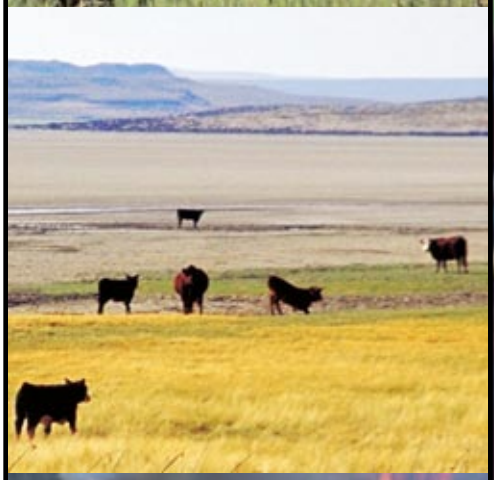

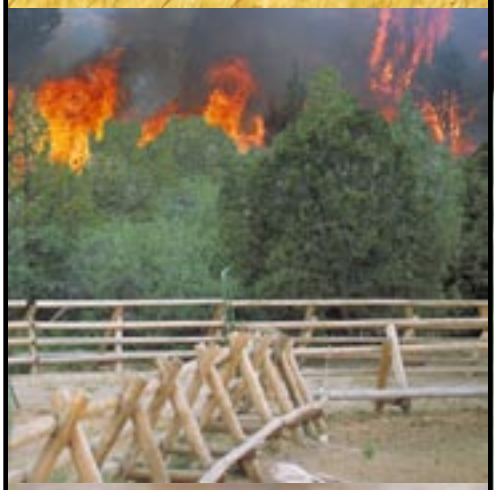

Earning Bridges

Strategies for Effective Community Relations Before, During and After the Fire

BLM

Prepared by the BLM Office of Fire and Aviation
National Interagency Fire Center

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Introduction

This notebook is a toolbox designed to provide managers with an array of ideas, resources and proven techniques—all focused on the task of preventing problems that can occur when a wildfire is threatening your partners and your local special publics.

Each fire season, situations arise wherein a partner -- for example, a rancher whose lands abut the Bureau of Land Management (BLM) or has an allotment on public land -- feels alienated by the BLM in dealing with the fire and its threats. Sometimes people feel pushed to the side by the decisions and actions of an incident management team. In other instances, people disagree with post-fire actions, like closures, changes to allotments, or decisions about salvaging burned timber. When people are angry or misinformed about BLM fire strategies and tactics, they may take actions on their own that cost us dearly in energy, time and funds.

This booklet is meant to help prevent those situations. We've included real-life examples and suggestions from BLM units that have scored significant successes. We've addressed things you can do before, during, and after a fire event. This toolbox also contains handouts and presentation materials for use in community meetings. It has templates for resources that you can give to your partners and neighbors to help them better understand the fire program perspectives.

Most of all, this has been designed and compiled with your needs in mind. You can and should adapt the materials for your local situation and culture. You can work with your public affairs staff and use this toolbox to help lay out a community relations plan. **Above all, this notebook is about building and maintaining relationships.** Good managers earn trust and build bridges; they don't burn bridges. When your partners know you, trust you, and feel they can approach you and be heard, many problems and issues get better or dissipate.

Why is the Office of Fire and Aviation providing this toolbox? There are pockets of the West where BLM fire programs have developed and maintain positive, productive relationships with special publics, particularly the ranching community. These relationships have multiple benefits that lead to cooperation and a safer environment when fires occur. Where these relationships do not exist, a lack of understanding, communication, and coordination results in unnecessary obstacles and challenges, and safety issues that threaten both firefighters and the public. This booklet seeks to provide the tools and guidance to establish successful relationships across the BLM.

Good luck, and please contact the Fire and Aviation Directorate if we can offer you additional help.

- Jim Douglas, Assistant Director – Fire and Aviation Directorate

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Best Practices Principles, Techniques and Methods Checklist

The following principles, techniques and methods are gleaned and compiled from the best practices gathered from districts and field offices where successful community and constituent relationships have been established, proven, and are being maintained. The items here also include input from members of the ranching community and are offered here as guidelines for use in your area.

Remember, the goal is to create relationships where safety, cooperation and coordination are the norm. This requires regular communication and understanding on the part of both the BLM fire program and special publics. Not every item on this checklist of ideas and guidance for achieving positive working relationships will apply in every area. They do, however, provide a framework for moving forward and can be adapted to local publics, cultures, and needs.

