfire assistance programs.

**Background**

Climate change, dangerous fuel accumulations, and increased development in the wildland urban interface has caused a significant increase in catastrophic loss of life, property, and ecosystems across the United States, most dramatically in the Western U.S. Fire seasons have expanded to year-round wildfire occurrence and fire intensity has increased, leaving little surviving native vegetation post-wildfire. These fire frequencies have been shortened to lengths that only allow short-lived, weedy, and flammable species to remain on our landscapes. In many Western States, these changes are causing increased burdens on insurance and national programs like those managed by FEMA to assist with the increase in the costs of wildfire suppression and the losses suffered to home and business owners.

Nevada’s wildland fire occurrences have followed this same trajectory. During the 20-year period between 1980 and 1999, Nevada burned 4,160,929 acres. This is an average of 208,046 acres burned per year. This 20-year period included the most devastating year on record, 1999, in which over 1.7 million acres burned (see graph below). The wildfire events of 1999 were an anomaly within that period, as Nevada had never experienced anywhere near 1 million acres burned since the inception of wildfire data collection. In the next 21 years, from 2000 to 2020, Nevada burned 9,959,185 acres, which is an average of 474,247 acres burned per year, more than double the previous 20-year period. Of note, within this latter 21-year period, Nevada has burned close to or over 1 million acres annually in 6 different years. This is directly correlated to climate in years of extended drought interrupted by a year or two of above average precipitation and warmer overall temperatures.

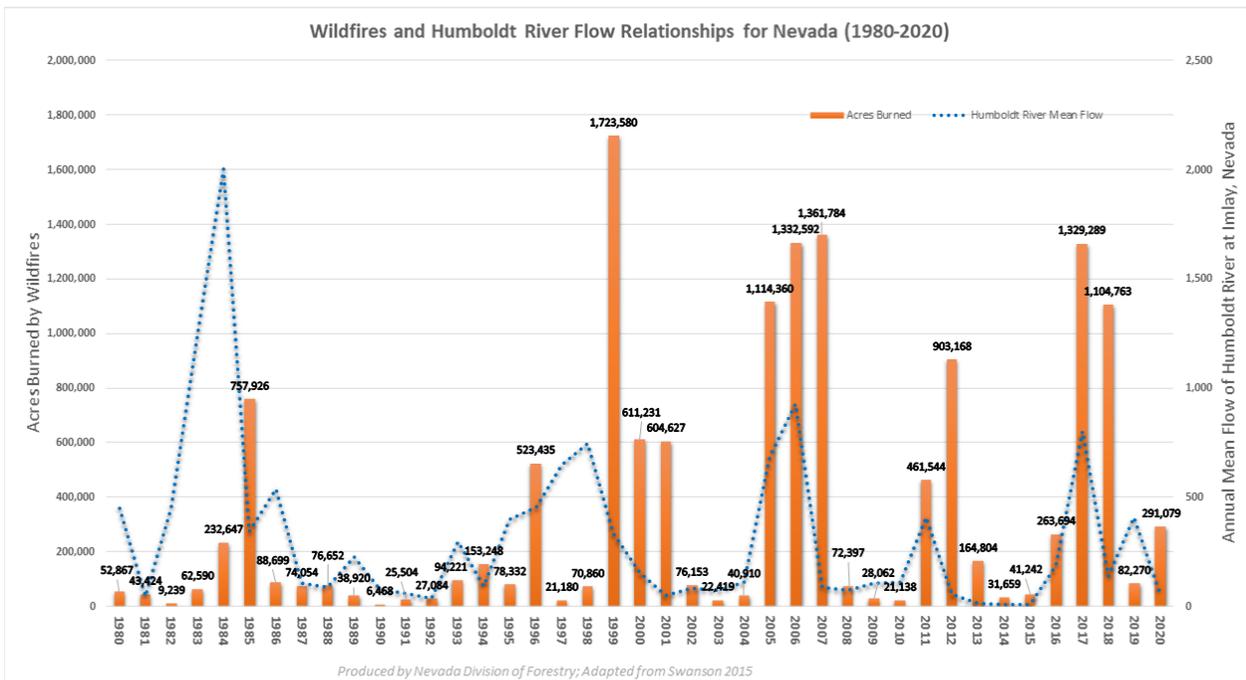


Table: Annual wildfire acreage burned in Nevada overlaid with Humboldt River flows, which is indicative of most Nevada watershed response showing Nevada’s largest fire seasons by acres burned are the 2 – 3 years following high water flows.

