EVERYONE GOES HOME®
IN THE WILDLAND

September 2018
Executive Summary

As the incidence of fire increases in our nation’s wildland and wildland-urban interface (WUI) environments, so does the number of firefighters and their families affected by occupational accidents, injuries, and deaths. In response, the National Fallen Firefighters Foundation (NFFF) has initiated a targeted effort to reduce these fatalities and injuries by bringing the Everyone Goes Home® program and the 16 Firefighter Life Safety Initiatives to the wildland community.

In 2017, the NFFF began the process of conducting a wide-scale needs assessment to identify vulnerabilities, attitudes, and intervention opportunities related to wildland firefighter health and safety. A survey was broadly disseminated, and six regional listening sessions were held to provide stakeholders with the opportunity to explore questions, answers, and approaches to the problem of reducing wildland line-of-duty death (LODD) and injury. During these sessions – held in Phoenix, Denver, Portland, Boise, Sacramento, and Orlando – participants from every identifiable sector of wildland firefighting were able to make their voices heard. These included what we traditionally think of as wildland firefighters – representatives of national natural resource management organizations, state, county, and local forestry departments, and contract agencies, as well as members of volunteer, combination, and career structural departments with wildland fire responsibilities.

One of the resounding themes heard at these sessions was the desire to work to end the perceived “worlds apart” between wildland and structural fire service personnel and agencies. Firefighters acknowledged the need to work and train collaboratively across organizations, and clearly want to build bridges and bring both worlds together. It was evident that from leadership down, there is a need to bridge the thinking which separates natural resource and structural fire service organizations. The increasing frequency of these two groups coming together to mitigate incidents makes a stronger collaboration critical to any efforts to reduce LODD and injury incidents.

Another important finding was the need to better define and manage risk in the wildland. For structural firefighters, risk management is an important tool of the trade. Unfortunately, there is no common framework, strategic approach, nor operational language which defines a risk management strategy to fighting wildland fire. The US Forest Service has developed some ideas regarding risk management, but they are not yet broadly accepted across agencies. While various standards exist around risk management (ISO, NFPA, etc.) for structural firefighting, nothing has been developed to be uniformly applied in the wildland or WUI environments.
These and the other resulting strategic and tactical recommendations developed by the NFFF (on page 10 of this document) are a path forward in reducing wildland accident, injury, and death. To engage national leadership, the NFFF initially presented these findings to an April 2018 meeting of national leadership in Washington, D.C. Heads of national natural resource, wildland, and structural fire constituency organizations, federal agencies, and state and national level forestry leaders were in attendance, as well as undersecretaries from both USDA and DOI. There, attendees heard the results of the needs assessment and optimistically offered their input regarding next steps.

This is clearly the beginning of a change that will take years, and the commitment and collaboration of everyone involved.

**Change is hard work yet change we must. The status quo – current rates of injury and death – is unacceptable. It’s time to ensure that the safety culture codified in the 16 Firefighter Life Safety Initiatives reaches ALL firefighters, including those responding in the wildland and WUI environments.**
Our Efforts

Over the past year, the National Fallen Firefighters Foundation renewed their energetic steps toward reducing accident and injury amongst firefighters, turning their focus toward protecting those who deal with wildland fire. The NFFF is preparing to move forward with bold approaches to dealing with reducing risk, saving lives, and addressing the significant health and safety issues which impact firefighters who respond in the wildland and WUI environment.

Fires which occur outside buildings, improvements, and structures, whether fueled by grass, brush, forest, timber, mulch, or other materials, are the “wildland fire” we contend with in the fire service. It may take the form of thousands of acres of trees on fire, purposeful burning done to reprise the role of fire in ecosystems or to remove woody debris, or the small vacant lot grass fire. In whatever form it takes, fire in nature differs significantly in character from fire in structures; to effectively manage wildfire requires different tools, tactics, and thought processes. Ostensibly these wildland fires are primeval, in that these were the fires confronted by our ancestors.

While these fires are ancient, we still continue to struggle with wildland fire to this day. With more than one billion burnable wildland acres in the US, every day of every year, some part of the American fire service is dealing with wildland fire. There is no longer a “fire season,” there is a “fire year.” And in fighting and managing these fires, many – too many – of our brothers and sisters in the fire service are dying in the line of duty. Data informs us that wildland firefighters die at a higher rate than those involved in structural fire response. The resulting emotional, social, and fiscal costs of wildland firefighter death, accident, and injury weigh heavily on each of us, both as citizens and as members of the fire service.