- ❑ Communication with special publics is critical, and it should occur early and be ongoing. This includes asking for and listening to constituents' concerns and input as well as explaining firefighting processes. Greater understanding and a positive relationship early on will lessen the impact of any emerging issues during or after a fire.

- ❑ Communicate in simple language. Avoid using technical jargon and acronyms.

- ❑ Listen to partners and key publics to achieve a greater understanding of their concerns and issues, and potential hot spots.

- ❑ Recognize that special publics, particularly ranchers and permittees, have economic and cultural ties to the land. Their livelihood depends on the land and this interest can be an asset to the fire program.

- ❑ Communicate strategically. This means address issues early on, and don't wait until a crisis is unfolding before trying to communicate and build relationships.

- ❑ Be inclusive with communication. Err on the side of providing information to someone who may not be integrally involved or care, rather than excluding or failing to inform someone who wants or needs to know.

- ❑ Strive to achieve the goals of understanding and coordination. If special publics understand what and why the BLM is taking a particular action on a fire, they are less likely to oppose it, even though they may disagree with it. They also will be more likely to coordinate their actions with the BLM.

- ❑ Communication leads to better working relationships. Better relationships lead to closer cooperation and coordination. And cooperation and coordination lead to safer conditions at the fire scene and afterward, for both firefighters and the public.

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- ❑ Plan ahead. Utilize off-season time to assess prior year's successes, failures, and lessons learned. Plan communication activities well ahead of spring and summer when fire activity may be occurring.

- ❑ Meet with individuals or small groups within special publics. Make these meetings informal and relaxed. Whenever possible, it's best to meet on your constituents' "turf" – a coffee shop or café where they regularly meet. Listen to their input and concerns.

- ❑ When members of a special public, such as permittees, are so numerous as to preclude individual or small group meetings, host a group meeting in a location convenient to them. Such a meeting can be an open-house forum at the beginning for casual conversation, but listen to their input. The latter part of the meeting can be a presentation format to discuss the fire program, tactics, work-rest guidelines, communication, and safety. (*A PowerPoint format is included in this package and can be adapted to your local area, culture, needs, etc.)*

- ❑ If hosting your own meeting is not practical, get on the agenda and attend association meetings or other gatherings where special publics will be present.

- ❑ Recognize that special publics, in this case ranchers, can be a tremendous asset in terms of knowing the lay of the land, access roads and road conditions, water points, fences, livestock locations, and more.

- ❑ Use the expertise these special publics can provide. They spend every day on land that fire crews may only see once in a summer. In most cases, ranchers only want to be involved in the fire response and they can be more useful and productive by providing information.

- ❑ Build into your communications with them a recognition and understanding of their unique and close economic and cultural reliance on the land.

- ❑ Also include phone numbers for the dispatch office, resource advisors, and duty officers in communication products and presentations designed for special publics.

- ❑ Every group, large or small, formal or informal, has "opinion leaders," or individuals who emerge as de facto leaders due to their expertise, knowledge, history or other intangible quality. Make a particular effort to communicate and share ideas with this individual in your local area, especially in those areas where the numbers of publics are so large as to make individual relationships impractical. These opinion leaders can and do educate their counterparts and influence relationships.

- ❑ Utilize opinion leaders as focal points for communication to the broader group. Work with that individual to establish a "phone tree" to get word out to others. When fire occurs, contact this individual and share information about the fire's location, who and what equipment is responding, etc. Keep these publics in the information loop.

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- ❑ Formalize the use of rancher and permittee equipment by offering to inspect their water trucks, tractor and disks, dozers or other equipment and enlist them as contractors. This provides a mechanism for them to participate, while maintaining some oversight by the fire program, and providing compensation for equipment.

- ❑ Design your own or utilize existing abbreviated fire training courses to educate special publics about the fire program, preparedness, response, and post-fire actions. These may or may not be designed to qualify public individuals as firefighters. It's more important as an education tool and to provide information that will provide greater understanding and facilitate more positive relationships.

