



U.S. Department of the Interior
Bureau of Land Management

BLM Fire Communication Strategy

Vision

Caring for our people and public lands as the world's premier wildland fire program.

Mission

The BLM Fire mission is to provide the BLM superior leadership, management and operational capability in all areas of fire and aviation in order to accomplish the full range of BLM resource management activities.



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Introduction

The Bureau of Land Management Fire and Aviation program (BLM Fire) is the largest and most complex fire program within the Department of the Interior (DOI). The BLM represents 61% of DOI's fire-related workforce and is directly responsible for fire management on more than 245 million acres. This land is commonly intermixed with other federal, state, and local jurisdictions, making partnerships and collaborative efforts crucial to the mission of safety and fire management. Overall, BLM Fire implements fire protection on approximately 650 million acres of public land with other fire management agencies.

BLM's Fire and Aviation Directorate (FAD), located at the National Interagency Fire Center (NIFC), is led by a Senior Executive Service (SES)-level assistant director, along with one deputy assistant director and two senior fire advisors - one located in Washington, D.C. and the other at BLM West offices in Grand Junction, Colorado. BLM Fire leadership reports up through the BLM deputy director and director to the DOI. BLM Fire manages program budget at a national scale, sets policy and program standards, and works closely with DOI Office of Wildland Fire (OWF), DOI sister agencies, the USDA Forest Service (USFS), state and other organizations. BLM has the largest number of employees of the eight primary partner agencies at NIFC.

FAD establishes national program direction, which is implemented within each BLM state; BLM state directors, district managers and fire management officers manage the fire resources and implement program and resource priorities on the ground. FAD is composed of several primary programs with budgets allocated by congress, predominantly: Preparedness, Suppression and Fuels Management. Other programs associated with BLM Fire include Fire Facilities, Emergency Stabilization and Burned Area Rehabilitation, and the Joint Fire Science Program (JFSP). Each supports the overall fire program, while FAD manages the program holistically to promote accomplishment of program objectives and career opportunities and growth for employees.

- The Preparedness program includes personnel, training, equipment, planning and all other elements necessary to maintain a capable and effective fire response and management organization.
- The Suppression program is funded separately and includes actual direct fire suppression costs.
- Fuels Management includes science-based efforts to manage vegetation to promote fire-adapted communities, create resilient landscapes, and to support safe and effective wildfire response.
- Construction and maintenance of facilities necessary to support firefighters and the fire organization falls under the responsibility of Fire Facilities.
- Emergency Stabilization and Burned Area Rehabilitation includes post-fire emergency activities to stabilize soil and vegetation and to restore landscapes damaged by wildfire.
- The JFSP focuses on identifying critical issues and funding science that can provide meaningful information to fire managers.



Communication Strategy Purpose

This communication strategy provides consistent messaging to help BLM employees communicate about the BLM Fire program both internally and externally. The below information will be updated annually to be used as a communication source for program highlights, key messages, talking points, and FAQ responses.

It's important to ensure consistent terminology within the BLM Fire program and therefore, BLM employees should use the term "BLM Fire" to describe the program versus "BLM Fire and Aviation," or "BLM FA" and so on. For more specific BLM Fire program terminology/spelling, writing standards and other BLM Fire related communications and writing guidance, please refer to the [BLM Fire Style Guide](#).

National Interagency Fire Center

NIFC, located in Boise, Idaho, is the nation's support center for wildland firefighting – though it is technically more of a place than an organization. NIFC is the national fire management and coordination headquarters for eight partners including the BLM, the U.S. Fish and Wildlife Service (USFWS), Bureau of Indian Affairs (BIA), National Park Service (NPS), USDA Forest Service (USFS), National Association of State Foresters, U.S. Fire Administration (FEMA), and the National Weather Service (NOAA). Additionally, a Department of Defense (DOD) liaison works at NIFC to help coordinate military support for fire suppression when needed. Working together, these partners oversee fire response, coordination and management on nearly 650 million acres – roughly 30% of the nation's land area - of federally managed public land and countless acres of adjacent or intermixed state, county and private lands.



The Jack Wilson building at the National Interagency Fire Center in Boise, Idaho. Photo by Carrie Bilbao, BLM

NIFC is often referred to as the epitome of interagency cooperation and partnership and is visited by fire officials and dignitaries from around the world who study how operations are conducted at the center. Combined, there are approximately 650 employees at the site, with almost half being BLM employees, though these numbers can vary depending on seasonal hiring and staffing needs.

Below you will find an overview of the BLM Fire program, including core programmatic operations and other focus areas.



Key Messages

- The BLM Fire program's top priority is the safety of firefighters and the public.
- BLM Fire is the largest program within the DOI, representing 61% of the DOI wildland fire-related workforce.
- The BLM manages 245 million acres of public lands, predominantly in the western United States and Alaska; wildfire is prevalent across much of this landscape.
- Overall, BLM Fire implements fire protection on approximately 650 million acres of public land with other fire management agencies.
- The BLM's fuels management work is critical considering the vast spread of wildfire risk throughout the West, as the BLM works to address 70% of DOI's wildfire risk and accomplishes more than half of the DOI's fuels management activities.
- The BLM Fire program is committed to a culture of excellence, founded upon a professional, diverse, and inclusive workforce to successfully meet the BLM mission and vision.
- The BLM Fire program integrates with natural resources programs and external partners to enhance the effectiveness of fuels and vegetation management and to accomplish program goals.
- The BLM Fire program conducts fire suppression and fuels management to preserve and protect a diverse array of ecosystems and special public lands.
- Sagebrush rangelands are one of the most sensitive and vast ecosystems managed by the BLM, and the health of these landscapes is at risk due to the wildfire-invasives cycle.
- The BLM Fire program is working to preserve rangeland ecosystems and other sensitive landscapes throughout the West through proactive fuels treatments, active fire suppression efforts, and partnerships.



The Craig Hotshots construct fireline on the Dixie Fire in California. Photo by Matt Irving, contract photographer, BLM



Talking Points

BLM Fire Program

- The BLM is directly responsible for fire management on more than 245 million acres. This land is commonly intermixed with other federal, state, and local jurisdictions, making partnerships and collaborative efforts crucial to the mission of safety and fire management.
- BLM-managed public lands account for the largest wildfire risk within DOI - BLM has 72% of lands with high and very high wildfire risk within DOI (see the [2020 Wildfire Hazard Potential Map](#)).
- The BLM works with stakeholders and counties to help communities prepare community wildfire protection plans and interagency educational workshops that support wildfire mitigation, planning and prevention.



A beautiful sunset on Green Mountain in Wyoming. Photo by Sarah Wempen, BLM

BLM Fire Mission

- The BLM Fire program remains committed to the goals of the [National Cohesive Wildland Fire Management Strategy](#), which seeks to create resilient landscapes, fire adapted communities and safe and effective wildfire response. The strategy's vision is to safely and effectively extinguish unwanted fire; to use fire when and where allowable to achieve long term goals; to manage our natural resources; and as a nation, to live with wildland fire.
- The BLM has taken action to ensure that the bureau's wildland fire organization is ready to respond to the 2022 fire year by maintaining close ties with partners, completing hiring of wildland fire employees both permanently and seasonally, and providing training to develop and support the workforce.
- The BLM Fire program is a critical component of public lands management; about one third of BLM's overall budget and employees are fire program related.
- The BLM shares stewardship of the wildland fire environment, ownership of the challenges it presents, and a commitment to meeting those challenges with federal, state, tribal, local and NGO partners. The end goal is a group of partners who work together in an "all lands, all hands" approach to fire management, including fuels management, while respecting ownership values.
- Managing wildfires is inherently complex and challenging and is compounded by many factors, including year-round fire activity, increasing size and severity of wildfires, and expanding risk to communities, natural resources, and firefighters.



Wildfire Suppression and Firefighting Resources

- Many public lands managed by the BLM involve sensitive ecosystems, where invasive weeds have severely altered the natural fire cycle.
- Concurrently, the West is rapidly becoming more populated, with more and more people moving into the wildland urban interface (WUI) where wildlands are interwoven with human development and growth.
- Human-caused wildfires compose, on average, about 80% of all wildfire ignitions, and typically occur near homes and private property. These issues have created a widespread need for safe, rapid and efficient fire suppression operations.
- The BLM uses numerous wildland fire suppression resources specific to the Bureau's needs. Wildland fire engines, heavy equipment, hotshot and hand crews, smokejumpers, and helitack crews comprise the majority of BLM Fire's wildland firefighting resources and workforce.
- The BLM and its interagency partners rely on non-fire employees during periods of high fire activity. This group, composed of non-fire BLM employees, other federal workforce, and city, state and local personnel with wildland fire management expertise, provides critical wildland fire management work and support on large wildfire incidents throughout the year.
- To meet its wildland fire-related challenges, the BLM conducts fuels management actions and employs highly trained professional personnel who are committed to managing wildfire in the most safe, effective and efficient manner.

Wildfire Suppression During the COVID-19 Pandemic

- The COVID-19 pandemic created significant challenges during the 2020 and 2021 fire years. Some of these challenges will continue until the pandemic subsides.
- As leaders, we see challenges as opportunities, and the 2022 fire year is an opportunity to fully embrace core risk management principles and employ new decision support tools and tactics.
- Wildland fire personnel are an inherently itinerant workforce; they must mobilize around the country as wildland fire activity occurs. No single jurisdiction or unit possesses enough fire resources to manage extreme wildfire events; they all rely on interagency partners and shared resources to successfully suppress large wildfires.
- Wildland fire personnel also work in close proximity to one another, as wildland fire suppression by its very nature requires crew cohesion and physically close contact. BLM Fire adjusted operations to meet the challenges created by the global pandemic.
- In 2020, BLM Fire developed critical COVID-19 guidance for all employees, which has been updated throughout the pandemic, including suggestions to operate as family units; use of personal protective equipment; hygiene practices; testing and quarantine procedures; and CARES Act funding to ensure isolation and other necessary logistics. These measures greatly reduced outside exposure to the virus and thus, decreased spread potential within BLM Fire ranks.
- BLM Fire will continue with its COVID-19 mitigation strategies this year, including a strategy to isolate and quarantine fire personnel if they become sick while working. These measures proved to greatly reduce COVID-19 spread among wildland fire personnel, particularly during two above-normal fire years.