The NFFF, US Fire Administration (USFA), and many other groups believe we can “do better.” These losses, in life and expense, have generation-long impacts that are too devastating to simply absorb as “the cost of doing business.” Unless we choose to change the ways in which we operate, too many wildland firefighters, meaning any firefighter from any city, county, or other organization engaged in wildland work, will continue to die in preventable incidents. To “prevent the preventable,” we need change – positive change. We must improve our doctrine, strategies, tactics, and human factors training in wildland fire so more of us, those engaged in wildland work, live long and healthy lives after we have accomplished the service the public expects of us.
The NFFF has taken on the task of working to coalesce the many voices of wildland fire in support of their objective, to reduce line-of-duty death (LODD), accident, and injury among our firefighters. As an initial step, the NFFF conducted a wide-scale needs assessment of all populations involved in wildland fire response, including natural resource management organizations, which have not traditionally identified themselves as part of what we know collectively as “the fire service.” The assessment included two widely disseminated online surveys, formal and informal meetings, organizational gatherings, and six focused two-day “listening sessions,” held in Phoenix, Denver, Portland, Boise, Sacramento, and Orlando.

After investing a year in this focused inquiry, the NFFF presented their findings and engaged a representative sample of American wildland fire senior leaders in active discussion at a meeting held outside Washington D.C., on April 17, 2018, ahead of the Congressional Fire Service Institute’s annual National Fire and Emergency Services Dinner & Symposium. The assembled group of senior leaders was asked for their input, review, comment, and commitment to a series of actions and recommendations emanating from the NFFF’s needs assessment. The event began with thoughtful opening comments by leaders from the NFFF, USFA, Wildland Firefighter Foundation (WFF), Congressional Fire Service Institute, US Department of Agriculture (USDA, home of the Forest Service), and US Department of the Interior (home to four federal wildland fire organizations).

Attendees represented a broad range of additional stakeholder organizations, including:

- Federal organizations responsible for wildland fire within the DOI and USDA
- International Association of Fire Chiefs
- International Association of Fire Fighters
- International Association of Wildland Fire
- International Fire Service Training Association
- National Fire Protection Association
- National Institute for Occupational Safety and Health/Center for Disease Control
- National Institute of Standards and Technology
- National Volunteer Fire Council
- National Wildfire Suppression Association
- State forestry organizations represented by the National Association of State Foresters (NASF)
- US Fire Administration
- Wildland Firefighter Foundation
The diverse group of senior leaders assembled thoughtfully considered actions in both the large group and in smaller, more focused, discussion sessions. It was important for attendees to understand why the NFFF, at this juncture, was prepared to engage in this effort to support the wildland community. The NFFF clearly conveyed their intention to form and sustain collaborative relationships and build coalitions among organizations with the support of each organization’s leaders. These partnerships will be important tools in advancing national efforts to reduce wildland fire LODDs. Drawing from their success in reducing LODDs among structural firefighters through programs under the Everyone Goes Home® umbrella, the NFFF now proposes to leverage their strengths and resources to do the same for wildland firefighters. Their assets and expertise include:

- More than a decade of experience focusing on firefighter health and safety by developing and implementing targeted intervention strategies.
- A broad array of tools, programs, and resources that can be easily adapted for use by the wildland fire community.
- A proven track record of working with diverse agencies to unite efforts in pursuit of the common goal of reducing firefighter fatalities. NFFF is known for recognizing each agency’s unique organization and culture, then tapping into those characteristics to build a cohort that strengthens partnerships and collaboration – keys to successful change.

The April meeting was also notable for the ground-breaking statement of mutual support and cooperation by the WFF and the NFFF. Vicki Minor and Ron Siarnicki, Executive Directors of both organizations, had excellent interaction and recorded a conversation about aligning both foundations with the targeted objective of decreasing injury and death among wildland firefighters. A video of the conversation is being released in conjunction with this paper, and will be widely disseminated on social media.

At the April meeting, leaders heard the results of the NFFF’s comprehensive survey of stakeholders, as well as a detailed report of the six listening sessions. These focus groups were held across the country to solicit feedback directly from firefighters representing the range of departments and organizations who deal with wildland fire. They included firefighters from across the spectrum of wildland firefighting and natural resource management organizations, as well as private, local, state, and federal organizations. Individuals represented groups as diverse as the largest wildland fire organization in the world, the US Forest Service, to small private organizations such as Rangeland Fire Protection Associations (RFPAs). RFPAs are comprised of ranchers and farmers who engage in wildland fire suppression to protect public and private grazing lands.
One of the resounding themes heard during the listening sessions, and perhaps the most significant message from firefighters, was the need to work to end the perceived “worlds apart” between wildland and structural firefighters and organizations. Attendees acknowledged the need to work and train collaboratively across domains, and clearly want to build bridges and bring both worlds together. It is evident that from leadership down, there is consensus we need to bridge the thinking which separates natural resource agency personnel from those in the structural fire service. The increasing frequency of wildland and structural firefighter organizations coming together to mitigate incidents makes a stronger collaboration critical to our efforts to reduce LODD and injury incidents.