- ❑ Work with your public affairs staff to design flyers, brochures, press releases and other communication outreach products and presentations. Plan distribution of these around a schedule that extends through most if not all of the year. For example:

  - Spring: Preseason meetings, presentations, prevention messages, other outreach, and equipment inspections
  - Summer: Ongoing prevention messages, fire information, weather topics, fire behavior
  - Fall: Post-fire activities, rehabilitation projects, assessments and lessons learned
  - Winter: Special public group meetings, operational improvements planned.

- ❑ Expand your contact and communication circle beyond particular special publics. Other groups may include local and county elected officials, public service organizations, Chambers of Commerce, local media, and others. The larger the circle of local citizens and entities who understand the fire program, the reasons for some tactics and operations, and post-fire activities, the smoother events will flow when wildfire occurs. Positive relationships with the larger community also influence and facilitate cooperation and coordination with special publics.

- ❑ Utilize safety messages throughout your communications. Stress that the safety of the public and special publics is as critical to overall fire operations as the safety of firefighters.

- ❑ While federal firefighters and fire managers have no say or control over what actions members of a special public may take on private land, those actions can and do affect the safety of firefighters working on nearby public lands. For this reason, positive understanding, communication, cooperation and coordination of efforts is imperative for the safety of all.

- ❑ Local ranchers or other publics may initially respond to a fire, but if a positive relationship is in place, they can be influenced to stop working, coordinate their efforts, or provide assistance through sharing their expertise with the resource advisor or firefighters.

- ❑ Although their mission is fire suppression, firefighters and fire managers also are public servants and it is incumbent upon them to be available to, listen to, and work with members of the public and special publics.

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Before Fires Strike…

Suggestions for Fire Managers and Staff

1. Review the *Best Practices Guide* in this notebook for tips, ideas and insights in community relations.

The "best practices" contained in this notebook are methods and principles distilled from reviewing highly successful community relations and media relations programs in the BLM, and by speaking with ranchers and permittees to determine what works for them.

2. Plan and conduct pre-season meetings with ranchers.

Things to discuss…

- Who to call if there is a fire on or near a grazing allotment.
- How BLM firefighters are organized, the incident command system, basic tactics, work-rest rules, etc.
- How ranchers can get their equipment inspected and signed up to work on fires.
- Outlook for the upcoming fire season.
- How ranchers can help and hinder firefighting efforts.
- Road and gate access to allotments, roads, water sources, etc.
- Any other questions and topics that may need to be discussed.

The value of pre-season meetings is three-fold: a) they help build relationships and mutual trust; and b) they provide information and answer questions ahead of time; and c) it engages ranchers in the process and provides them a role.

3. Initiate informal pre-fire season meetings with local, state and national elected officials relevant to your management area.

Things to discuss…

- How the BLM is organized to respond, basic tactics, the IC systems, etc.
- The outlook for the upcoming fire season.
- Expectations of elected officials for fire suppression.
- How the BLM is addressing cost-containment issues.
- What are important local issues related to fire management?

Land managers and their public affairs specialists should make a point to meet with elected officials that are closely aligned with ranchers.

4. Review agreements in place that help the BLM when fires strike.

- Emergency Equipment Rental Agreements
- Land use agreements
- Cooperation or mutual aid agreements

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During Fires

Suggestions for Fire Managers and Staff

- Often, ranchers will be the first to spot a fire. With a good relationship established earlier, they will notify the dispatch office of the location and where they will be working if they respond. If the report comes from another source, notify the ranchers in the area about the fire and what resources are responding.

  (In some locations, a phone tree has been established so that dispatch can call one rancher and he or she notifies others.)

- When crews arrive, ranchers should stop working on the fireline. Fireline managers can facilitate this by engaging them in a different task – that of working with the resource advisor or fire managers to provide information about water sources, access roads and conditions, fences, locations of livestock, natural barriers, etc. This coordination builds on relationships, engages the ranchers in the overall effort, and provides fire crews valuable information.

- Utilize Resource Advisors. These range staff likely already have a working relationship with the ranching community, and they can serve as a liaison to the ranchers while the IC focuses on fire operations.

- Work with and through fire management officer (FMO) and Range staff to monitor how fires are affecting ranchers and range permittees.

- When opportunities arise, publicly give ranchers credit for their cooperation and assistance. Mention them in sound-bites, interviews, and other forums.

- Regularly touch bases with people who serve as "listening posts" in the ranching community, especially when fires are threatening or impacting them. Find out from these allies if issues are simmering with regard to how the BLM is handling a particular fire, or the fire season overall.