- BLM Fire is encouraging that all wildland fire personnel get vaccinated against COVID-19 for their own safety, for their co-workers' safety, and to preserve the health of all those they come in contact with.
- All wildland fire personnel should visit the Wildland Fire Medical and Public health Advisory Team (MPHAT) COVID-19 Prevention and Management During Wildland Fire Operations web page for the most current COVID-19 prevention and mitigation measures and guidance: <https://www.nwcg.gov/coronavirus>.

Budget, the Fire Year and Changing Workforce Needs

- The cost of wildfire suppression has steadily increased over the past decade as fire seasons have evolved into fire years, more severe in intensity and length.
- In fiscal year 2021, the DOI spent approximately \$648 million in wildland fire suppression with the BLM spending \$446 million of that amount.
- The DOI's fiscal year 2022 suppression allocation will be \$383,657,000 with an additional \$310 million in Suppression Reserve Funds.
- Longer, more intense fire activity, and the need to manage and reduce fuels across a vast, more-flammable landscape due to establishment of invasive plants, has increased pressure on the wildland fire workforce, which has traditionally been centered heavily on a temporary or career seasonal workforce. Now, fire and fuels work are year-round.
- It is well recognized in the wildland fire community that a new model is needed to provide employees with career stability and upward mobility, to promote work life balance, and long-term careers in fire or resource management. These issues have resulted in the need to transform the wildland firefighting workforce.
- The fiscal year 2021 budget included \$13 million (allocated to BLM) to begin its workforce transformation. To meet workforce transformation goals, the BLM would require another \$35 million of Preparedness funding.
- This initial funding, and potential future funding, allows the BLM to add more full-time equivalent firefighters by converting existing temporary-seasonal firefighters into permanent positions (career appointments) and hiring some new permanent positions.
- A more permanent, year-round wildland fire workforce will be better poised to meet current BLM Fire program demands while also providing better job opportunities and stability to our workforce, improving recruitment, retention, and morale across the program.
- BLM is conducting workforce transformation using the 2021 appropriation and adding more full-time equivalent firefighters by converting existing temporary-seasonal firefighters into permanent positions (career-seasonal appointments) and hiring some new permanent positions.



The Ruby Mountain interagency hotshot crew gets a briefing during the Dixie Fire, Lassen National Forest. Photo by Joe Bradshaw, BLM



- While there will still be a seasonal need for wildland fire management work, particularly during periods of increased fire activity, the BLM Fire program is working to develop a workforce that is available throughout the year.

Fire Personnel Pay

- Wildland firefighters are our most important asset – without them, we cannot protect lives, communities, infrastructure and precious natural resources from unwanted wildfires.
- Federal wildland fire personnel wages have not kept up with inflation and private industry pay. The BLM has been working on this issue for many years.
- In January 2022, the Office of Personnel Management implemented President Biden’s Executive Order on Protecting the Federal Workforce to promote a \$15 per hour minimum wage for federal employees, which the BLM has been working towards for many years.
- The BLM Fire Program is working to complete these long-term pay increases to offer a livable wage commensurate with wildland fire employees’ hard work and dedication.



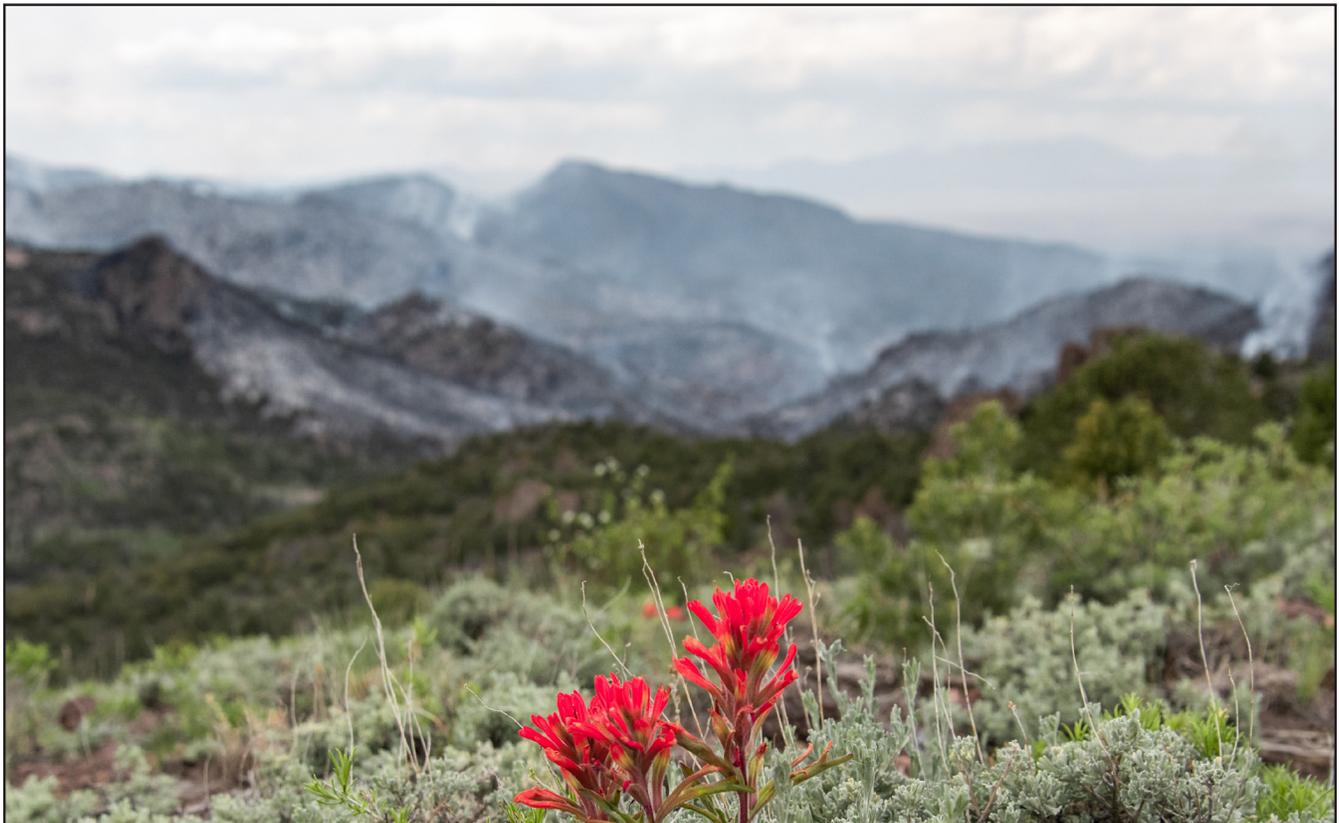
BLM firefighters on the Rock Path Fire in Utah. Photo by Lindsey Rush, BLM.

Bipartisan Infrastructure Law

- The Bipartisan Infrastructure Law provides \$1.5 billion to the Department of the Interior’s Wildland Fire Management Programs to address wildfire risk reduction. These funds will be used to reduce wildfire risk to communities and landscapes by making historic investments in landscape restoration, hazardous fuels management, early wildfire detection, and post-wildfire restoration activities across America’s national parks, forests, and grasslands, as well as investing in our federal wildland firefighters.
- In addition to the wildfire risk reduction BIL funding, the BLM Fire program is working across all BLM programs to collaborate on the BIL ecosystem resilience funding that will be allocated to other BLM programs.
- By making smart investments in critical infrastructure and wildland fire response, the Biden-Harris administration’s Build Back Better Agenda is helping better prepare communities and ecosystems against the wildfire threat.
- The Bipartisan Infrastructure Law signed by President Biden includes more than \$1.5 billion for DOI federal wildland fire management programs so that we can improve firefighter pay, reduce hazardous fuels on the landscape, detect wildfires earlier, support local communities in addressing wildfire risk, and restore lands after wildfires.
- We owe the brave women and men on the frontlines the right tools and training to protect our communities and our lands from the increasing wildfire threat. The Bipartisan Infrastructure Law helps deliver on that promise.



- The Bipartisan Infrastructure Law more than doubles the amount of funding targeted for important wildland fire research and science through the Department’s Joint Fire Science Program.
- As climate change drives the devastating intersection of extreme heat, drought, and wildland fire danger across the United States, creating wildfires that move with a speed and intensity previously unseen, the Bipartisan Infrastructure Law provides a historic investment in the Department of the Interior’s Wildland Fire Management Program.
- The Bipartisan Infrastructure Law provides the following to DOI:
 - Nearly \$1.5 billion over the next five years for fuels management
 - \$120 million for workforce reform
 - \$245 million in preparedness, including workforce reform and \$15 million for satellite fire detection and fire monitoring equipment
 - \$878 million for fuels management
 - \$325 million for burned area rehabilitation
 - \$10 million to the Joint Fire Science Program administered jointly with USDA



View of Wilson Creek Fire near Pioche, Nevada. Photo by Ben Hoke, BLM



Implementation Highlights

2021

- The Departments of the Interior, Agriculture and Homeland Security Federal Emergency Management Agency (FEMA) announced the [establishment of a new Wildland Fire Mitigation and Management Commission](#).
- Joint DOI/USDA/OPM workgroups established to:
 - › develop classification standards for a new wildland fire occupational series,
 - › convert no fewer than 1,000 DOI and USDA seasonal firefighters to permanent, year-round positions, and
 - › Increase the pay for wildland firefighters by the lesser of either \$20,000 or 50 percent if the position is in an area with recruitment and retention challenges.

