Statement of
Bryan Rice
Director, Office of Wildland Fire
U.S. Department of the Interior
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Chairman Murkowski, Ranking Member Cantwell, and members of the Committee, thank you for the opportunity to provide testimony on the Department of the Interior's (Department) Wildland Fire Management program (WFM).

The Office of Wildland Fire (OWF) coordinates the Department's WFM program with Federal agencies, Tribes, states and external partners to establish policies and budgets that are consistent with and support the goals of the National Cohesive Wildland Fire Management Strategy. OWF provides strategic leadership and oversight to advance the three goals of the National Cohesive Strategy, which are to: 1) restore and maintain fire-resilient landscapes; 2) create fire-adapted communities that will withstand the effects of a wildfire without the loss of life and/or property; and 3) safely and effectively respond to wildfire.

OWF recognizes the importance of collaboration with Federal partners, states and local governments, Tribes, and other stakeholders to achieve the goals of the National Cohesive Strategy and significantly reduce fire risk to wildland firefighters, communities, and landscapes. The success of the WFM program is highly dependent upon full and successful collaboration in every facet of the program. Partnerships are key to DOI's land stewardship responsibilities, including the application of fuels management work that helps reduce fire risk; post-fire rehabilitation work that helps restore landscapes and watersheds; and fire science that provides information needed for fire practitioners and decision makers.

The integration of fire management with resource management functions across the Department is a core principle of the WFM program. For instance, fuels management projects influence wildfire behavior and promote the safety and effectiveness of wildfire response. Through the use of prescribed fire, chemical treatments, and other applications we are able to reduce wildfire risk and safeguard communities and infrastructure. At the same time, these projects enhance wildlife habitat and help watersheds become more resilient to the damaging effects of wildfires. The strategic application of fuels projects in priority areas helps in managing the negative effects of wildland fires, including in areas that are prone to unnatural high intensity fire activity.

Finally, in advancing the goals of the WFM program, OWF recognizes the importance of developing and adopting advanced or emergent technologies. This is critical to becoming a more efficient and more effective wildland fire organization, and is paramount to the oversight and

management of a safe WFM program. Outside of the Department of Defense, DOI is the emergent leader in the research and development and practical deployment of Unmanned Aircraft Systems (UAS), or drones, on wildland fire management operations. Currently, the Department uses UASs to support firefighters in the field, map fires using infrared technologies, and gather data for strategic planning. These advancements support the safety of our firefighters and the public and allow us to be better positioned to address wildland fire. Through a robust UAS program, we continue to be innovative and improve our operational efficiency.

2016 Wildfire Season

The greatest losses during the 2016 wildfire season involved the fatalities of 15 wildland firefighters who made the ultimate sacrifice to protect the lives of others and the lands and resources we are entrusted to manage.

In 2016, wildfire activity was below the rolling ten-year average for the number of fires (92 percent) and number of acres burned (79 percent). The Southern Area burned the most acres – with wildfires consuming over 1.5 million acres. Despite the lower acreage burned, requests for firefighting resources placed with the National Interagency Coordination Center were very close to average. The number of residences burned was more than double the average number. More than 4,300 structures were destroyed, including nearly 3,200 residences. In Tennessee, over 2,000 residences were lost in the Chimney Top 2 Fire; and sadly, 14 people also lost their lives. This reminds us all that wildfire is not only a Western issue and can occur anywhere in the United States.

In fiscal year (FY) 2016, the Department was appropriated $468.7 million for suppression operations. Including carryover balances, the total budget authority was $510.4 million. This includes funding appropriated to the Department in the Suppression Account and the Federal Land Assistance, Management, and Enhancement Act (FLAME) Account. Of the total available budget authority, $371.7 million was obligated, and no Section 102 transfers were required.

2017 Fire Season

Firefighter and public safety is paramount in all firefighting operations. Before engaging in any activity, we fully evaluate risks with a broad perspective for both planned and unplanned ignitions, while considering the people we serve and the landscapes we protect.