- Have your unit public affairs officer (PAO) provide an in-briefing for Incident Management Team (IMT) information officers each time a team works a fire on or near your unit. The in-brief should address local political, cultural and other issues unique to your area and existing relationships with special publics. This will help avoid or alleviate issues that may arise from an unfamiliar team working with your local constituents.

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During Fires

Suggestions for Fire Managers and Staff (continued)

- Have your unit PAO provide a debriefing as teams leave the area to learn of and address any lingering unresolved issues (rumors, complaints, political issues, etc.) whether related to the fire operations or other resource management concerns.

- Have your unit PAO regularly monitor media coverage of fires and fire issues, with a view to keeping tabs on emerging issues related to fire.

- Move quickly to deal with any crises that arise during fire season and are related to fire. Use good crisis management skills and practices.

- Notify State Director and State External Affairs/Communication Chief of emerging issues, so that these trends can be passed up the ladder prior to a local issue becoming a national issue.

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After Fires Strike…

Suggestions for Fire Managers and Staff

- Task your resource advisor (a specialist from your unit assigned to an IMT or fire) with developing a list of rancher concerns as you move into rehabilitation and fire recovery phases.

- This list would include things like fences, gates and cattle guards damaged in suppression (but not repaired); ponds or stock tanks depleted by suppression work; fuel/chemical spills, etc. (These things might be missed by fire rehabilitation work done by firefighters during the latter stages of suppression.)

- Communicate these concerns to the Burned Area Rehabilitation team in the delegation of authority.

- Meet formally or informally with affected ranchers or grazing permittees as fire transitions from suppression to rehabilitation. Use this as an opportunity to listen and understand concerns; and strengthen your relationship with individuals in this group and the group as a whole.

- Be sure that local businesses have the opportunity to compete for contracts related to rehab activities.

- Address grazing resting needs and reasons openly and honestly. Work with affected ranchers to have the least impact on their operations.

- Ensure that messages going to the media and special publics describe the critical needs and risks that post-fire rehabilitation work addresses: preventing erosion or mitigating its effects; preventing the further invasion of noxious weeds; etc. Ensure that the communication describes the **risks of delay** in doing rehabilitation projects.

- Clearly distinguish between rehabilitation (oriented to addressing time-critical needs) and long-term fire recovery.

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Common Firefighting Tactics and Terms

Basic Explanations

Direct versus indirect attack - Depending on how intense the fire is, firefighters may work right up against the flames (direct attack), or they may move well out in front of the fire (indirect attack).

Fireline is a path built down to mineral soil which creates an unburnable barrier between the fire and it future fuel sources.

- Handline is fireline dug by crews using hand tools, like shovels and chainsaws.
- Dozer line – self explanatory.
- Fireline blasting uses explosives to rapidly clear away vegetation and make fireline.

Anchor and flank - Usually, firefighters start their work to encircle the fire at the bottom or upwind side of the fire. These points are often the safest places to create an anchor point. Any other safe feature (like a meadow, rock bluff, or road) can serve as an anchor too. After an anchor is established, firefighters construct fireline around the fire and gradually pinch it off at its head.

Engines and hose-lays are equipment used to deliver water to the fire. Engines used to be called pumper trucks. A hose-lay is a progressively built series of hoses and water handling fittings assembled by firefighters to get water to the fire.

Crews are basic units of organized sets of firefighters with specific capabilities and equipment. Hand crews usually have 20 people and are supervised by a crew boss. Engine crews typically include two wildland fire engines, staffed by three to five firefighters supervised by an Engine Module Leader.

Air Attack

Air Tankers can be large aircraft with the capacity to deliver up to 3,000 gallons of retardant, or small, single-engine "crop duster" type aircraft with a capacity of up to 800 gallons. Both have unique characteristics and are deployed according to the needs at a fire scene.

Retardant is primarily a mixture of water and fertilizer with a thickening agent that allows it to coat vegetation and slow the spread of a fire. A red coloring is added so firefighters and aviators can see where it's been delivered.

Helicopters support firefighting in many ways, including bringing in firefighters, hauling supplies, and providing reconnaissance of the fire.

Smokejumpers are firefighters who get to the fire by parachuting from aircraft.

Rappelers are firefighters who slide down ropes from hovering helicopters.