2022

- Coordination with the Intertribal Timber Council, USFS and other partners to develop landscape scale cross-jurisdictional fuels treatment strategies.
- Fuels Treatment Targets: March 2022 – OWF will establish a five-year monitoring, maintenance, and treatment plan.
- Workforce Reform Targets: May 2022 - DOI-Forest Service will develop a wildland firefighter job series in coordination with OPM
- [Annual joint DOI/USDA fire operations briefing and Leader’s Intent memo to Federal Fire Programs](#)



Heavy Equipment works on a project for the Cedar City BLM Fuels program. Photo by Melanie McDaniels, BLM



Milestones

The law establishes several deadlines that will serve as milestones for implementation, including:

- Beginning October 1, 2021:
 - › DOI and Forest Service will convert no fewer than 1,000 seasonal firefighters to permanent, year-round positions
 - › Increase the pay for wildland firefighters by the lesser of either \$20,000 or 50 percent if the position is in an area with recruitment and retention challenges
- Wildland Fire Mitigation and Management Commission
 - › Established on Dec 15, 2021
 - › Announce members by Jan 15, 2022
 - › Issue report on recommendations within one year of first meeting
- 120 days after enactment, March 14, 2022, establish a joint DOI-Forest Service five-year monitoring, maintenance, and treatment plan
- 180 days after enactment, May 13, 2022, DOI-Forest Service will develop a wildland firefighter job series in coordination with OPM
- October 1, 2022 DOI-Forest Service develop and use strategies to minimize firefighter line-of-duty hazards and address mental health needs and post-traumatic stress care.
- Annually December 31, 2022-2026 DOI-Forest Service submit a report to Congress on the acres treated using BIL projects
- November 15, 2026 DOI-Forest Service publish long-term, outcome-based monitoring, maintenance, and treatment strategy for wildland fire.



A waterfall along the Snake River in Idaho. Photo by Matt Irving, contract photographer, BLM



BLM Fuels Management

- The BLM Fuels Management program, an integral part of the BLM’s wildland fire management program and organization, works collaboratively with BLM’s natural resource programs (e.g., wildlife, invasives, rangeland conservation, forestry, etc.) to meet mutual goals, such as landscape restoration, conservation and climate resiliency. The fuels management program works with other interagency partners, land managers and communities to reduce wildfire risks across landscapes.
- The program is focused on reducing wildfire risk, improving wildfire resiliency and promoting fire-adapted communities and supports:
 - › Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” to conserve “at least 30 percent of our lands and waters by 2030.”
 - › The Secretary’s priority on Wildland Fire Preparedness, “Increasing the resiliency of communities at risk for wildfire.”
 - › BLM’s restoration, conservation and climate priorities.
 - › The National Cohesive Wildland Fire Management Strategy.
 - › The Western Governors’ Association National Forest and Rangeland Management Initiative.
- The BLM fuels management program protects lives, communities and our precious natural resources through well-planned fuels treatments and partnerships designed to reduce wildfire risk throughout the West.
- These science-based BLM fuels treatments promote climate resiliency across landscapes and communities, invest in our precious landscapes, protect wildland firefighters, and focus on restoration across all land ownership.
- The BLM’s fuels treatments are focused on restoring landscapes through collaborative, partnerships that create jobs, promote wildfire resiliency, and reduce the catastrophic wildfire threat. More than 50% of BLM fuels treatments are implemented with assistance from contractors and non-federal partners.
- The BLM’s Fuels Management program conducts a wide variety of vegetation treatments using mechanical, biological and chemical tools, and prescribed fire.
 - › Mechanical projects compose about 50% of all treated acres and include chipping; crushing; seeding; hand pile; lop and scatter; machine pile; mastication; mowing; and thinning. The average size of these treatments is about 600 acres, and the average cost is about \$75 per acre.



Wildlife returns to an area after a fuels treatment. Photo by BLM Utah



- ▶ Chemical and biological treatments compose about 25% of all BLM treated acres and include herbicide application and targeted grazing. The average size of these treatments is about 1,300 acres and the average cost is about \$30 per acre.
- ▶ Prescribed fire and fire use treatments compose about 25% of all BLM treated acres and include managed wildfire, broadcast burning pile and jackpot burning. This treatment size averages about 1,400 acres and costs about \$15 per acre depending on the ecosystem and other factors. Many BLM-managed ecosystems are experiencing too much wildfire, such as the Great Basin, and therefore, prescribed fire is not a treatment option in many areas.
- The program includes creating fuel breaks which are an important tool to restore, conserve and maintain landscapes and reduce catastrophic wildfire impacts.
- Fuel breaks:
 - ▶ Protect resources and investments, such as post-fire seeding, and provide safe access for firefighters.
 - ▶ Promote resilient landscapes.
 - ▶ Reduce fuel loads by removing trees, shrubs, pinon-juniper and invasive species, reducing wildfire risk near communities, infrastructure and critical natural resources.
 - ▶ Interrupt the fire-invasives cycle in areas where fire frequencies are significantly increased from historic fire regimes.
 - ▶ Involve several different methods, such as mechanical treatments or using herbicide plus seeding and planting less flammable species to restore rangelands and break the fire-cheatgrass cycle.
 - Are typically associated with already disturbed linear features.
- Fuels treatments are planned and implemented in collaboration with other BLM programs, and federal, state, local, and non-governmental collaborators.
- The BLM accomplishes much of its fuels management work with partners and contractors, providing an economic boost to local communities.
- The BLM's Fuels Management work is critical considering the vast spread of wildfire risk throughout the West, as the BLM works to address 70% of DOI's wildfire risk. BLM focuses fuel treatments in high priority landscapes with high wildfire risk.
- This risk is compounded by invasive weeds, particularly in the Great Basin. Since 2000, over 15 million acres of shrublands or grasslands have burned, and since 2015, almost 8 million acres of sagebrush have burned in wildfire.
- Cycles of frequent wildfire followed by invasive species are impacting vast areas of the western United States, particularly in the sagebrush-steppe ecosystem. Although much of the attention on wildfires in the West is focused on forested lands,



BLM firefighters walk the line during the Ray Mesa prescribed fire in Utah. Photo by BLM Utah



almost half of the acres burned occurred on shrublands or grasslands. Specific to DOI-managed lands, more than 70% of acres burned by wildfires are shrublands or grasslands.

- Historically, fire return intervals across these landscapes have varied, depending on the area's elevation and moisture patterns; typical fire return intervals vary between tens to hundreds of years.
- However, contemporary fire cycles have substantially deviated from historic trends. Fire return intervals in the warmer/drier low-elevation sites are much shorter now (fires occurring every seven to 15 years) and do not allow time for full recovery. In the colder/moisture higher-elevation sites, the shift has been toward smaller and less frequent fire favoring woody tree encroachment.
- While these patterns are largely being observed in the Great Basin, cheatgrass is beginning to expand to higher elevations and additional areas are likely to be impacted in the future by this fire-invasive cycle.
- To address these fire-invasives challenges, the BLM continues to develop strong internal and external collaboration and coordination with local partners. The BLM is working across program areas to identify and treat fuels to enhance wildfire resiliency through invasive species management.
- Fuels management projects consider the full scope of work – planning, implementation, and monitoring – needed to achieve a coordinated landscape approach to reducing wildfire risk and restoring wildfire resiliency, and typically take several years to complete.
- The National BLM Fire Planning and Fuels Management division has outlined a plan to achieve at least 1-million-acres of fuels treatments annually on BLM-managed public lands, and to sustain that level of treatment for at least the next five years with expected funding increases.
- In fiscal year 2022, BLM is preliminary planning to treat approximately 800,000 acres and working to increase capacity to meet the 1-million-acre goal.
- By increasing fuels accomplishments, the BLM will improve firefighter and the public safety, reduce wildfire impacts and costs, and create long-term natural resource benefits. This plan will also involve adding contracting, grants and agreements capacity, as increasing fuels projects cannot be achieved without investing in these capabilities.
- In 2021, the BLM treated 870,226 acres of its planned 772,896 active management acres, which equates to 113% of the bureau's planned target acre total. Additionally, 45,959 acres of resource benefit were achieved in wildfires, inching the BLM closer to the one-million-acre target.
- In 2020, the BLM achieved more than 780,000 acres of active fuels management. In addition, there were 420,000 acres burned during wildfire that achieved resource benefit - all treatments totaling more than 1.2 million acres adding on to 2019's record of more than 846,000 acres treated.



BLM fuels project improves the health of rangeland in Utah. Photo by Matt Irving, contract photographer, BLM



The fuels program accomplishes 600,000 to 900,000 treatment acres annually – program work includes planning and inventory, implementation, and monitoring. Depending on the location and type of fuel type, costs can vary considerably. For example, wildland urban interface (WUI) fuel treatments are generally more expensive.



Mechanical Treatments

50%
of BLM acres
accomplished

Average size:
600 acres

Cost:
\$75/acre

Treatments include chipping, crushing, seeding, hand pile, lop and scatter, machine pile, mastication, mowing, and thinning.

Prescribed Fire/ Fire Use Treatments

25%
of BLM acres
accomplished

Average size:
1,400 acres

Cost:
\$15/acre

Treatments include managed wildfire, broadcast, pile and jackpot burning.

Chemical and Biological Treatments

25%
of BLM acres
accomplished

Average size:
1,300 acres

Cost:
\$30/acre

Treatments include herbicide application and targeted grazing.



Treatment Objectives

All treatment types are used to meet fuels and vegetation management objectives.

Conifer Removal, 34% of treatments - Remove invading conifers (typically pinyon and juniper) to promote wildfire resilience and improve habitat.

Invasive Species Removal, 21% of treatments - Remove invasive species (e.g., cheatgrass) and establish native species to reduce risk of fire spread, promote wildfire resilience, and improve habitat.

Fuel Breaks, 9% of treatments - Strategically located, typically alongside roads, to provide areas for firefighters to safely suppress wildfires.

Protection, 10% of treatments - Protect values at risk from wildfires (e.g., WUI, wildlife habitat, etc.).

Ecosystem Restoration, 26% of treatments - Restore ecosystem components to improve wildfire resilience.