The cumulative impacts of drought, invasive species, and climate variability are creating a landscape more susceptible to devastating wildland fires. Long drought, followed by a wet winter and spring, has led to extensive areas with abundant herbaceous growth, while shrublands, woodlands and forests remain impacted by the drought. As the grasses mature and dry, they can readily spread fire to the woody vegetation that has not yet recovered from

drought. These impacts and declining forest health are exacerbated by an ever-expanding wildland urban interface, and the inherent complexities and dangers of fighting wildfire in and around these growing communities. We continue to be impacted by escalating emergency responses and increasingly dangerous and costly wildfire response operations.

In addition to these variables, the wildfire risk in 2017 will be highly dependent upon both weather and human factors. The National Significant Wildfire Potential Outlook, issued by the Predictive Services Unit at the National Interagency Coordination Center, predicts above-normal significant fire potential for the Island of Hawaii (the Big Island) through October. Several parts of California will have above-normal significant fire potential from August through November. The area of above-normal potential from the northern Great Basin through the Pacific Northwest and Northern Rocky Mountains to the Great Plains becomes smaller in October and November. Monsoon rains have returned northern Arizona to near-normal wildfire potential.

So far this season, we have seen outbreaks of large fires in the midwest, southeast, southwest, Northern Rockies and California, as well as individual large fires elsewhere. As of August 1st, nearly 39,000 fires have burned almost 5.5 million acres of land. While the number of fires to date this year is less than the rolling 10-year average number of fires, the acres burned exceeds the 10-year average (3.8 million acres).

Together with our partners at the U.S. Forest Service, we are actively working the 2017 fire season. This season, the Department plans to deploy over 4,600 firefighters, including 145 smokejumpers and 16 Type-1 crews; more than 600 engines and 100 other units of heavy equipment (dozers, water tenders, etc.); and we expect to be able to mobilize approximately 1,300 personnel ready to support wildfire and all-risk incidents (including incident management teams, dispatchers, logistics, and fire cache activities). Collectively, nearly 6,000 Department personnel are prepared to mobilize.

This year, the Department has contracted for 84 single-engine airtankers (SEATs) that are available on an "on-call" basis. SEATs are a good fit for the types of fires that the Department faces on public lands. Many of these fires burn at lower elevations, in sparser fuels, or on open terrain where smaller airtankers are especially effective. In addition, the Department has access to over 350 small and large helicopters and 17 water scoopers. We will utilize U.S. Forest Service contracted heavy airtankers where appropriate, and if necessary, Modular Airborne FireFighting System (MAFFS) equipped C-130 aircraft from the Department of Defense. Agreements are also in place to use supplemental aircraft from our state and international partners.

Enacted WFM program funding for FY 2017 totals approximately $1 billion, including $460 million for suppression. We believe these resources and carryover balances will allow us to continue to provide effective wildland fire preparedness and suppression across more than 500

million acres of Department managed public lands.

Collaboration and Coordination in Wildland Fire Management

The National Cohesive Wildland Fire Management Strategy was built upon the need for collaboration between Federal agencies, Tribes, state and local governments, and other partners. Collaboration is foundational to wildfire planning and suppression operations; to the identification and mitigation of wildfire hazard and risk; and to post-fire treatments that stabilize soils and restore lands. The majority of issues in wildland fire management arise from the ground up, and most are managed first at the local or landscape level, across ownerships and amongst interested stakeholders. For example, the National Park Service (NPS) and the State of Alaska joined in creating fuel breaks on Federal and state administered lands to protect the McCarthy community after being threatened by the 2009 Chakina Fire.