Air Tactical Group Supervisors (typically called Air Attack) are airborne coordinators who manage the aviation resources over a fire.

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Natural Barriers may be a rock outcropping, a sandy wash with sparse or no fuels, a body of water, a rocky canyon or any other landscape feature that serves to slow or stop the spread of a fire. Firefighters take advantage of these natural barriers as anchor points or other strategic points whenever possible.

Escape Routes are critical to safe firefighting and are protected or hazard-free pathways which allow a safe retreat should the fire take an unexpected turn or conditions change that endangers firefighters' safety.

Safety Zones are areas where there is no fuel, such as a sandbar, a riverbed, or a rocky area; or it may be in a "black" area where the fire has already burned. Safety zones, accessed by escape routes, provide firefighters a safe place to gather when a fire takes and unexpected turn or conditions change such that the fire behavior temporarily prevents safe operations on the fireline.

Fire Behavior refers primarily to a wildfire's intensity and rate of spread. Factors that influence a fire's behavior include weather, topography, and both the type and condition of the fuels.

Burning out and backfiring are techniques which use fire to deny the main fire a continuous source of fuel. Burning out generally means burning the fuels inside completed fireline. Backfiring generally means setting a fire against something pressed into service as a control line, like a ridge, a road, a river or creek, or a meadow. Backfiring is riskier tactic and is often used when the fire is so big or moving so fast it leaves firefighters with few if any options.

The **Incident Command System** (ICS) is an organizational framework that enables all personnel assigned to the fire to work together, know their jobs, and focus on common objectives. ICS is widely used throughout the United States and in many parts of the world.

Incident Management Teams are preconfigured sets of specialists who assume specialized roles in a team given the responsibility to fight a fire. Incident management teams are organized under the Incident Command System.

LCES is an acronym used by all firefighters and supervisors. It stands for **Lookouts, Communications, Escape routes and Safety zones**. If firefighters have these four basic safety elements figured into their strategy and tactics, they will tend to keep themselves safe and healthy on a fire.

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Responding to Wildfire

Resource Mobilization and Priorities

The nation's interagency wildland fire organization is a vast network that includes a mix of federal and state agency fire programs and, through agreements, many local, county and community fire departments trained to respond to wildfires. Additional resources are available through contracting from private entities.

"Resources" throughout this network include any and all types of firefighting personnel and equipment; from a single volunteer fire department engine to a highly skilled federal hand crew, a dozer, a helicopter, an incident management team, and so on. Also, throughout this network wildland fire response priorities are: first, protecting the life and safety of the public and firefighters; second, protecting property and infrastructures; and third, protecting natural resources.

A Three-tiered Organization

When a fire ignition occurs and is reported, it activates the first level of response in what is best described as a 3-tiered system. This first tier can be an initial response from a local BLM office, a local partner such as a community or rural fire department, or a combination of local sources. These resources are dispatched from one of several hundred local and interagency fire dispatch offices across the country.

This initial response is based on a concept of "closest forces" where the goal is to quickly respond and contain a fire while it's small regardless of land ownership or jurisdiction. This concept recognizes that fires cross ownership and jurisdictional boundaries and whatever agency or department with the closest available resources responds first.

Once at the scene, however, if more than one entity responds, the fire is typically managed by the department or agency having responsibility for the land where the fire originates. In some instances, there may be a "unified command" structure where two or more entities share the management role; the BLM and a local department, for instance.

If a fire grows to a size and complexity that exceeds the local area's capability to respond and manage the incident, a broader response is sought at the second tier, or geographic area. Nationwide, there are 11 Geographic Area Coordination Centers, each having access to and the capability to mobilize firefighting resources from a wider area.

If response needs exceed the capability of the Geographic Area Coordination center, requests are elevated to the third tier, which is the National Interagency Coordination Center at the National Interagency Fire Center in Boise. This tier has access to and the ability to mobilize national response resources across the nation, coordinate the movement of local resources across geographic areas, or seek additional assistance from the U.S. military or international partners if needed.

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Setting Priorities

Based on historical averages, forecasts, and budgets, the fire community plans each year to have sufficient resources available to meet the potential needs of a fire season. But these resources are finite. When fire activity is high or multiple fires are occurring simultaneously, and there is competition for the same resources, fire managers must set priorities.