Community risk reduction was also a common topic of interest and focus during the listening sessions. Participants acknowledged the need to engineer a future where wildlands are less flammable, and communities are better equipped to deal with wildfire. However, participants also recognize that the “Design it Out” option for wildland fire is a strategic vision of a grand scale that will take an extensive investment of time, people, and funding. Those investments suggest far-reaching resolutions in the wildland fire environment that will not likely transpire in the immediate future. While participating firefighters want leaders to continue to advance advocacy for these efforts at the state, local and federal levels, they recognize that they can’t wait for that future to become reality, and other, more immediate, actions are needed to improve their safety.

Attendees also stressed the need for accountability across ranks, and the willingness to “do more” at the individual, crew, and company level to increase safety. Firefighters clearly want to reduce LODDs and recognize that reducing fatalities is intertwined with other issues. These include the lack of access to good data, the need for firefighter physicals and fitness testing to develop a baseline for health and wellness, and a growing awareness of the gaps in available resources to support the emotional wellness of personnel and their families.

Another dominant topic at the listening sessions was risk management. While risk management is a well-known concept in the structural fire service, natural resource management agencies with wildland fire responsibility are now using the term more frequently. It is evident, though, that the specifics of the application of risk management are neither consistently understood nor utilized across organizations. All those involved in wildland fire know that risk is inherent to our profession. Firefighters, fire managers, fire leaders, fire chiefs, etc. all purposefully engage a hazard – whether that hazard is fire we light (prescribed fire) or unplanned fire (wildfire). Currently, our willingness to accept risk in response to wildfire is out of alignment with the biophysical reality we face. We still respond to fire in the same manner we always have, without adjusting to the reality of today’s fires.
As a cohort, we routinely accept risk, but we never accept loss. But doesn’t accepting risk mean we are accepting the chance of suffering loss? There is a clear and evident need to have the difficult conversations surrounding risk. This will include frank discussions about what the community is willing to risk, and what the community is willing to lose when fighting a wildland fire. That discussion, and multiple other factors, continue to cloud the application of risk management within wildland fire response. That ambiguity leads to conflict, including:

- There is no commonly accepted definition of risk management nor application of risk management principles among the wildland community, including those final decision-makers (agency administrators).
- Expectations regarding the acceptance of risk are different in protecting public vs. private lands.
- Managing fire through prescribed fire reduces risk but is often not an option. Laws, rules, regulations, practice, and other influences often limit wildland fire management.
- Managing community building practices reduces risk but is often difficult to achieve.
- Individual tolerances for risk vary widely and are influenced by many factors.
- Perceptions of risk levels and risk tolerances can vary between levels of leadership on the fire ground and between leaders and firefighters.
- The public seems conflicted about risk, so firefighters are conflicted about risk.
- Having one partner, or group of partners perceived as being “risk-averse” can lead to additional risk burdens for other firefighters, landscapes, and for communities.
The discussion surrounding risk management will be critical to undertake and will impact wildland fire policies and tactics for decades to come. The sooner this dialogue can start, the sooner the wildland community can begin to establish a common vision. All stakeholders (firefighting personnel, agency and political leaders, the general public, and researchers) need to be present at the table to discuss values at risk (monetary, biological, egos, ownership, etc.). One of the root questions to ask is, “What are we protecting or not protecting, and what are the positive and negative effects of these decisions in the long- and short-term?” We must be clearly asking upfront if the gains are worth the exposures – the discussion about values and trade-offs is critical.

The wildland fire service leadership present at the April 2018 meeting was able to reach consensus on initial steps to take to improve the health and safety of wildland firefighters. The result is a series of recommendations for the agencies present, guided by the experience and oversight of the National Fallen Firefighters Foundation, to begin to be implemented immediately to reduce injuries, deaths, and accidents among wildland firefighters. A complete list of these recommendations follows on page 10.

The April 2018 session closed with an inspirational call to action from the State Forester of Florida, chair of the National Association of State Foresters Wildland Fire Committee. He noted that clearly, there is significant work to do to change. Nevertheless, change we must. Every year, wildland fires engage thousands of firefighters from federal, state, local, and private entities. While they understand the need to take action at the lowest level to improve their own health and safety, the NFFF’s listening sessions revealed these firefighters to also have high expectations for leaders. They are counting on us. This revelation demands that the wildland community embark on a more vigorous campaign to reduce LODDs and injury, which is a worthy goal for all. It is also a common starting point for better collaboration among all of us. We need to enlist everyone’s help and have every agency with an interest in the wildland fire problem engaged. Fortunately, we can rely on the National Fallen Firefighters Foundation to lead the way.