The Department has actively supported the preparation of Community Wildfire Protection Plans (CWPPs), as directed by the Healthy Forests Restoration Act (HFRA), not just on lands treated under HFRA authorities, but wherever communities are near Department landholdings. By their very design, CWPPs are collaborative and the Department has provided technical expertise in support of efforts to help ensure that plans are effective. For example, the Fish and Wildlife Service (FWS) is a member of the Kenai Peninsula "All Lands All Hands" working group in southern Alaska. This group, representing ten different Federal, state, and local agencies, created a collaborative multi-year action plan that identifies and prioritizes on-the-ground activities intended to reduce wildfire risks to communities and the environment. The fuel breaks funded by the FWS and implemented by FWS, state and local contractors, provided the Alaska communities protection from three separate wildfires. The fuel breaks were effective in reducing fire behavior and provided an anchor point for suppression resources limiting potential loss to the communities of Soldotna, Sterling, and Funny River. For the 2014 Funny River fire, every dollar of Federal investment provided protection for $164 worth of residential and commercial structures.[1]

The National Wildfire Coordinating Group has chartered a number of working groups that foster cooperation between the Federal agencies, states, Tribal, and local partners. States are represented on these working groups, e.g., the Geospatial Subcommittee, which sets data standards for wildfire incidents. These standards allow for the seamless integration of Federal, state, and local data to permit interoperable online collaborative geographic information systems (GIS) that use mobile phone, tablet and other computer systems. Coordination of data used in GIS allows for safer and more efficient wildfire suppression operations in a manner parallel to using mutually compatible radio frequencies and compatible hose fittings on wildland fire

[1] Saperstein, Lisa, Brett Fay, Josh O'Connor, and Brad Reed. Fuels Treatments Made Difference in Protecting Communities – 2014 Kenai Peninsula. Rep. N.p.: n.p., 2014. Print. U.S. Fish and Wildlife Service.

engines and hoses. To the extent practicable, systems use readily available, accessible technologies to help reduce costs and make the tools available to all users.

While the Cohesive Strategy and CWPPs represent collaboration and partnerships at the local, Tribe and state levels, the Wildfire Leadership Council (WFLC) represents cooperation and collaboration at higher organization levels that include agency executives and representatives from Tribal, state, and local governments. WFLC helps coordinate issues at the national or multi-state level, especially those issues that are inconsistently or less readily resolved at local levels. The mission of WFLC is to provide consistent implementation of wildland fire policies, goals, and management activities. WFLC provides strategic recommendations to help ensure policy coordination, accountability, and effective implementation of Federal wildland fire management policy in support of fire-adapted communities and resilient landscapes.

Fuels Management and Forest Health

Our partnerships with other Federal agencies, Tribes, states and local governments, and other stakeholders are increasingly important as we implement an integrated WFM program. By focusing on collaborative landscape-level treatments that remove unnaturally stocked forests and woodlands, maintaining previous treatments, and allowing wildfire to occur at the appropriate intervals and intensities, we can better protect the health of the landscape and the safety of the public and our firefighters. We believe that over the long-term this strategic approach will help manage wildland fire and the increasing costs associated with post-fire rehabilitation.

Fuels management is an economic investment that, when successfully implemented, can provide cost-effective benefits to the American people and to Federal, Tribal, state and local lands by managing the negative effects of unnaturally high intensity wildland fire. For example, a report from Northern Arizona University on the 2010 Shultz Fire states: *"…it is sobering to note that by treating a significant portion of the Schultz Fire imprint with an investment of $15 million could have greatly reduced the cost of the Schultz Fire and avoided the damage and loss of life associated with post-fire flooding that is now conservatively estimated to be between $133 and $147 million."*[2]

Examples of fuel treatments include the use of prescribed fire, thinning of overstocked stands in areas with critical wildlife habitat, removing trees encroaching on meadows or wetlands with significant resource value, and controlling invasive weeds – including through native seed supply – that degrade habitat, compete with native vegetation, and increase the risk of wildfire. In FY 2016, more than 1 million acres of Department lands were treated to address or maintain desired resource conditions; so far in FY 2017, more than 700,000 acres have been treated with additional work scheduled this coming fall. These projects play a critical role in influencing

[2] Combrink, Thomas, Cheryl Cothran, Wayne Fox, Jeff Peterson, and Gary Snider. "A Full Cost Accounting of the 2010 Schultz Fire." (May 2013): n. pag. Web. <http://franke.nau.edu/images/uploads/rpi/AFullCostAccountingOfThe2010SchultzFire.pdf>.

wildfire behavior, enhancing the safety and effectiveness of wildfire response, reducing wildfire risk, and safeguarding our communities.

