

Forest Service 2016 Wildland Fire Risk Management Protocols

A Vision for Risk Management in Fire

The 1995 Federal Wildland Fire Management and Program Review, which is the basis of all interagency fire management efforts, recognized the importance of risk management, stating that “*Sound risk management is a foundation for all fire management activities.*” Twenty years later, that statement still rings true, and applies to both planned and unplanned fire. As our work continues to expand, with increasing complexity, longer fire seasons and more challenging fire behavior, we must rely on risk management principles to guide our actions in order to keep our firefighters and the public safe in a dangerous environment.

The Chief’s stated vision for success in the 2016 fire season is to “*Implement strategies and tactics that commit responders only to operations where and when they can be successful, and under conditions where important values actually at risk are protected with the least exposure necessary while maintaining relationships with people we serve*”.

1. **Life First - everyone goes home.** We cannot accept any loss of life; while we are well aware of the challenges and the hazards our people face every day in the fire environment, together we can work to eliminate unnecessary exposure and increase the odds that everyone goes home in 2016.
 - It means that knowing the dangers we face, we still expect that our personnel will not engage unless they can do so with the greatest margin of safety.
 - We expect our emergency responders to refuse assignments where hazards cannot be satisfactorily addressed.
 - We ask people to take risks in fire every day, sending them to work in environments that are known to be hazardous, but we should only do so where the values we have determined threatened justify the risks and the probability of success is high.
 - The way to achieve our goal of zero fatalities is to train, to practice risk management, to think, to communicate, and to foster a learning environment to seek smarter ways to meet our objectives in every situation, and to learn and improve every day.

2. A Focus on Initial Response. In 2016 we must address a specific concern about the safety of our emergency responders during initial response. Please work with all of our fire personnel to discuss the following topics:

- The fire community commonly refers to this as “initial attack.” Because words are important in conveying meaning and intent we propose to discuss “initial response” which implies a more deliberate, thoughtful approach.
- Our intent is for all Incident Commanders (Type 1 – Type 5) to act deliberately, not urgently, and to engage in critical thinking before engaging or committing resources and to revisit the plan and assumptions frequently to adapt to changing conditions.
- Initial response is often the most chaotic and dangerous phase of the fire, when the situation is rapidly developing and many critical decisions must happen in a compressed time frame with limited information.

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- Often during this time compressed initial response phase our fire personnel may be faced with competing objectives or requests to accept more risk than we are comfortable with or even to act beyond our training, especially in cross-jurisdictional situations. That is the time to pause, to think, to communicate and to consider other approaches. It's all right to say "no," and to work together to formulate a better way to safely meet objectives.
- The wildland urban interface creates a particular challenge. Initial response is the wrong time to plan how to respond in these complex environments. Thorough pre-season planning with our partners who have jurisdiction in the WUI is critical to our ability to assist our partners safely. The pre-season planning for WUI must set clear expectations and define limitations.

3. The Cohesive Strategy.

The National Cohesive Wildland Fire Management Strategy is the framework upon which we should build our wildland fire risk management protocols. Developed by interagency leaders from across the country, the vision for the Cohesive Strategy is:

*To safely and effectively extinguish fire when needed;
use fire where allowable; manage our natural resources;
and as a nation, to live with wildland fire.*

The primary national goals identified as necessary to achieving the vision are:

- **Restore and maintain landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
- **Fire-adapted communities:** Human populations and infrastructure can withstand a wildfire without loss of life and property.
- **Wildfire response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

Use the goals and vision of the Cohesive Strategy to frame pre-season discussions with partners and engagement with firefighters and Incident Management Teams.

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Forest Service Wildfire Response Protocol

In concert with the Federal Fire Policy, sound decision making for wildfire response relies on identifying reasonable objectives for protection of critical values at risk, while considering the amount and quality of firefighter exposure and probability of success. This protocol is broken down into three phases; **Pre-Season** (*Engaging the fire before it starts*); **During Incident** (*Managing incident uncertainty and inherent risk*) and **After Incident** (*Learning and improving*).