Funding for this effort was provided by the FEMA-DHS Assistance to Firefighters Fire Prevention & Safety program. The National Fallen Firefighters Foundation is grateful for their assistance in accomplishing this worthy work.
Strategic and Tactical Recommendations

1. **“Two worlds apart” must become closer.**
   Natural resource management and fire service organizations need to become worlds who learn to support one another in wildland work.

2. **Increase application and understanding of risk management concepts.**
   The discussion surrounding risk management will establish a common vision and clearly define values vs. tradeoffs for all stakeholders, including firefighting personnel, agency and political leaders, homeowners, the general public, and researchers.

3. **Change the wildland fire paradigm from, “Can we accomplish the mission?” to “Can we survive the mission?”.**
   As an industry, we need to ask, “How can we respond in a manner which protects citizens, sustains landscapes, and allows reasonable risk for responders?”

4. **Change the expectation that we can be successful in EVERY wildland mission ALL the time.**
   We need to publicly acknowledge both our capabilities and limitations as an industry.

5. **Increase awareness of the 16 Firefighter Life Safety Initiatives among wildland firefighters.**
   The 16 Firefighter Life Safety Initiatives are strategies for implementation of the Everyone Goes Home® program but are not well known among wildland firefighters. To broaden awareness and utilization, we can:
   a. Explore whether the 16 Firefighter Life Safety Initiatives can be tweaked to become more broadly inclusive of wildland culture.
   b. Better explain the interaction between the wildland community’s well known “10/18/LCES/Watch Outs” with the 16 Firefighter Life Safety Initiatives.
   c. Develop materials to explain implementation of the 16 Firefighter Life Safety Initiatives within a wildland context.

6. **Adapt effective Everyone Goes Home® tools for wildland use and target marketing of these tools to wildland fire agencies/organizations.**
   Existing and future Everyone Goes Home® tools can be made more inclusive of wildland firefighters and organizations. Targeted marketing efforts, beginning at the state wildland fire academy level, will broaden exposure of wildland firefighters Everyone Goes Home®.

7. **Utilize state Everyone Goes Home® Advocates to provide outreach to wildland fire organizations.**
   The NFFF’s well-developed network of state-based volunteers can be used to advocate for the Everyone Goes Home® program and provide training to wildland fire organizations. Special effort also needs to be made to recruit additional Advocates from within the wildland fire community.
8. Increase the use of medical screenings and fitness/wellness programs to improve the health and safety of all firefighting personnel.
Identification of pre-existing risk factors through NFPA 1582 medical screenings and increased adoption of holistic health programming such as IAFC/IAFF’s Fire Service Joint Labor Management Wellness Fitness Initiative should be prioritized.

9. Enhance the ability of the wildland fire service to take care of its people prior to and in the aftermath of a firefighter injury or fatality.
Firefighters want access to tools to support emotional wellness for themselves and their families, such as those that were developed to fulfill the NFFF’s Firefighter Life Safety Initiative #13.

10. Continue to focus research and prevention efforts on the major categories of line-of-duty death and/or injury in wildland fire accidents. These include:
   a. Medical incidents, which include cardiac events, rhabdomyolysis, hyperthermia, occupational cancers, etc.;
   b. Motor vehicle accidents, including unsafe driving, lack of seat belt use, etc.;
   c. Burn overs/entrapments;
   d. Aviation accidents; and
   e. Snags/rocks/rolling debris.

11. Introduce results of research products and findings at all levels of the organization, down to the lowest level applicable.
There is a tremendous amount of good science information which is not being effectively utilized. This information should be used to inform and improve practices, training, and education.

12. Data problems need to be reconciled.
While the National Fire Protection Association (NFPA) has done much work in this area, currently there is no authoritative national census on wildland firefighters across the spectrum of agencies and organizations.

13. Increase marketing efforts for the National Wildland Fire Cohesive Strategy.
There is little overall awareness for the National Wildland Fire Cohesive Strategy. Where it has been implemented, it has demonstrated effectiveness. These “points of light” (including Central Oregon, Flagstaff, GOAL), where the “worlds apart” are now working together, can be used to model implementation.
Our mission is to honor and remember America’s fallen fire heroes, to provide resources to assist their families in rebuilding their lives, and to reduce firefighter deaths and injuries.