Between 2005 and 2020, wildfires have destroyed more than 89,000 structures, including homes and businesses in the United States. The most damaging wildfires have occurred in the last few years, accounting for 62 percent of the structures lost over the last 15 years (Headwaters Economics, 2020). The following list shows significant losses due to wildfires in the United States over the last decade (NIFC, 2021).

- **2011:** Texas- 5,900 structures damaged or destroyed
- **2012:** Colorado- 3 civilian fatalities and 605 homes lost
- **2013:** Arizona- 19 firefighter fatalities and 129 structures destroyed
- **2014:** California- 341 residences destroyed;  
Washington- 342 residences destroyed
- **2015:** Washington- 3 firefighter fatalities and 342 residences destroyed
- **2016:** Tennessee- 14 fatalities, 2121 residences destroyed
- **2017:** California- 7,778 residences destroyed; Florida- 44 residences destroyed
- **2018:** California- 88 civilian and firefighter fatalities and over 18,800 structures lost
- **2019:** California- 315 residences destroyed; Alaska- 57 residences destroyed
- **2020:** Oregon- 11 civilian and firefighter fatalities and over 3000 structures destroyed;  
California- 10,500 structures destroyed and 33 civilian and firefighter fatalities

The increased loss in structures, lives and ecosystems and further damage from subsequent floods is requiring a significant increase in the need for active ecosystem management across Nevada, better coordination and participation among multiple partners, and increased funding from multiple sources to address the threat of catastrophic wildland fire loss.

## **Nevada's Use of FEMA Wildfire Funds**

The Nevada Division of Forestry (NDF) is designated as the Governor's Authorized Representative (GAR) for the application of Fire Management Assistance Grants (FMAG) in Nevada. FEMA's FMAG program is critical for state, local, and tribal government agencies because of the 75% reimbursement rate afforded to these partners for wildfire suppression costs of non-federal response assets. To be accepted, an FMAG must be submitted when the threat of wildfire impact is imminent. During the active response of suppression assets, the program assesses the following criteria for eligibility: threats to human lives and property, including critical infrastructure and watersheds; availability of state and local government firefighting resources; high fire danger conditions; and the potential for major economic impact. NDF's on-call duty officers work with FEMA's regional officials and a Forest Service Technical Advisor to submit a timely application that meets the program's qualifying criteria, if they are present.

There are two primary issues NDF has identified with the FMAG approval process:

- 1) Although population size for a threatened community is not explicitly identified in FEMA's guidance to States on FMAG applications, it appears size is widely used when determining eligibility. This has continuously ruled out many of Nevada's rural fires that have caused severe economic loss to landowners, rural economies, agricultural enterprises, mines, tourism, and local and state governments. This was brought to light when the FMAG request for the South Sugarloaf Fire, a fire that burned over 364 square miles, was denied originally and then again when appealed by NDF.
- 2) Eligibility for the same community varies year to year, even when eligibility criteria remain the same and are consistently met. This was evident in the FMAG request for the Nevada side of the Tamarack Fire this year, which was originally denied; however, the same community had received two FMAGs in previous years. This causes confusion for GARs when supplying information to FEMA in the FMAG process.

In 2018, FEMA allocated Hazard Mitigation Grant Program (HMGP) funds for wildfire mitigation, rehabilitation, emergency stabilization, and restoration to the community/county/state that was awarded an FMAG. This first allocation in 2019 counted all successful FMAGs awarded from 2016-2018, then was allocated each year thereafter based on those years approved FMAGs. Nevada was deemed an area of high wildfire threat and was awarded the maximum amount of funding per FMAG through this HMGP allocation. The allocated HMGP amount in Nevada started at \$566,677 per FMAG and has increased every year. Currently, Nevada receives \$778,778 per FMAG. Since 2016, NDF has been awarded 17 FMAGs and subsequently over \$10.7 million in HMGP wildfire mitigation funds have been allocated. Each year, FEMA and the State of Nevada's Division of Emergency Management have solicited grant proposals for funds allocated to Nevada. The State of Nevada, along with its local fire protection organizations have applied and been selected for awards of the HMGP Grants. Of that \$10.7 million, close to \$8 million has been awarded to wildfire mitigation projects or equipment, approximately \$1.5 million went to mitigate other hazards and over \$2.2 million was returned to FEMA due to withdrawn applications. The complicated application process and the length of time to award has caused many applicants, particularly local government fire departments who do not have the capacity to deal with this, to turn down these FEMA funds. NDF has tried to apply on behalf of these jurisdictions to keep the funding in Nevada, however, has also had difficulty navigating the process, which averages two to three years to complete. Applications for equipment purchases move through the FEMA application process with ease; however, mitigation, fuel reduction, rehabilitation, and home hardening processes all experience substantial delays. The Nevada Division of Emergency Management (NDEM) is the recipient of all HMGP funds in the State of Nevada, including wildfire mitigation, as those funds are tied to the State of Nevada Enhanced Hazard Mitigation Plan. NDEM works diligently with FEMA on behalf of NDF and local government entities to