At each tier in the organization, available resources are mobilized and committed based on the priorities of protecting life, property and resources – in that order. In some cases, at all three levels, resources are pre-positioned based on fire condition forecasts and predicted fire activity.

Local fire managers make priority decisions for their immediate area. At the Geographic Area level, a multi-agency coordinating group, consisting of fire leaders from interagency partner organizations, relies on local input to set priorities over a large geographic area. Similarly, the National Multi-Agency Coordinating group, consisting of fire directors representing federal and state fire programs at the top tier, relies on input from the Geographic Areas and the Predictive Services group at the National Interagency Fire Center, to make priority decisions nationally.

With the rapid and ongoing growth of wildland-urban interface areas and associated increased threats to the public and property, fire managers continually face an increased challenge in setting priorities for a limited number of resources. What this means is that not all fires, particularly lower priority fires, will get all the resources they request all of the time.

However, the focus will continue to be on the priorities of life, property and resources; and fire-line managers throughout the three tiers are well-trained to adapt their tactics and strategies to achieve the most efficient use of the resources they have available.

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Wildland Fires

Common Questions and Answers

How does the BLM decide what crews to send to a fire, and who sets the priorities?
Across the nation, the wildland fire community is a complex network that includes a mix of federal and state agency fire programs and, through agreements, many local, county and community fire departments trained to respond to wildfires. Firefighting resources includes everything from a rural fire department engine to a specialized federal hand-crew, to a helicopter, and any other personnel, aircraft or equipment available for wildland fire response.

These resources are dispatched through any one of hundreds of BLM, interagency, or local dispatch offices across the country based on the concept of "closest forces." In other words, even on BLM land, a local fire department may be the first on the fire scene and will manage the fire until the closest BLM crews arrive.

In all cases, fire operations are managed according to the priority of protecting life and safety first; and property and natural resources second. Regardless of who is managing fire operations at any given time, those priorities, in that order, are followed.

Overall, the fire community is organized to respond according to a 3-tiered system. If a fire, or multiple fires, grow in size and complexity beyond the capability of the local BLM and other resources, a request for assistance goes to the next tier, the closest Geographic Area Coordination Center, of which there are 11 nationwide.

If enough appropriate response resources cannot be obtained in the geographic area, the request goes to the third tier, which is the National Interagency Coordination Center located in Boise, Idaho at the National Interagency Fire Center. Here, coordinators have access to and the ability to mobilize response resources across the nation.

While local fire managers take actions based on the priorities outlined above, an interagency group of fire managers at the Geographic Area and National levels balance competing requests and mobilize resources to those same priorities; namely, those fires posing the greatest threat to life, and then property and natural resources.

I've got a water truck that I use to refill stock ponds, how can I get reimbursed for making it available to help firefighters?
You can contact your local BLM office fire program and sign up your water truck, tractor, or any other equipment for use as needed on a fire. They will do an inspection to ensure your equipment meets the appropriate standards, and work with you to fill out the documents allowing you to be reimbursed for your time and equipment when called upon. Doing this has a number of benefits: it provides you reimbursement for your time and equipment; it establishes a business relationship with the fire program; it helps fire managers know what equipment and resources may be available locally; and it provides for cooperation and safety – for you and for fire crews – when fire occurs.

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Why can't I go out with my tractor and disk and fight a fire that's on my allotment or my own property, especially when it sometimes takes hours for a BLM crew to arrive?
Many times, a fire has been put out or kept small by ranchers or other local people who are first on the scene. If a fire occurs on your private property, you certainly have the right to go after it. Regardless of ownership, however, if you choose to respond to a fire we do ask that you stop and coordinate with fire crews once they arrive. This is purely a consideration and necessity for your safety and that of the firefighters.

There are many examples of tractors or other equipment getting burned, and potentially serious injuries or fatalities occurring without such coordination. If you are working on the fire line and fire personnel don't know where you are and have no communication with you, both you and firefighters can be placed in a serious and dangerous situation.

The incident commander is ultimately responsible for the safety of everyone at the fire scene. Your assistance is welcome, as long as communication has been established and actions are coordinated.

You can be of most help, however, by providing your knowledge of the local area. Fire crews and fire managers can benefit tremendously from your knowledge of the local landscape, water sources, access roads and conditions, the locations of livestock that may be threatened, fence lines and gates, natural barriers such as rock outcroppings or areas with sparse fuels, and more. Your assistance in this regard is far more effective and valuable to fire managers than anything you could do on the fire line.