Average size refers to 35 acres treated per mile.
Costs can vary widely depending on the particular site and specific treatment type – costs do not include any planning, inventory, or monitoring. On any one acre, there are likely multiple treatments (e.g., mechanical, followed by herbicide, followed by seeding).
Forest and woodland – \$1000/acre (combining the various multiple treatments) and requires infrequent (10-30+ years maintenance)
Rangeland \$100/acre (combining various multiple treatments) and requires frequent maintenance (1-5 years)

BLM Fuels Program Treatment Pathway





Emergency Stabilization and Rehabilitation

- The BLM's Emergency Stabilization and Rehabilitation (ESR) program designs and implements post-fire management activities intended to improve ecological trends and land health.
- Emergency stabilization involves emergency treatment that minimizes threats to life or property, or stabilizes and prevents unacceptable degradation to natural and cultural resources resulting from the effects of a wildfire.
- Post-Wildfire Recovery includes wildfire suppression activity damage repair, emergency stabilization, burned area rehabilitation, and long-term restoration.
- Burned Area Emergency Response (BAER) is the response to imminent post-wildfire threats to human life and safety, property and critical natural or cultural resources and, when possible, prescribes actions to manage unacceptable risks. BAER includes emergency stabilization and burned area rehabilitation.
- Post wildfire problems ranging from soil erosion to a decrease in water quality and possible flash flooding are assessed by a BAER team to produce a plan to protect public safety, prevent further degradation of the landscape, and mitigate cultural resource damage.
- BAER assessment teams are determined by the complexity of the fire, burned area conditions, and the values potentially threatened by post-fire effects.
- BAER teams may include soil, hydrology, geology, engineering, wildlife, botany, environmental compliance, GIS, and archeology specialists. BAER Teams help determine whether the post-fire environment constitutes significant risk to human life, safety, property, or critical natural and cultural resources. The specialists produce an integrated plan designed to mitigate the threat and reduce risk.
- Most wildfires will not require the services of a BAER team because the anticipated post-fire impacts to natural and cultural resources from that specific fire are not at an unacceptable level.
- The Bipartisan Infrastructure Law provides \$325 million to DOI for burned area rehabilitation. BLM will receive a portion of this funding, which will allow the bureau to enhance its BAER work throughout the West.



A helicopter applies herbicide during emergency stabilization and rehabilitation efforts on the Boise District, Idaho. Photo by Caleb Ashby, BLM



Preparedness Resources

- Preparedness is the umbrella covering the spectrum of wildland fire training, safety, communications, fire weather and intelligence, crew development, engines and heavy equipment, supplies, tools, aviation, facilities and more.
- The BLM operates approximately 320 wildland fire engines, including 22 Super Heavy engines capable of carrying 2,000 gallons of water in rough terrain.
- The fleet also supports 21 dozers for fireline construction and 23 water tenders to refill engines working in areas where water sources are scarce.
- Preparedness personnel include an estimated 2,975 for 2022, including primary firefighters and critical support staff, as well as 150 smokejumpers.
- Aviation assets owned or contracted by the BLM include an anticipated 34 Single-Engine Air Tankers (SEAT); four water-scooper air tankers; 25 helicopters of various sizes and capacities; and 31 other utility or tactical fire aircraft including smokejumper and fixed-wing airplanes. Fire aircraft are managed as national resources and are moved around the country as needed for effective fire response and support.
- The BLM operates two fire boats in Arizona. The Colorado River District is the only BLM district with a fire boat. Fire boats are used to access wildland fires through existing waterways.

BLM Fire suppression resources



320 Engines



6 Veterans Crews



13 Hotshot Crews



150 Smokejumpers



34 RFPAs



31 Tactical Aircraft



25 Helicopters / 18 Helitack Crews



34 SEATs



23 Semi-Tractors



24 Water Tenders



21 Dozers



2 Fire Boats



Engines

- Large wildland fire engines and the crews who operate them are the backbone of the BLM Fire program, particularly in arid rangeland ecosystems.
- The BLM operates approximately 320 wildland fire engines, 146 of which are rugged Type 3 /4 “heavy” engines and 26 Type 3 interface engines capable of carrying about 1,000 gallons of water, 22 Super-Heavy Engines capable of carrying 2,000 gallons of water and 126 Type 6 engines or “light’ engines capable of carrying 300 gallons of water.
- Most of the BLM’s wildland fire incidents occur in rangeland ecosystems and terrain where wildland fire engines are the most efficient fire suppression tool.
- Rangeland ecosystem wildfires can expand quickly. These fast-moving wildfires require mobile fire suppression resources capable of transporting ample water supply, which is why Type 3/4, or “heavy” wildland fire engines comprise most of the BLM’s wildland fire suppression resources.
- The BLM’s wildland fire engine crews are strategically located throughout the western United States, with many assigned to “outstations” in rural and remote areas of Montana, Wyoming, Idaho, Oregon, Nevada, California, Utah, New Mexico, Colorado, Washington, and Arizona.
- Engine operations are typically specific to the ecosystem, topography, and weather situation. In rangelands or flat, more accessible terrain, BLM engines drive alongside wildfires, spraying water on active flames and then returning later to ensure all hot spots are extinguished.
- In steeper, more inaccessible terrain, engines are often used to establish hose lays which pump water to the main fire area and for mop-up and containment operations.
- BLM Fire is currently implementing Location Based Services (LBS) technology, which uses satellite terminals to provide the location of fire suppression resources to provide for safety in the event of an emergency.
- BLM engines, hotshot/veteran superintendent trucks and crew hauls, helitack superintendent trucks and support vehicles, dozers, tractors (semi), and water tenders now have a satellite terminal installed to provide real-time position and use information.



A BLM engine crew monitors the West Rim prescribed fire near Delores, Colorado. Photo by Ian Barrett



Heavy Equipment

- In addition to engines, the BLM uses other types of heavy equipment to assist in wildland fire suppression and burned area restoration projects.
- Dozers and tractor plows range in size and are primarily used for plowing fireline around a wildland fire. They can create a very wide firebreak in a short amount of time, given appropriate terrain.
- After a fire, dozers and tractor plows can be used to disperse native grass and plant seed over the burned area to assist in vegetation rehabilitation.
- The BLM operates 21 dozers and 23 tractor plows in seven western states.
- Support water tenders can hold up to 4,000 gallons of water to refill engines and tactical water tenders can hold up to 2,000 gallons for fire suppression.
- Water tenders are typed depending on capacity to hold water. Tactical water tenders also are equipped with a foam proportioner system for effective wildfire suppression.
- The BLM operates 23 water tenders (tactical and non-tactical) in nine western states.



Heavy equipment helps with fuels management project. Photo by BLM Oregon and Washington

Hand Crews and Hotshot Crews

Hotshot Crews (Type 1)

- Hotshot crews (hotshots) consist of at least 20 personnel on each crew and are primarily used for wildland fire suppression, fuels reduction, and other fire management duties.
- Hotshots bring a high level of fitness and expertise to wildland fire management and are often placed in the most rugged terrain on the most active and challenging areas of a wildfire.
- Hotshot crews are assigned to complex wildfires, on all types of federally managed lands, as well as other managed lands, when needed.
- Hotshots meet stringent qualifications and work in some of the roughest and most remote terrain in the nation. These firefighters are highly mobile and trained to be self-sufficient with the necessary vehicles, gear, and tools. Hotshots' experience and training qualifies crews to conduct complex fire operations.
- Hotshot crews are transported to fires and incidents via crew-specific "buggies." Upon arrival in the vicinity of the fire, hotshot crews typically hike to the fire's location.
- There are 13 BLM Type 1 hotshot crews, including two Type 1 veterans crews. See "Veterans" section for more information.



Hand crews (Type 2 and Type 2 Initial Attack)

- Hand crews normally consist of 18-20 crewmembers and are used for a variety of wildland fire operations.
- These crews are assigned duties on wildland and prescribed fires that primarily consist of constructing firelines with hand tools and chainsaws, burning out using drip torches and other firing devices, mop-up or clean-up, and rehabilitation of burned areas.
- Type 2 crews may not have as many qualifications or capabilities as Type 1 crews.
- Some Type 2 crews are assembled and work together all season, while others are assembled on an as-needed basis when resources are low. These rapid configurations can include individuals from different agencies assigned to the same crew.
- Type 2 Initial Attack (IA) crews are qualified Type 2 crews that also meet the qualifications for IA on wildland fire incidents.
- Hand crews are typically transported to fires via contracted buses. Upon arrival at the fire, they typically hike to the fire's location unless terrain or access requires helicopter transport.

Helitack Crews

- The BLM employs 18 helitack crews located in Wyoming, Idaho, Nevada, California, Utah, Montana, Oregon, Arizona, and Alaska.
- Helitack crews are wildland fires suppression crews that specialize in helicopter operations. Helitack firefighters are delivered to fires via helicopter and suppress wildfires with hand tools and chainsaws in coordination with helicopter bucket drops.
- A helitack crew provides land management agencies with a safe, highly skilled and productive aerial firefighting resource.
- Some helitack firefighters are trained to rappel from the helicopter to reach fires in remote locations. These firefighters are called heli-rappel crews, or rappel crews, and typically use a medium helicopter for fire operations. The BLM does not typically employ rappel crews since most BLM-managed public land is conducive to helicopter landing.
- Crews can range in size from seven to 10 people. Helitack crews may also be used to support prescribed fire operations or special projects requiring helicopters.
- Helitack crewmembers also know how to build cargo sling loads, execute hover hook-ups, calculate loads, compile crew manifests, and perform bucket work.



BLM helitack crew flies over the Crooked Creek fire in Montana. Photo by Colby Neal, BLM



Smokejumpers

- Smokejumpers are firefighters that dispatch to wildland fire incidents by jumping from airplanes using parachutes.
- Typically, these firefighters jump from 3,000 feet above the ground and are considered an initial attack resource.
- At least two years of firefighting experience is required before applying to become a smokejumper.
- Smokejumpers are considered a national resource and are dispatched from the National Interagency Coordination Center (NICC) at NIFC, though they often disperse to “sub-bases,” where they can be dispatched from a more remote or rural airport in areas where fire activity is expected.
- There are two BLM smokejumper bases: one in Boise, Idaho at NIFC and the Alaska Fire Service smokejumpers based in Fairbanks, Alaska, totaling about 150 BLM smokejumpers.
- These firefighters can deploy to wildfires with a minimum of two smokejumpers assigned to an incident. Depending on the airplane, eight smokejumpers can be dispatched to a wildfire in one mission.