PHASE I – PRE-SEASON

Pre-season preparedness is critical to a successful response when a fire starts. We expect to add additional emphasis in pre-season conversations internally and with our partners to discuss lessons learned in 2015 and improve our collective risk management. In addition to the annual fire refresher and work capacity test, we need to address other aspects of preparedness. The following should be accomplished Pre-Season, before a fire starts:

- Build decision maker and key stakeholder capacity to manage the uncertainties and inherent risks of fires.
 - Increase understanding of risk management with key stakeholders and partner agencies.
 - Build Agency Administrator capacity to perform as risk managers.
- Build Incident Management capacity and improve skills, including Type 4 and 5 Incident Commanders in operational risk management to ensure success of Agency Administrators Assess risk at a landscape level, looking at National Forest Systems (NFS) lands and those adjoining lands that may be impacted by a fire leaving NFS land. Compare the assessments to the goals and objectives in the Land Resource Management Plan (LRMP).
 - Develop a common understanding of values to be protected by answering three questions; ‘What is important?’ ‘Why is it important?’ and ‘How important is it?’
 - Complete a risk analysis, with key stakeholders and partner agencies, to predetermine the optimal response strategies for protecting values at risk. Engage key stakeholders and partner agencies in tabletop exercises or other venues to ensure alignment.
 - Initiate dialogue with line officers and stakeholders aimed at understanding, acceptance, and support for alternative risk-based decisions. This is especially important where there is an expectation that a fire will become a long-term event, because of an opportunity to use fire to achieve land management objectives, and/or the need to adjust the level of engagement based on exposure of responders to risk, lack of available resources and the level of risk toward values to be protected.

PHASE II – DURING INCIDENT

The **During Incident** phase tests our pre-season work and our ability to apply risk management principles. As acknowledged by the National Cohesive Strategy for Wildland Fire Management:

“Safe aggressive initial attack is often the best suppression strategy to keep unwanted wildfires small and costs down.”

We prefer to discuss “initial response” rather than “initial attack.” This strategy should be applied to initial response where the pre-identified values to be protected are at the greatest risk. Decisions will be

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based on firefighter/aviator/public safety, values at risk, and probability of success. Sound financial management will be implemented but costs are an output of the best risk informed decisions to protect values.

Should a fire escape our best initial response efforts, we must be prepared to manage the uncertainty and inherent risk associated with an emerging incident. We recognize that compressing our actions by time and space limits our options and may transfer risk to our firefighters. Keeping fires small may or may not be the best strategy to reduce risks and costs. To be successful in the **During Incident** phase, we should follow the objectives outlined below in the **Standards for Managing Incident Risk**:

Standards for Managing Incident Risk

Complexity and potential risk of incidents varies greatly. Implementation of these standards requires careful judgment; as the potential risk of an incident increases, the successful risk manager will increase his or her due diligence in meeting these standards.

1. **Complete an Incident Risk Assessment**
 - Develop an assessment of what is at risk (from preseason work or input from key stakeholders for boundary incidents), probabilities and consequences of harm, and possible mitigations.
2. **Complete a Risk Analysis**
 - Consider alternatives (objectives, strategies and tactics) against desired outcomes, respondent exposure, probability of success, and values to be protected.
3. **Complete Two-Way Risk Communications**
 - Engage community leaders, local government officials, partners, and other key stakeholders associated with the incident to share the risk picture and enlist input.
4. **Conduct Risk Sharing Dialogue (using the 10 Questions Framework referenced in the “Red Book”, Chapter 05)**
 - Engage line officers in dialogue aimed at understanding, acceptance, and support for the alternatives and likely decision.
5. **Make the Risk Informed Decision**
 - Develop a time frame or conditions for when to revisit the decision.
6. **Document the Risk** assessment, analysis, communication, sharing, and decision in WFDSS.
7. **Continue Monitoring and Adjusting** as necessary or as conditions change.
 - Monitor incident situation; conduct during incident reviews and revise the risk process as warranted by changing conditions. Document the rationale for key decisions and significant events in WFDSS periodic assessments. Re-engage stakeholders and senior officials as appropriate. Significant changes will likely require updates to the published decision and risk support work.