Why do I sometimes see fire crews taking a break and even sleeping when a fire is burning?
This is usually a case of there being more to the story than meets the eye. Fatigue is frequently cited as a cause when fire-related accidents, injuries, and fatalities occur. As a result of years of accident investigations and study, firefighters must follow a fairly rigid set of work-rest policies. Although an incident commander has the discretion during initial attack operations to extend a workday beyond the recommended 2:1 ratio (8 hours of rest for 16 hours worked), there will be a time when a break is not only advisable but required.

In some cases, a fire crew may arrive from another fire or location having worked on one or more fires for several days and then driving to the fire where you are. They may be required to get some rest before taking action on the fire line.

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What tactics are best for fighting a fire?
You will likely hear terms such as anchor and flank. Fire crews always establish a starting point, or anchor, on the upwind side of the fire and near the fire's origin. This might be a road, a river or streambed, a rock outcropping, or any place where there is no fuel to burn. From this anchor point, they will work around the edges of a fire, called flanks, toward the head, or the downwind, most active part of the fire. They will work to encircle the entire active fire with a fire line.

Depending on terrain, fuels, and weather conditions, firefighters may take either direct or indirect actions to contain a fire. A direct attack is when fire crews work next to the flame, and either extinguish flames with water from an engine, or build fireline to remove fuel adjacent to the flames. If conditions are not favorable to this type of attack, they may back off and use an indirect method, such as using a road or natural barrier from which to burn out fuel in the path of the fire to stop its advance.

Occasionally, firefighter will use a retardant line as a barrier from which to work.

What is retardant that is dropped from aircraft and how does it work?
Retardant is a mixture of water, fertilizer, and a thickening agent. Red coloring is added so that firefighters and fire aviators can see where a drop has landed, determine its effectiveness, and have subsequent aircraft know where to continue building the line.

Retardant is typically used in conjunction with firefighters on the ground and can be used in both direct and indirect attacks. It works by coating the vegetation to retard ignition and can be dropped in heavy or light concentrations, depending on the ground fuels.

Why must firefighters move away from the fire line while an aircraft drops a load of retardant?
For safety. Some large airtankers can drop approximately 2,500 gallons along a fire line, and small, single-engine airtankers typically drop 500 to 800 gallons. Both aircraft drop at relatively low levels.

Water alone weighs more than 8 pounds per gallon. Imagine being hit with hundreds of gallons of retardant, or what could be the force of several thousand pounds, dropped at high speed and low levels. It may result in serious injuries or fatalities. There are instances of wildland fire engines being hit directly by retardant drops that did serious damage to the vehicles and caused severe injuries to firefighters.

Due to the safety concerns, pilots will not drop their loads if anyone is in the direct path. If you are on a fire and see an air tanker, large or small, pass over without dropping their load, you may be the reason. Please move away from the fire so they can get the retardant on the ground; it does no one any good inside the airplane.

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What are safety zones and escape routes?
Safety zones are areas without burnable fuels where firefighters can go if wind or other factors change a fire's behavior in a way that threatens the life and safety of firefighters. A safety zone may be a road, a green area, or it can be a black area where the fire has already passed.

An escape route is a pathway that firefighters would use to retreat to a safety zone. This might be along the fireline, a road, livestock or wildlife trail, or any route that is protected from the flames and allows safe egress from the fire.

Because conditions and fire behavior can change rapidly, particularly on rangeland fires, firefighters maintain a situational awareness of their surroundings, escape routes, and safety zones.

Who can I talk to about what actions are being taken during a fire in my area?
There is usually a resource advisor assigned to a fire. This individual is often a rangeland management specialist or other staff member knowledgeable about range resources, grazing allotments, and so on. The resource advisor works closely with both the fire managers and the public and is a good source of information.

The BLM duty officer, who is at the local dispatch office, is also a good source for information about the fire. He or she is in constant contact with the incident commander at the scene and is more accessible and available to provide information.

At times it is possible to talk directly with the incident commander at the fire. Please keep in mind, however, that this individual is typically very busy managing operations.

Note to managers: This packet includes a template for a glove-box sized, tabbed pamphlet that has blanks for useful names and phone numbers. These are designed to hand out to ranchers and others to keep in their vehicle for quick reference.