Smokejumpers provide support on the Pilot Point Fire in Alaska. Photo by Pat Johnson, BLM

Aviation

All very large and large airtanker inquiries should be referred to USFS public affairs personnel. The national USFS airtanker public affairs contact is Stanton Florea: stanton.florea@usda.gov

- In addition to supporting the BLM’s natural resources work, aviation plays a critical role in wildland fire operations.
- Every year, the BLM Fire program conducts multiple-use mission assignments supporting wildland fire operations, resource work, and law enforcement efforts. With a ten-year average of over 22,000 flight hours per year, the program holds an exemplary safety record.
- For fiscal year 2021, the BLM’s Aviation program will manage aircraft or supervise contracts for 17 Type 3 smaller helicopters, 7 Type 2 medium helicopters and one Type 1 helicopter.
- The Type 1 helicopter will be stationed in Boise, Idaho, and staffed with a 24-person wildland firefighting crew. The helicopter increases BLM’s initial attack capabilities with an increased speed and range, as well as additional payload for water dropping and transporting firefighters.

Single Engine Airtankers

- National SEAT contracts are primarily managed by the BLM.
- In 2021, the BLM managed SEAT contracts for 34 exclusive use and 100 on-call aircraft. SEATs flew 11,854 flight hours delivering 11.5 million gallons of retardant and/or suppressants for all agencies.
- The BLM represented about 34% of the flight time and retardant use for the SEATs this year.



Unmanned Aircraft Systems

- Internal note: On June 10, 2019, the Presidential Determination No. 2019-13, pursuant to the Defense Production Act, determined that the “domestic production capability for small unmanned aerial systems is essential to the national defense.” With this order, pending further guidance based on completion of an ongoing review, the DOI fleet is grounded except for emergency operations. ***Because of this order, DOI communications has asked all DOI bureaus to avoid external promotion of UAS use, including wildland fire and prescribed fire operations.*** This means BLM should avoid posting UAS photos, videos, and other UAS-related work on all digital media platforms until the release of further DOI communications guidance.
- The BLM Unmanned Aircraft Systems (UAS) program was developed in 2015 to support resource and incident management initiatives.
- The BLM currently owns 335 UAS systems, with 146 qualified BLM UAS remote pilots, which are available for use in wildland fire operations and other natural resource programs. The BLM is also the proprietor of a call-when-needed (CWN) UAS contract, administered through the DOI Office of Aviation Services (OAS).
- Call-When-Needed (CWN) contracts allow the bureau to obtain fully contractor-operated and maintained small UAS to support wildland fire operations, search and rescue, emergency management, and other resource missions throughout the country.
- The BLM is using UAS capabilities to enhance fireline situational awareness, support strategic planning processes, create more accurate wildland fire maps, collect and display thermal and infrared imagery to detect hot spots along the fireline, document prescribed burn operations, analyze fire effects, provide orthophotos along with terrain and digital elevation models, enhance the fire investigation process as a mapping tool for origin and cause determination, and monitor active firelines.
- In fiscal year 2021, 31 agency UAS operators conducted 1,700 flights, totaling 386 flight hours in 18 states for support of wildland fire and emergency hazardous fuels reduction. The bureau has 144 pilots, but only about 20% of the qualified operators conducted flights this year.
- UAS equipment is embedded into interagency hotshot crews, wildfire modules, or stand-alone UAS Modules; examples include the Lakeview and Arrowhead Hotshot Crews and the Unawep Wildfire Module. BLM, NPS, USFS, USFWS, and DOI Office of Aviation Services (OAS) personnel often work together as UAS Modules.
- During the 2022 fire year, the BLM anticipates the use of UAS in wildland fire operations, prescribed fire projects, and other resource-based operations. Concurrently, the UAS program will continue wildfire operations integration with an interagency focus.
- BLM UAS operations are conducted in accordance with Secretarial Order 3379, FAA Small Unmanned Aircraft Rule (14 CFR, Part 107), and DOI OPM-11. Incident UAS operations are conducted in accordance with the Interagency Standards for Fire UAS Operations (PMS 515).



The Lakeview Hotshots use an unmanned aircraft system while assisting with a prescribed fire on the Osceola National Forest in Florida. Photo by BLM



UAS Incursions and Education

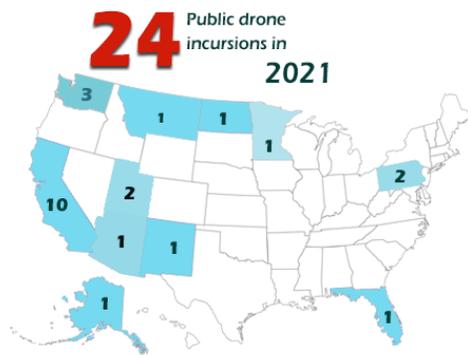
- Private citizen and media owned UAS are a perpetual safety issue for wildland fire managers, causing “incursions,” which force wildland fire aircraft to be grounded during critical wildland fire operations.
- In 2021, at least 24 documented UAS incursions occurred over or near wildfires. These numbers have decreased from a high of 41 incursions in 2016, though the issue remains a serious safety concern.
- To address this issue, the BLM’s External Affairs Office at NIFC conducts outreach campaigns focused on educating the public about the dangers of flying UAS near wildfires. Please visit the NIFC PIO Bulletin Board to obtain UAS-specific incursion communications materials:

<https://www.nifc.gov/fire-information/pio-bulletin-board/hot-topics>



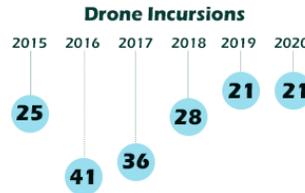
2021 UAS Incursions

If YOU Fly, We CAN'T



41 The most drone incursions were reported in 2016

29 The 6-year average number of drone incursions each year



17 Number of times aerial firefighting efforts were shut down in 2021

Type of Incident with Incursion

18 wildfires*	1 initial attack
3 prescribed fires	1 survey flight

When firefighting aircraft must be grounded, wildfires can grow in size, which greatly hampers firefighting efforts, threatens lives, homes, property and natural resources.



Safety

The BLM Fire program achieves the highest level of safety (the first priority in the Federal Wildland Fire Management Policy) through adherence to fire operations safety doctrine:

- The BLM Fire program achieves fire operations safety through risk management.
- The BLM Fire program’s safety philosophy acknowledges that although the ideal level of risk may be zero, absolute safety is not a reasonable or achievable goal in fire operations. However, through organized, comprehensive, and systematic risk management, we will determine the acceptable level of risk that allows us to provide for firefighter safety yet still achieve fire operation objectives.
- The BLM Fire program avoided fireline fatalities in 2021, although the national interagency wildland fire community experienced the tragic loss of 21 firefighters in 2021. These fatalities included 12 Local Government/Volunteer Fire Departments, 5 contractors, and 4 USFS employees.
- Within BLM Fire, as throughout the national fire community, safety is a vein that runs through every aspect of the program, from the most basic training to the most complex fireline operations. Firefighter and public safety is always the top priority.
- The BLM’s consistent safety focus also intertwines with all wildland fire partners. Every year, the BLM works to improve partner and cooperator capacity through the Rural Fire Assistance and Community Assistance programs.



Mental Health

- The BLM's top priority is the mental and physical health of our wildland fire personnel.
- Our goal is to provide mental health support and resources for all wildland fire personnel, both on and off the fireline.
- In 2019, the National Wildfire Coordinating Group (NWCG) sanctioned a Mental Health Subcommittee dedicated to providing support and resources for wildland fire personnel.
- While the mental health subcommittee remains focused on delivering relevant and effective resources to the fire community, they also revised a preparedness publication for firefighters and their families and added a firefighter stress management page to the Incident Response Pocket Guide.
- This preparedness publication is intended to support new and existing employees and their families as they navigate the firefighter profession. The publication and other resources can be found at: <https://www.nwcg.gov/committees/mental-health-subcommittee>.
- BLM Fire continues to facilitate pre-incident education for BLM Fire programs in each state. The training covers mental health wellness, overall wellbeing, suicide awareness, and prevention.
- BLM Fire has contracted a nationally certified counselor and licensed mental health professional to work with wildland fire personnel on the importance of mental health over the last few years. This pre-incident education effort has allowed BLM Fire programs in each state to cover mental wellness, suicide awareness and prevention.
- BLM Fire has also developed other mental health tools, such as talking points and other resources for supervisors to facilitate mental health discussions with wildland fire personnel. Safety specialists have also developed talking points to assist states who have not yet received the pre-incident training.
- The Bipartisan Infrastructure Law also provides funding and further focus on wildland fire personnel mental health.



Wildland firefighters walk the fireline on the Canal Fire in Utah. Photo by Lindsey Rush, BLM



Increasing Wildfire Activity

- In the last several decades, the number of wildfires, as well as the severity, and overall size of wildfires, has increased across much of the United States.
- Studies conducted by researchers and wildland fire management agencies has supported evidence that occurrence, size, and severity of wildfires has increased.
- Future projections, based on forecasted climate scenarios, indicate an increase in expected wildfire severity, and an expansion of wildfire activity over much of the western United States (Source: Liu and others, 2010; Liu and others 2012; USGS Wildfire, 2013).
- The following statistics indicate a similar trend in wildfire activity and behavior:
 - Since the 1980s, there were 1.7 times more fires of 1,000 acres or more, 2.6 times more fires of 10,000 acres or more, and 3.5 times more fires of 25,000 acres or more on DOI-managed land in the 12 western states. Using the same comparison, there were 2.5 times more fires of 1,000 acres or more, 3.5 times more fires of 10,000 acres or more, and 3.6 times more fires of 25,000 acres or more on USFS land in the 12 western states (Source: 2014 Quadrennial Fire Review, page 20).
 - On average, wildfires burn twice as many acres each year as compared to 40 years ago.
 - Between 1983-1992, wildfires burned an average of 2.7 million acres. Currently, the 10-year average number of acres burned is about 7 million acres per year and increasing.
 - In the last 10 years, more than 10 million acres have burned throughout the country three times: in 2020, 2017, and 2015. Between 1983-1992, wildfires burned an average of 2.7 million acres.
 - Since 1960, there have been two years during which total wildfire acres on all lands have burned more than 10 million acres. In 2015 – 10.1 million acres and 2017 – 10 million acres) and nine years during which total wildfire acres on all lands burned more than eight million acres. All of those have occurred since 2004 (2018 – 8.5 million acres; 2017 – more than 10 million acres; 2015 – 10.1 million acres; 2012 – 9.326 million acres; 2011 – 8.7 million acres; 2007 – 9.328 million acres; 2006 – 9.8 million acres; 2005 – 8.6 million acres; 2004 – 8 million acres (Source: National Interagency Fire Center http://www.nifc.gov/fireInfo/fireInfo_stats_totalFires.html).
 - Future projections, based on forecasted climate scenarios generated by global general circulation models and regional climate models, indicate both an increase in the expected severity of wildfires and an expansion of wildfire season over much of the northern hemisphere, particularly for western North America (Source: Liu and others, 2010; Liu and others 2012; USGS Wildfire, 2013).
 - More civilian lives are being lost in wildfire events. For instance, over 80 people perished in wildfires in 2019.
 - Wildfires have destroyed more homes and communities in recent years: from 2018 – 2021, 50,629 structures were lost in wildfires, of those, 31,788 were primary residences. A total of 5,987 structures were lost in 2021, primarily in California.
 - In 2021, fast-moving, large wildfire incidents affected thousands of private properties and displaced homeowners; approximately 3,577 residences were destroyed, most of which were in California totaling 2,031 and in Colorado on December 30 the Marshall fire destroyed -more than 1,000 homes in a single day.