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The Five “Rights”

Effective communication between Agency Administrators and Incident Commanders is essential to safe, efficient and effective management of incidents, using:

- the **Right Plan** (developed to address reasonable objectives with the least firefighter exposure necessary);
- in the **Right Place** (engage the fire in a location where we have a reasonable probability of success);
- at the **Right Time** (under favorable conditions for efficient and effective suppression);
- with the **Right Assets** (use only those suppression assets needed to safely implement tactics in support of reasonable objectives. Where resources are not available, adjust the plan.); and
- for the **Right Duration** (release assets as soon as they are no longer needed or other actions to reduce exposure duration).

Careful attention to these five “*Rights*” will limit unnecessary exposure and expenditure.

PHASE III – AFTER INCIDENT

As a learning organization we should strive to improve how we do business and seek to learn from each incident. The following **After Incident** tasks support that process:

- Complete an incident After Action Review.
 - Engage IMT’s, AA’s and key stakeholders in an incident Review to determine what did and did not work, and suggest improvements.
- Conduct a peer review after action process.
 - Engage others who have had similar incidents to learn strategies for improvement.
- Implement plans for improvement.
 - Identify who is responsible for ensuring the identified improvement plans are implemented.
 - Monitor and report where and when existing fuels treatments were or were not effective.

Prescribed Fire Risk Management Protocol

The application of prescribed fire presents one of the best opportunities for addressing risk long term while achieving our land management objectives on a meaningful scale. Prescribed fire presents an inherent level of risk. The Chief’s intent for prescribed fire is that it be managed with the same rigor, oversight, and risk-informed decision-making we undertake in our wildfire response. In addition to the principles described in the Chief’s Letter of Intent, we also embrace the following protocol and associated principles specific to prescribed fire risk:

PHASE I – PRE-SEASON, NFMA/NEPA PLANNING

1. Risk Analysis Blending Science with Experience – Engage in meaningful risk analysis to identify threats to values, potential benefits from various management interventions, the risks involved with initiating action as well as risks related to not taking action (no action does not equal no risk). Use the best available information and appropriate analytical tools along with the intuitive knowledge that exists among our experienced workforce, cooperators, and partners.
2. The Reward Justifies the Risk - When considering the use of prescribed fire, make reasoned and informed risk management decisions. We will only proceed when we have determined that

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prescribed fire is the most practical method of those available, for achieving the desired results and that the expected benefits warrant the perceived risks.

4. No Surprises – Over-inform, don't under-inform; engage stakeholders, don't wait for them to come to you.
 - Build stakeholder and community support by seeking buy-in at every opportunity from risk analysis through project development; don't wait until it is time to implement.
 - Coordinate prescribed burns with appropriate partners.
 - Communicate with appropriate adjacent land management agencies, communities, elected officials, etc., about intention to conduct prescribed burns within the local areas, especially those located near communities.
 - Where possible, distribute interagency notifications (press releases) within communities to inform the public of the intention to conduct prescribed burns.
5. Engage in Risk Sharing Dialogue - The focal point for managing risk in the prescribed fire program lies in fostering the partnership between agency administrators at all levels and their supporting fire management staffs.

Forest Supervisors will communicate with their Regional Forester and/or designated staff about their planned prescribed fire program prior to each anticipated burning season. This dialog not only meets the policy requirement for the Regional Forester to provide program oversight, but also serves as the basis for the Regional Office's understanding and support of your program. Line officers and fire managers at all levels will maintain this dialog on a continual basis. The goal is for all of us to better understand the nature of the prescribed fire program's aims, its risks, and the role that each of us plays in supporting each other as we deliver this vitally important program. As part of the dialog with the Region, Forest Supervisors should be prepared to communicate the following:

- Anticipated summary of planned prescribed fire projects along with any operational concerns that they should be aware of. (Number of projects, complexity levels, objectives to be achieved, relative unit sizes, duration, WUI, etc.)
- Describe any controversial issues associated with implementing the prescribed fires.
- Describe the unit's intent for engaging all line officers, interagency cooperators and fire staffs as the prescribed fire projects are implemented.
- What impact do extenuating circumstances such as extended drought conditions, insect infestation, neighboring development, etc. have on the planned projects?
- How have you engaged with the public, our cooperators and other partners and made them aware of your upcoming burns(s)? Will cooperators be involved in implementation?
- What will be the trigger for wildfire declaration and what is the plan's reliance on and availability of contingency resources?
- Are there other aspects of your program they should know about?