ensure these wildfire mitigation HMGP funds are used for wildfire mitigation in the most critical and high-risk areas. Ecosystem management, cultural resource clearances, and wildfire mitigation, however, are not NDEM's area of expertise, which has caused delays in applicant receipt of funding and the funding of projects that are not of the highest priority. State Forestry Agencies like NDF have State Forest and Resource Management Action Plans as well as Shared Stewardship Plans, created with state, federal, and local government partners which identify the areas of highest wildfire risk in need of treatments.

NDF has applied for, and been awarded, funds for five projects to date through NDEM and the wildfire mitigation HMGP funds. The application process is more challenging than most other sources of mitigation funding but is manageable. Once selected, the environmental clearance process is extensive and has taken over three years so far, as we have not yet made it through any of those processes and received funds for implementation. Much of this funding is necessary to assist the affected county with immediate emergency stabilization measures to ensure that when the first rain or snow falls following the fire, there is no further damage to lives and property due to flooding or landslides. If three years have passed before funding can be allocated, then NDF and our partners have not been able to mitigate the post-wildfire impacts to lives and property. We and our local partners find ourselves in a much more costly and time-consuming restoration project due to the ongoing erosion, sedimentation, and runoff processes that tend to follow wildfires, particularly when known issues are not managed in a timely manner following the wildfire occurrence. In addition, the longer the time between the fire and the restoration activities, the harder it is to avoid highly competitive non-native, noxious species out competing native vegetation following fire and contributing to the loss of water supplies for communities, habitat for wildlife, and other economic activities tied to healthy ecosystems.

## **Suggestions to Ensure Successful Implementation of FEMA Funds**

- 1) Ensure that FMAG eligibility criteria are equally applied across all states and do not favor highly populated areas over more rural areas, as loss of livelihoods and economic impacts are critical regardless of overall human population.
- 2) Ensure FMAG eligibility criteria are clearly written and understood by FEMA staff and applicants.
- 3) Have FEMA work directly with State Forestry agencies, like NDF, and/or other federal land management agencies, who have been implementing wildfire mitigation projects for over 100 years and have current plans and strategies depicting the highest risk areas from wildfire needing treatment, to ensure that wildfire mitigation (HMGP) funds go to the highest priority risk reduction areas when they are not being used solely for rehabilitation of the awarded FMAG fire. The GAR for the wildfire HMGP funds should be the same as that for the FMAG process and should align with the State Forestry agencies that manage natural resources and wildfire risk reduction in the State.
- 4) Have FEMA and DEM receiving agencies establish agreements with State Forestry agencies to expedite cultural resource reviews to ensure expeditious application of wildfire mitigation HMGP funds on critical risk reduction projects.
- 5) Allow an advance of a portion of the FMAG-related HMGP funds to be awarded to allowable recipients immediately upon approval so that emergency stabilization measures can be put in place for the protection of lives, properties, and remaining natural and cultural resources.
- 6) FEMA programs for flood and earthquake are very well established with set projects to expedite review and approval. Develop a similar process for wildfire emergency stabilization measures and mitigation projects to streamline the process of application review, approval, and award to ensure that timely actions can be applied on the ground.

7) Many States in the Western U.S. have identified wildfire as a top priority in their Multi-Hazard Mitigation Plans. Funding for active fuel management has traditionally gone directly to Department of Interior and Department of Agriculture agencies, which then pass down to states, local governments, and tribal entities. Traditional funding streams should be continued and increased to address growing wildfire occurrences. If FEMA is going to have a role in fuel management, it should be clearly defined, and the process should mimic those of DOA and DOI agencies.

8) FEMA grants require extensive Benefit Cost Analysis (BCA) reports for submittal. The current criteria should be evaluated to ensure it covers wildfire issues in addition to other funded disasters equally. Also, pre-calculated benefits for wildfire mitigation should be designed for common projects to expedite the application process.