- ▶ Currently, the 10-year average number of acres burned is about 6.8 million acres per year and increasing.
- ▶ Fire suppression costs are also increasing, for example, suppression costs stayed below \$1 billion before the year 2000. Since 2010, fire suppression costs have risen beyond the \$1 billion mark consistently every year, with a record of more than \$3 billion in costs set in 2018. While the number of wildfires and acres burned can vary, fire seasons are, on average, becoming longer, costlier, and more complicated.
- ▶ Across the West, the first wildfires of the year are starting earlier and the last wildfires of the year are starting later, making typical fire years 75 days longer now than they were 40 years ago.
- ▶ Fire personnel are required to work earlier in the spring and longer into the fall than in previous years, causing fatigue and burnout issues. The BLM is working to shift away from a seasonal firefighting workforce because fire personnel are in demand throughout most of the year.
- Along with the USFS and other agencies, the BLM is using the term “fire year” instead of “fire season,” because fire activity is, on average, occurring year-round. Though several regions still experience their own typical fire seasons, particularly the western half of the country, overall, nationally, fire activity is occurring throughout the year.
- Over the last few decades, the period of fire activity has become at least two-and-a-half months longer, and the frequency, size, and severity of wildfires is increasing. Primary drivers include drought, climate change, wildland fuel buildups, and increasing development in the wildland urban interface (WUI).





Prevention, Mitigation and Education

- The public plays a valuable role in preventing wildfires. The national average of human-caused wildfires comprises 87% of all wildfire occurrences every year. Most of these fires can be prevented.
- Preventable wildfires threaten lives, property, and precious resources every year. During the COVID-19 pandemic, firefighters are needed more than ever to keep Americans safe, so please, do your part to prevent human-caused wildfires.
- Be aware of local public safety area closures. Take extra precaution before venturing out and be careful with anything that could start a fire.
- Stay informed of current and predicted environmental conditions such as weather and drying vegetation. The National Significant Wildland Fire Potential Outlook can be found on the National Interagency Coordination Center website at predictiveservices.nifc.gov/outlooks/.
- Running out of home improvement projects? Consider making your property more resistant to wildfire. Take individual responsibility to reduce flammable material around homes and communities before a fire occurs to keep your property and firefighters safe. Learn more at www.firewise.org.
- Adhere to your state's outdoor burning guidance. Prior to burning, contact your local fire agency as smoke from open burning can cause unnecessary public health and safety concerns.
- Get involved with fire prevention; learn how to protect your community and keep your family safe from wildfire. There are many online resources, but you can start at BLM.gov: [programs/public-safety-and-fire/fire-and-aviation/get-involved/fire-prevention](https://www.blm.gov/programs/public-safety-and-fire/fire-and-aviation/get-involved/fire-prevention)
- The BLM is dedicated to actively investigating all human-caused fires. By learning about fire causes, we can work together to mitigate and prevent future ignitions.
 - [Wildland Fire Investigation and Fire Origin Protection](#) (NWCG YouTube)
- The pandemic increased public lands visitation over the last two years, which resulted in record numbers of human-caused fires in some states. The leading human fire causes across the BLM continue to be from equipment, vehicles, shooting (including exploding targets), and open burning.
- Most BLM state offices issue prevention orders during the summer months, which restrict the use of tracer ammo, exploding targets, firecrackers, and other items that may spark a human-caused fire. It is important to check your local BLM office for specific order to see the timeframes and restrictions that may be present in your area.



A BLM employee demonstrates campfire safety for the public in 2020.
Photo by Alex Konz, BLM



Human Caused Fires on BLM-managed Public Land

- In the United States, human-caused fires compose around 87% of all fire occurrences. On BLM-managed public lands, natural ignitions (lightning) compose over half of all wildfires. Human-caused fires are most prevalent in the southeast and east, while natural ignitions are comparatively more prevalent in the west.
- Over the last 10 years, nearly 90% of all burned BLM acres started by natural ignitions, though human-caused fires are a significant concern, since they often occur in urban areas and threaten human lives and property. Natural ignitions result in more acres as weather systems produce multiple starts, often in remote areas with longer response times, and wildfires grow larger before initial attack resources arrive.
- Research shows the top three human-caused wildfire ignitions on BLM managed lands include those started by vehicles and roadside starts, equipment use and outdoor burning. There is also a growing trend of fires started by fireworks and exploding targets and other shooting related fires.
 - › Vehicles - roadside starts, off-highway use on dry grass, trailer malfunctions,
 - › Equipment - heavy machinery, power/cutting tools, farm equipment, etc.
 - › Outdoor Burning - piles, debris, agriculture burning to remove crop residue, fence lines, burn barrels, etc.
 - › Community Assistance
- In 2021, the BLM provided more than \$5.3 million to communities at risk near BLM lands for wildfire risk reduction activities.
- The BLM assisted 759 communities and funded the treatment of 17,297 acres adjacent to BLM land which reduced wildfire risk to 10,964 homes.
- The BLM also completed and/or updated 74 community wildfire protection plans and sponsored 845 education events.

Rural Fire Readiness Program

- The Rural Fire Readiness (RFR) program enhances firefighting capabilities and serves as a mechanism to transfer BLM Firefighting equipment and provide funding to partners to increase safety and reduce response time to wildland fires.
- The RFR program provides a process for the BLM to transfer no longer needed firefighting equipment to local cooperators. Partners are selected based on their location to strategic areas that benefit BLM's wildland fire mission, as well as other criteria.
- Under the program, local wildland firefighting partners that meet certain requirements may receive training, wildland fire engines, water tenders, radios, pumps, hose, chainsaws, hand tools, personal protective equipment, fire shelters, and other items the BLM no longer needs.
- Through the program, the BLM also provides funding to BLM states and local units to conduct wildland fire training, establish cooperative fire response agreements, and build relationships through the Local Cooperator Assistance Program (LCAP).
- The program also allows the BLM to develop and maintain partnerships with Rural Fire Protection Associations (RFPA), which are crucial to success in responding to remote wildfires on private, state and federal lands affecting grazing, recreational opportunities, wildlife, and other values important to local rural economies.



- RFPAs, composed largely of ranchers, have proven to be a valuable partner for BLM. Akin to local, volunteer, and rural fire departments, RFPAs typically operate in remote areas and often provide initial attack response to remote wildfires before BLM ground crews can arrive, often keeping wildfires small before they become large, problematic incidents.
- In fiscal year 2021, BLM Fire provided approximately \$1 million for BLM units to provide wildland fire training, establish and maintain agreements, and build relationships with local cooperators.
- Annually, approximately \$1 million in funding for the BLM RFR program is provided to the states to conduct LCAP activities, and an additional \$600,000 is utilized by BLM Fire Operations to conduct end of life cycle engine buyouts to transfer engines to local cooperators.
- BLM Fire annually pays the salvage value for end-of-life cycle engines and other rolling stock equipment so states can transfer them to qualified local cooperators.
- In fiscal year 2021, BLM Fire conducted 338 training sessions and meetings with Rural Fire Department (RFD) members, plus 21 training sessions and meetings with RFPAs under LCAP. These BLM administered courses trained a total of 5,999 RFD firefighters and 722 RFA members. Another 207 firefighters received training through a BLM funded academy.
- In 2021, the BLM also completed 31 wildland fire engine transfers with nearly \$3,000 in equipment on board to local cooperators. Radios continue to be a significant equipment transfer item often sought by local cooperators.



A BLM engine was transferred to a rural fire department in Utah. Photo by BLM

Veterans

- In an unprecedented step among federal fire management agencies, BLM Fire created a veterans program designed to train and hire individuals with previous military experience. This move was the result of the close match between veteran skills and the skills needed in the fire community.
- BLM Fire is committed to serving veterans and continues to explore new opportunities for veteran recruitment, training, and development.
- BLM is the only agency to have eight veteran wildland fire crews, two of which are Type 1 hotshot crews.
- Currently, BLM veteran wildland fire crews operate out of stations in Arizona, Oregon, Nevada, California, Montana, South Dakota, Wyoming and Washington.
- These crews have received positive reviews for their dedication and abilities as first-rate firefighters who have transferred their love of public service to protecting America's public lands.
- BLM Fire continues to work with various veteran organizations and military transition assistance programs to find and connect veterans with BLM Fire career opportunities.