Is it true that firefighters really like to see fires get big so they can make more money?
It is true that firefighters earn marginally more money when on the fireline than during other times. However, the BLM takes pride in hiring individuals who are professional, have high ethics and integrity, and who will always do the right thing. They are there to protect lives, property and resources; and the notion they would allow a fire to spread for financial gain is a myth.

Earning Bridges

In fire language, what's the difference between a fire being contained and controlled?
A fire is contained when crews have completed a line around the entire edge of the fire and its spread has been stopped. The fire is not deemed controlled until all smokes near the line and across the interior of the burn have been extinguished (called "mop-up") or have burned out, and the line is secure.

Fire crews will often monitor a burned area through an entire burning period, or the heat of the day, before calling a fire controlled.

Who is responsible for fixing fences cut by firefighters?
Fire crews will generally repair fences they've cut to gain access before they leave a fire scene. If an entire fence line has been damaged, or posts are burned beyond use, these fences will typically be repaired or replaced by the BLM at a later time or during the fire rehabilitation phase.

Why is sagebrush included in rehabilitation projects, when it doesn't provide good forage for my cattle?
Rehabilitation projects on public land are designed to meet a number of goals for multiple uses. A healthy landscape is one that has a diversity of vegetation to provide not only forage for livestock, but habitat for wildlife, soil retention, aesthetic values, and competition to minimize the encroachment of weeds, and particularly cheat grass. Sagebrush plays an integral role in many Western ecosystems, primarily for the valuable habitat it provides for birds, particularly for sage grouse.

Earning Bridges

Post-Fire Emergency Stabilization and Rehabilitation

Once the smoke clears, the aftermath of a fire can have long-term impacts on the land and vegetation, and on those who rely on the land for their livelihood. Although post-fire work and impacts may vary significantly depending on the size and severity of the fire, the terrain, pre-fire conditions and other factors, a number of issues typically face land managers and land users. These include:

- Wind and water erosion and the loss of soil
- Invasion of noxious weeds and other undesirable plants
- Loss of pasture use
- Displacement of wildlife
- Loss of improvements, like fences and signs
- Disturbances created by off-road fire traffic and dozer lines

Assessments of the scope and extent of post-fire needs often begin before a fire is controlled. In some instances, it's critical that some actions are taken immediately, to be followed by longer-term rehabilitation efforts. It is equally critical that land users and other constituents understand post-fire processes and the reasons for them.

Emergency stabilization

At times, a fire will do such severe damage to soils and on slopes or in other ways that land managers must take immediate actions to stabilize the natural resources. Emergency Stabilization is defined as "planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life and property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources."

These actions may include such efforts as building temporary check dams in drainages or terracing and trenching slopes or using other tools to prevent or minimize erosion and soil movement. It may also include immediate reclamation and seeding of dozer lines and other areas where short-term soil stability is a concern; and repairing critical fence lines to limit access to the area.

In many cases, fire crews will conduct some of this work before leaving a fire scene.

Rehabilitation

Rehabilitation is focused on the longer-term recovery of a burned area and is defined as "efforts undertaken to repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by fire."

While these efforts can occur within two to three of years of a burn, actions are typically taken within months after a fire in rangeland ecosystems. Not all burned areas are rehabilitated, however, depending on considerations of size (smaller fires likely will not be rehabilitated), the likelihood of a natural recovery, and the likelihood of success.

Earning Bridges

The goal of both emergency stabilization and rehabilitation is to emulate historical or pre-fire ecosystem structure, function, diversity, and dynamics consistent with approved land management plans, or if that is infeasible, then to establish a healthy, stable ecosystem in which native species are well represented.

While some publics, particularly the ranching community, may prefer to see rehabilitation work and seeding projects be designed to improve their economic use of the land and vegetation, land managers must strive to meet diverse, multiple uses including grazing, wildlife habitat, and soil retention, protection of cultural sites, and more.

The greatest post-fire impact on the public and particularly the ranching community is a loss of access and use. According to most policies, an area must be rested, with access and use restricted, for two years and maybe longer until rehabilitation objectives are met. This can pose an economic hardship on permittees who must then find other pastures or make other changes in their livestock management programs.

It is important that BLM managers be sensitive to these impacts to land users. Positive relationships can be maintained through ensuring these publics have the information they need to understand the process throughout the stabilization and rehabilitation stages.