Veterans

The Department is a leader in providing training and job opportunities for veterans who wish to continue their service to our country. We will continue our efforts to emphasize the hiring of veterans to fill the ranks of our firefighting forces. Through the Department's partnership with Team Rubicon, an organization founded by military veterans, the Bureau of Land Management has provided Wildland Firefighter Type I and II training and certification for over 800 veterans. Almost $1.4 million has been provided for training and fire assignments over the past three years and 269 veterans have been deployed on incidents.

One of the largest accomplishments has been the successful placement of 74 trained veterans who competed for and accepted Federal jobs. Eight veteran wildland fire crews are stationed in Arizona, California, Montana, Nevada, Oregon, South Dakota, Washington, and Wyoming. We take great pride in the role these men and women play in our wildland fire community and we look forward to working with Team Rubicon on continuing this important program.

Use of Emerging Technologies in Wildland Fire Management

OWF has been actively engaged in supporting the development of emerging technologies in all facets of wildland fire management from planning to suppression operations to post-fire burned area rehabilitation. The use of technology is quite extensive and only a handful of examples are included in this testimony.

The Department's Office of Aviation Services, in cooperation with Department agencies, has successfully carried out a number of demonstration projects that document the effectiveness of using UASs and optionally piloted aircraft to improve wildland fire management operations and the safety of firefighters. The Department has initiated the successful integration of small UAS technology in support of wildland firefighting, including developing specifications for a government-owned fleet of UAS aircraft; training 42 wildland firefighters from around the country as UAS operators who will have access to UAS fleet assets during the 2017 fire season; leading the development of an interagency fire UAS operations guide to facilitate coordination between Federal and state agencies when using UASs on wildland fires; and prototyping the deployment of small UASs embedded with wildland firefighters to enhance their tactical situational awareness. The Office of Aviation Services is also building on Department of Defense operational capabilities as we explore innovative and economic uses of technologies.

One potential near-term use of UASs is their effectiveness at detecting and mapping wildfires in heavy smoke conditions, particularly during evening and nighttime operations. Aircraft equipped with infrared technology provide the ability to take action during these low visibility times. When

large fires may be a priority for nighttime infrared flights, the UASs, with relatively lower operational cost, may be deployed to multiple fires while they remain small. In the long-term, larger UASs have the capability to deliver fire retardant and cargo in a cost-effective manner and in environments that may prohibit the safe use of larger piloted aircraft. In each of these cases, firefighter safety remains a primary focus, both for those on the ground and those who might otherwise be in aircraft deployed on incidents.

Building on recent initiatives to prevent privately operated UASs from interfering with Federal, state, and local wildland firefighting operations, the Office of Aviation Services has expanded "Current Wildland Fires," a program which provides location data on any wildland fire reported in the last eight days. The data is in near real-time map format and is accessible through the Geoplatform ArcGIS Online Organization. This initiative informs drone operators where not to fly so that they can avoid incursions on wildland fires, which has become a growing problem.

Innovative uses of technology do not always require unfamiliar, expensive or extremely sophisticated components. One example of off-the-shelf technology that may save firefighter lives is the use of Global Positioning System (GPS). The FWS used GPS transmitter collars to monitor the locations of multiple firefighters, vehicles, equipment and aircraft during wildfires and prescribed fires. The system proved itself as an important safety tool during its first field trial in heavy fuels in the southeast when it was used to direct a firefighter lost in unfamiliar terrain to safety.

Using webcams, the U.S. Geological Survey is helping to coordinate a wildfire monitoring system with the Department, the U.S. Forest Service and the State of California. Real-time observation cameras are used to monitor fire occurrence and smoke, and to help forecast air quality conditions over a broad area in the Sierra Nevada Mountains. Similar uses of webcams occur regularly on individual wildfires nationwide, where the data are used by the states and by Air Resource Advisors assigned to work with incident management teams.

Conclusion

This concludes my statement. Thank you for your support to the Department's Wildland Fire Management Program and for the opportunity to testify before this Committee. I welcome any questions you may have.