Equity, Diversity and Inclusion

- The BLM is committed to a culture where harassment, sexual harassment, and bullying are not tolerated, thus strengthening employee trust and enhancing our work as stewards of public lands.
- The BLM values a wide range of experiences and backgrounds from all its employees and therefore, we continue to focus on innovative solutions to improve our organization's workplace culture.
- To further this important goal, the BLM has developed an action plan to foster cultural change to provide a productive work environment free of harassment and bullying where all BLM employees and volunteers can excel.
- BLM Fire has been working on a program specific BLM Fire Equity, Diversity and Inclusion Plan for several years. The plan, first created by a diverse group of BLM Fire employees, continues to evolve with renewed employee participation.
- Plan development and associated equity, diversity and inclusion work is coordinated with EEO, HR and BLM Fire practitioners who are responsible for both policy and for recruiting and hiring fire personnel.
- BLM Fire continues to work towards improved workforce data processes; we are working to understand more about applicant data and retention rates so we can better target recruitment and hiring processes.
- Ultimately, equity, diversity and inclusion are more than just words for us: we are committed to creating a workplace culture that drives us forward every day. We are not focusing on diversity for diversity's sake: diversity drives innovation, it's the right thing to do, and it's in the bureau's best interest to create a BLM Fire workforce that represents the public we serve.



Kasha-Katuwe Tent Rocks National Monument. Photo by Bob Wick, BLM



Frequently Asked Questions

How do BLM wildland fire suppression tactics differ from other federal wildland fire management agencies?

Because a large portion of BLM-managed public lands are experiencing too much fire, the BLM's overall wildfire suppression mission differs than other agencies, such as the USFS. In some areas, the USFS can allow wildfire to take its natural course because the absence of fire in many forested ecosystems has created an unnatural buildup of fuels. In most areas, the BLM must implement full suppression tactics because of invasive weeds issues.

Why doesn't the BLM conduct more prescribed burning?

While prescribed fire is a cost effective, natural fuels reduction tool, not all lands need to see the equivalent increase in prescribed fire use. Some specific vegetation types, historical land uses, and current drought conditions dictate the amount and frequency of prescribed fire that can be, or should be, used to manage these lands. Under natural fire cycles, or with Native American uses of fire, large areas formerly burned lightly every few years, while others burned every 200 years or less often. These areas should therefore not be burned with prescribed fire uniformly, to the same extent and at the same frequency. In many of these areas, mechanical treatments must first be completed before prescribed fire can be implemented.

Additionally, some landscapes have invasive plant species that cannot be burned without greatly increasing the spatial coverage of those invasive species. These species include cheatgrass (*Bromus tectorum*) that occupies an increasing extent of our Great Basin sagebrush steppe ecosystem. The use of prescribed fire on some lands may not be compatible with some land use designations or may result in risks to resource values. Because of invasive weeds, fire frequency has increased and many ecosystems are experiencing too much wildfire, which is not allowing native vegetation to recover. Limitations may also exist in some WUI areas during drought, adverse weather, or other situations in sensitive areas.

Can the BLM "let fires burn" naturally?

Wildfire is a natural element of most western ecosystems, though the historical removal of fire from the landscape has resulted in a buildup of fuels, particularly in forested areas. This fuel accumulation often results in extreme fire behavior, particularly in areas where full fire suppression is required because of nearby homes, private property, infrastructure, and other resources.

The BLM Fire program uses wildfire to accomplish resource objectives. In some areas, land use plans and fire management plans allow naturally caused wildfires to be managed for resource benefits.

Federal agencies can use wildfire for resource benefits in situations where homes and other resources are not threatened in order to accomplish specific pre-stated resource management objectives in predefined geographic areas. Agencies manage wildfires according to the National Cohesive Wildland Fire Management Strategy. The strategy's vision is "To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire."



Per BLM policy, wildland fire will be used to protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Using Wildfire to Accomplish Resource Objectives will be based on approved Fire Management Plans (FMP) and will follow specific prescriptions contained in operational plans. The full range of fire management activities will be used to help achieve ecosystem sustainability, including interrelated ecological, economic, and social components.

The BLM Fire program is able to use fire for resource benefit when FMPs allow, though in ecosystems such as the Great Basin, the BLM's goal is to decrease wildfire on the landscape because of the invasive weeds-wildfire cycle. However, due to the invasion of non-native flammable grasses, the Great Basin is experiencing fire activity much more frequently; in some areas, fire return intervals are as short as five to 10 years; fires are becoming much larger than what occurred historically. For these reasons, fire managers are not working to increase wildland fire in most areas of the Great Basin.

Why doesn't the BLM fly SEATs, helicopters and other aircraft at night?

- The main reason is safety – flying at night creates serious safety issues for all aircraft. These types of operations need both specialized training and equipment, such as night vision goggles.
- Visibility is another primary factor for not flying at night. Fixed-wing and rotator-wing aircraft need to have a clear line of sight to see what is happening both on the ground and the air around them.
- Most large airtankers cannot be used after sunset. This is for safety reasons and is non-negotiable: pilots must be able to clearly see the ground, fire personnel, and other aircraft to safely conduct airtanker operations and retardant drops.
- If pilots cannot see the ground, they cannot effectively drop retardant in the right locations to reduce fire activity for ground crews to conduct fire suppression operations.
- Also, it's important to note that aircraft alone don't put out wildfires; they are most effective when working in concert with firefighters on the ground. Airtankers are used to drop fire retardant, which reduces wildfire spread and intensity, and helicopters are used to drop water on hot spots and flames. This allows firefighters on the ground to safely construct containment lines, which is the basis of wildfire suppression.

Is the BLM experiencing a wildland firefighter shortage?

- Wildland firefighters are our most important asset – without them, we cannot protect lives, communities, infrastructure and precious natural resources from unwanted wildfires.
- The BLM has about the same number of wildland firefighters this year compared to last year, however, we are experiencing some hiring, recruitment and retention challenges in states where state fire wages are outcompeting federal fire wages and private employers like utility companies are offering higher pay.
- BLM wildland fire crews will operate within staffing standards again this year.
- The BLM Fire program will respond to all wildland fire incidents aggressively, with the goal of preventing large, catastrophic wildfires. The bureau will also continue to work closely with its federal, state and local partners to rapidly move, or preposition, wildland fire resources around the country to locations where fire activity is predicted and expected.



- Wildland firefighting in today's environment demands increasingly sophisticated skill sets. The BLM is committed to major investments in the wildland fire management program workforce.
- BLM stresses that we will respond to wildland fire incidents. Given current budget and staffing scenarios, however, many programs are staffed to meet minimum standards. With fewer staff overall, flexibility is reduced for things like extended staffing opportunities, and work-life balance for fire employees is diminished.

Where is the new wildland firefighter job series?

- A specific wildland firefighter job series will also allow the BLM and its partner agencies to further support the wildland fire management workforce.
- The Bipartisan Infrastructure Law established DOI/USDA/OPM workgroups to develop classification standards for a new wildland fire occupational series. This process is currently ongoing, and the BLM Fire program is participating in these workgroups with the goal of developing a professional, specialized wildland firefighter job series that better represents the highly skilled, dedicated and hard-working wildland fire community.

Is the BLM going to experience Jet A fuel shortages again this year?

- A reliable supply of jet fuel is critical to ensuring uninterrupted aerial wildland firefighting operations.
- "Jet A" fuel, which is experiencing supply and delivery issues, is used to power turbine (jet and prop) aircraft used in wildland firefighting aviation operations.
- Last year, impacts due to the availability of jet fuel increased at many airports in the West that support wildland fire aviation operations.
- The agencies that manage airtanker bases in the West actively worked to mitigate the impacts from the situation that were within their control.
- During the 2022 fire year, wildland fire managers will proactively identify alternate airports with adequate fuel supply and incorporate them into operational plans should fuel supplies become low or run out at primary locations.
- However, use of alternate airports for refueling can add as much as 30-60 minutes flight time each way, increasing wildland fire response and turnaround times.
- Wildland fire agencies will closely monitor the situation and consult with aviation partners and industry representatives regarding the factors that have led to the situation.
- Jet fuel availability at airtanker bases in the West is inherently complex and challenging due to the rural locations and the relatively short notice for large fuel orders, which are dependent on fire activity.
- There are 44 large airtanker bases - 8 of which are BLM-managed bases, 36 are USFS-managed bases.
- There are 28 federal SEAT bases which are a combination of BIA, BLM and USFS bases.
- The BLM Fire program will work with its federal, state and local partners, along with contractors, so plan for possible Jet A fuel shortages this fire year.



Is the BLM anticipating any wildland fire management supply issues this year?

- Federal wildland fire management supplies are provided through the federal government and contractors.
- At this time, the BLM is not aware of any potentially widespread wildland fire management supply issues, though we will continue to plan accordingly and monitor all supply situations throughout the fire year.
- The BLM Fire program also works closely with contractors and will continue communicating with them throughout the fire year to anticipate any potential supply issues.



Infographics [All infographics are available on the BLM Fire SharePoint site.](#)

Fuels Management

The BLM Fuels Management program is focused on active management to reduce wildfire risk, improve wildfire resiliency, and promote fire-adapted communities. This effort is critical considering the vast spread of wildfire risk throughout the West, as the BLM works to address more than 70% of DOI's wildfire risk. To address these fire-invasives challenges, the BLM conducts a wide variety of fuels treatment projects, including mechanical treatments, chemical and biological treatments, and prescribed fire. Fuels treatment options are limited in areas where invasive weeds are present; many of these areas are experiencing too much wildfire. Prescribed burning is not an effective tool in areas impacted by invasives, which is why only 25% of all BLM fuels treatments consist of prescribed burning.

The BLM has outlined a plan to achieve at least 1 million acres of fuels treatments annually on

BLM-managed public lands, and to sustain that level of treatment for the next five years with expected funding increases. BLM has developed a national five-year wildfire risk assessment and will focus treatments in priority areas to protect and restore landscapes and to reduce wildfire risk near communities. In fiscal year 2022, BLM is planning to treat approximately 898,000 acres and working to increase capacity to meet the 1 million acre goal. By increasing fuels accomplishments, the BLM will improve firefighter and public safety; reduce wildfire impacts and costs; maintain and restore fire-resilient landscapes; and create long-term natural resource benefits. This plan will also involve adding contracting, grants and agreements capacity, as increasing fuels projects cannot be achieved without investing in these capabilities.

50% of DOI total

The BLM accomplishes more than 50% of the DOI's fuel treatments.