In turn, the Regional Forester and Forest Supervisor will be prepared to discuss with their subordinate line officers and staff:

- Who at the Forest/District is delegated authority to approve prescribed fire plans and authorize their ignition at the Low, Moderate, and High complexity levels? (must meet training, certification, and documentation requirements per FSM 5140, FSH 5109.17, and Forest Service Fire and Aviation Qualifications Guide)

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- The Regional Forester or Forest Supervisor may be required (at National PL 4/5) or elect to exercise additional oversight of the prescribed fire program (national/regional conditions including resource availability, weather, changed fuel conditions, or social/political sensitivities). Regional Foresters and Forest Supervisors should be prepared to describe the conditions that will trigger additional dialog, concurrence, or approval by the next higher authority and the particulars of how that process will take place.

PHASE II – PRESCRIBED FIRE IMPLEMENTATION

Prescribed Fire as Part of the Overall Fire Management Workload – Prescribed fire is not separate from but must be integrated with the overall fire management workload which includes wildfire response, prevention, etc. Prescribed fire is a central function of a comprehensive fire management program and we plan, train, and execute it accordingly.

We continue to strive to develop procedures and standards for prescribed fire implementation and wildfire response that are as similar as practical to improve performance and reliability in all FAM operations through the use of common ideals, terminology and practices.

The “Five Rights” is also an effective communication and planning tool for the management of prescribed fire:

- the **Right Plan** (is defined by the Complexity Analysis and Prescribed Fire Burn Plan);
- in the **Right Place** (where we have identified priority areas for treatment and have a reasonable probability of success in applying prescribed fire);
- at the **Right Time** (when we are within our identified window of conditions for burning that are favorable for efficient and effective operations and desired outcomes);
- with the **Right Assets** (those assets needed to safely implement the burn(s) in support of objectives including firefighter & public safety and protection of values potentially at risk – reference Holding Plans, Contingency Plans, Staffing & Action Plans, etc.); and
- for the **Right Duration** (there is sufficient time to implement and secure the burn(s) in order to avoid critical fire weather events, smoke incursions, or similar concerns).

PHASE III – LEARNING AND CONTINUAL IMPROVEMENT

As a learning organization implementing a prescribed fire program, we must improve our overall program delivery by seeking to capture and transfer lessons learned on a continual basis. Consider implementing the following actions which support that process:

- On prescribed fire projects as in wildfire suppression, every operational period should strive to conclude with a short After Action Review (AAR) to continually hone firefighter awareness and information sharing.
- Periodically, complete Seasonal Reviews for prescribed fire program, preferably soon after the end of a prescribed fire season.
 - Include fire management, resource staff, and line officers with focus not only on operational concerns, but also administrative, natural resource, and risk management concerns.
 - Look outside the organization; engage key stakeholders and cooperators to find out what did and did not work for them and solicit suggestions for improvement.
- Conduct peer-to-peer review of after action findings.

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- Engage other prescribed fire program leaders and share experiences, find commonalities, and devise strategies for improvements.
- Share what you have learned.
 - Through Forest-Wide, Regional, and National meetings and trainings.
 - Through Prescribed Fire Consortia and other communities of practice.
 - Through the Wildland Fire Lessons Learned Center.
- Prepare and implement plans for improvement.
 - Monitor and report fire effects against project objectives.
 - Engage leaders at the Forest, Regional, and National Level to share your lessons, identify strategies for improvement, and identify tasks required to pursue those strategies, and determine who will be responsible for pursuing each task.