25%
of acres
accomplished



Chemical and Biological Treatments

25%
of acres
accomplished



Prescribed Fire / Fire Use Treatments

50%
of acres
accomplished



Mechanical Treatments

870,226 acres

In 2021, the BLM treated 870,226 acres of its planned 772,896 active management acres, which equates to 113% of the planned target acre total.



Fuel Breaks

Large swaths of grasses, brush, or other vegetation provide continuous fuels that can lead to catastrophic wildfires.



Fuel breaks thin out or break up the vegetation, which slows the progress and reduces the intensity of the wildfire, making it safer and easier for firefighters to control.



BLM Fire uses multiple fuels treatment methods. Fuel breaks reduce hazardous fuels and provide wildland firefighters a safe barrier to conduct fire suppression tactics.

The BLM also reduces hazardous fuels through fire use by allowing some wildfires to take their natural course when they can be safely and effectively managed to produce desired results.



45,959 acres

of resource benefit were achieved in wildfires, inching the BLM closer to the one million acre target.





BLM Fire Fiscal Year 2022 Budget



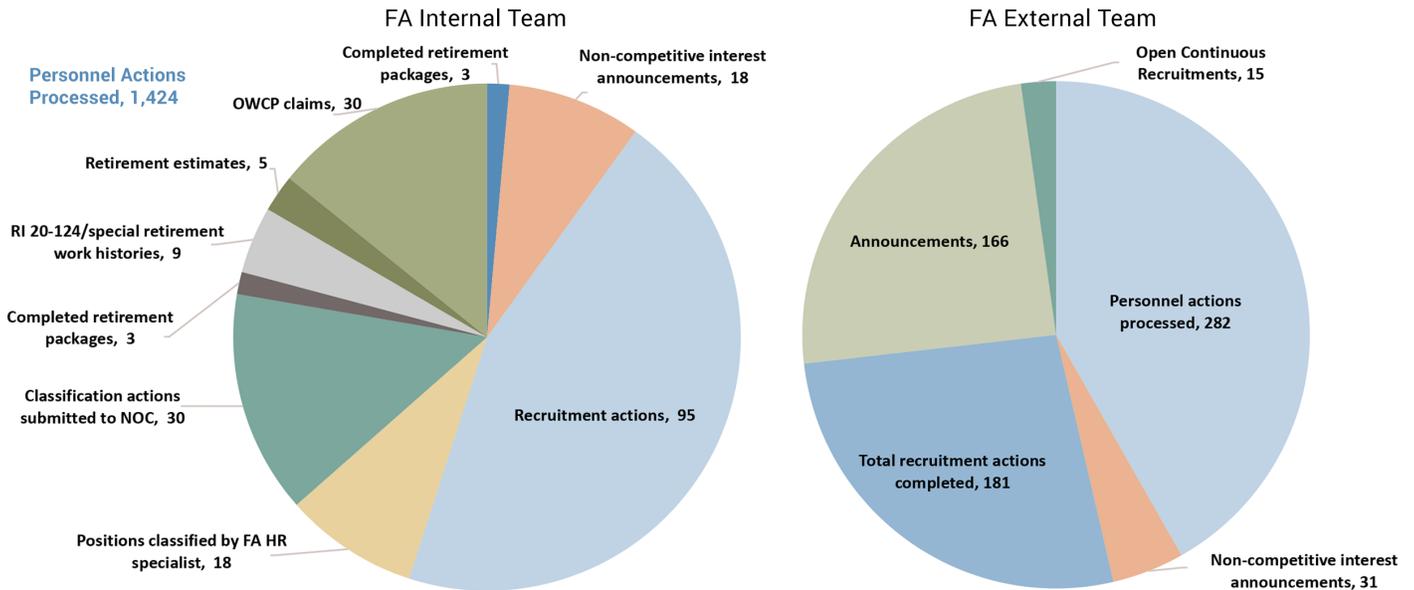


FA-200 2021 Year-in-Review

Safety and Critical Incident Stress Management (CISM)

Completed 30 facility safety inspections, over 150 hazards identified and corrected.	The BLM Critical Incident Stress Management (CISM) program provided 17 national interagency responses in 2021.	NWCG Safetygram – 10 wildland fire fatalities to date. (2-aviation, 2 vehicle accidents, 2 medicals, 1 UTV, 1 SMKJ hard landing, 1 homicide, 1 other).	Safenets – 18 Safenets either reported by BLM or on BLM land. (13- communications, 3- equipment, 2- Human Factors/Leadership).
Hired National Medical Director for Operational Medical Support Program.	OMSC Pilot program will begin in Fire Year 2022 with 100 Emergency Medical Technicians (EMTs).	Completed the Devils Creek Serious Accident Investigation (SAI) with a U.S. Forest Service joint delegation of authority using the BLM rostered SAI Team.	BLM Covid Tracker – To date in 2021, BLM fire has 135 positive cases reported out of 489 total for BLM. Vast majority of the cases came in August and September.

Human Resources



DOI FIRES

Total Announcements: 103	
BLM: 69	NPS: 24
	FSW: 10
Total Certificates Issued: 1,058	
BLM: 711	NPS: 187
	FSW: 160
Applications Reviewed: 17,002	

Great Basin Cache

Issued 17,433 line items, total value	\$54,710,427
Returned 29,456 line items, total value	\$53,882,268
issued 108,330 PMS items totaled	\$665,731



124 Radio Starter Systems issued

613 VHF Command Repeater/Link Kit

PMS Top Sellers

IRPG 44,177 sold	Red Book 5,297 sold	National Mob Guide Online Only	626 Government Bill of Ladings issued
			559 commercial air 67 ground transportation At a cost of \$1,052,213



FA-200 2021 Year-in-Review

Business Practices

- Completed 451 contracting actions totaling \$42,920,653
- Completed 47 interagency agreements totaling \$2,781,957
- Purchased over \$17.1M in seed for land rehab efforts
- Performed annual inventory and control of 6,994 assets
- Performed annual inventory and control of 1,868 BLM firearms
- Donated \$246,519.71 worth of computers to schools
- Managed the inventory control of 4,769 radios

Facilities Operations and Maintenance

Managed over **428** locally submitted Work Order requests



☑ Managed \$3.8M of construction and service purchase requests.



Fire and Aviation Information Technology (FAIT)



More than 2000 help desk tickets closed in FY21



Both UnitID and Weather have been stabilized in the APEX low code environment and are ready for production in December 2021



FIRENET web site was developed in Drupal



IT Services contracts awarded for new development of NAMS/IQCS and other IT Applications

Security



4,707 visitor checks a year



Conducted **584** PIV activations



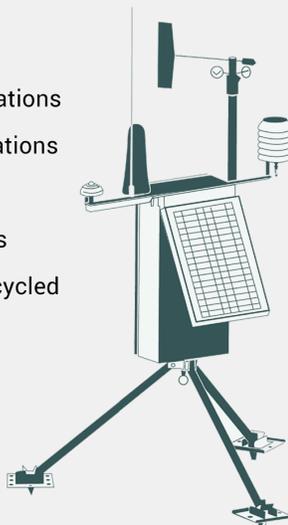
Responded to **163** reported incidents

*Includes alarm response, unsecured buildings, accidents, and 911 calls.

RAWS

Field

- 180,942** vehicle miles driven to support RAWS operations
- 9,258** ATV/UTV miles driven to support RAWS operations
- 341** RAWS annual maintenance completed
- 119** IRAWS deployed in support of wildland fire IMTs
- 4,219** pounds of obsolete electronics equipment recycled
- 257** RAWS inventory and control managed
- 63** wildland fires incidents supported
- 341** stations added on contract
- 34** RAWS repaired



Depot

- 5,857** sensors calibrated
- 2,093** orders with 5,828 sensors shipped to customers
- 1,859** interagency portable and permanent RAWS maintained
- 125** IRAWS kits calibrated and prepared



BLM Fire 2021 Top 10 Accomplishments

Bureau of Land Management
Department of the Interior

2021 BLM Fire Top 10 Accomplishments

<h3>WORKFORCE TRANSFORMATION</h3> <p>Added 75 new firefighters and support personnel.</p> <p>Converted 425 existing seasonal positions to permanent and/or year-round.</p> <p>\$13 million</p>	<h3>UNMANNED AIRCRAFT SYSTEMS</h3> <p>31 BLM UAS operators conducted 1,700 flights, totaling 386 flight hours in 18 states for wildland fire support and emergency hazardous fuels reduction.</p>
<h3>ROLLOVER PROTECTION</h3> <p>National Fire Equipment program retrofitted 14 heavy engines with rollover protection systems.</p>	<h3>PREPAREDNESS</h3> <p>BLM Fire includes about 2,925 preparedness personnel.</p> <p>BLM Fire responded and/or supported 5,354 fires for 1.89M hours of time.</p>
<h3>MENTAL HEALTH</h3> <p>Contracted a nationally certified counselor and licensed mental health professional to work with wildland fire personnel on the importance of mental health.</p>	<h3>RURAL FIRE READINESS</h3> <p>25 engines and 1 water tender to local cooperators in 10 states</p> <p>338 training sessions with rural fire department members.</p> <p>21 training sessions with Rangeland Fire Protection Associations.</p> <p>Trained 5,999 RFD firefighters and 722 RFPA members.</p> <p>Trained additional 207 firefighters through a BLM funded academy.</p>
<h3>COVID</h3> <p>Curbed widespread cases with guidance and strategies.</p>	<h3>FIRE FACILITIES</h3> <p>Implemented \$31 million in Fire Facilities funding.</p> <p>Closed out \$14.8 million in project funding to include completion of 16 projects.</p>
<h3>FUELS MANAGEMENT</h3> <p>Treated 870,226 acres of the planned 772,896 active management acres = 113% of the planned target total.</p> <p>Additionally, 45,959 of resource benefit acres were achieved in wildfires.</p>	<h3>LOCATION BASED SERVICES</h3> <p>Implemented program-wide.</p> <p>Used successfully by wildland fire managers and dispatchers to view nearly real time firefighting vehicle locations.</p> <p>Installations now operational on more than 700 wildland fire engines, crew transports, and support vehicles.</p>