FIRE DANGER RATING COMPONENTS, APPLICATIONS, AND MANAGEMENT TOOLS

Contents

OBJECTIVE(S)

Upon completion of this lesson, participants will be able to:

1. Discuss the purpose of the FDOP as it relates to other preparedness plans, such as the Staffing, Preparedness, Prevention, Response and Restriction plans.
2. Associate Staffing, Preparedness, Response, and Adjective Fire Danger Rating Levels with target groups.
3. Discuss "best practices" which support successful application of fire danger in preparedness planning, development and implementation.

NARRATIVE

I. INTRODUCTION

This lesson will provide a broad overview of the “best practices” relating to the Fire Danger Operating Plan (FDOP) analysis process. In addition, this lesson will provide a glimpse of fire danger tools included in the FDOP which support wildland fire preparedness decisions.

II. PURPOSE OF THE FIRE DANGER OPERATING PLAN

Wildland fire managers operate in a complex, interagency environment. Fire operations are constantly challenged with competing priories, changing environmental conditions, budget constraints, and a host of other factors. For these reasons, it is imperative fire managers use the best science-based, decision-support tools available to inform operational, day-to-day decisions which result in positive outcomes.

Despite the fact the National Fire Danger Rating System (NFDRS) has been available to wildland fire managers for over 30 years, it remains an underutilized tool. The Fire Danger Operating Plan provides the framework for informed decisions; however, it is the process of interagency collaboration and operational implementation with NFDRS providing meaningful information which will result in unbiased and defensible decisions.

The *Interagency Standards for Fire and Fire Aviation Operations* (Red Book) states:

> *“The FDOP process blends science, historical data, established processes, and local knowledge to provide a unified framework for local interagency unit managers/administrators to make informed decisions that result in safe, efficient, and effective responses to fire situations.”*

III. DEFINITION OF "BEST PRACTICE"

For the purposes of this workshop, "Best Practice" refers to a recommended procedure, process, application, or concept that has proven to be important for the successful development and implementation of an interagency Fire Danger Operating Plan.

Best Practices were included in the NFDRS2016 Rollout Workshops to share the experience of subject-matter experts who have successfully developed and implemented Interagency Fire Danger Operating Plans.

> *Best Practice refers to a recommended procedure, process, application, concept or methodology that, through experience, has proven to be reliable for the successful development and implementation of an interagency Fire Danger Operating Plan.*

For consistency and probability of success, it highly recommended that FDOPs adhere to the "Best Practices" presented in this workshop.

IV. FDOP RELATIONSHIP TO PREPAREDNESS PLANS

For most Federal agencies, the FDOP is considered supplemental to the Fire Management Plan; it documents an analysis which supports preparedness decisions and subsequent actions for a local fire management unit. This schematic provides an illustration of the relationship of the Fire Danger Operating Plan to the subordinate preparedness plans (i.e. staffing plan, prevention, etc.).

A. Preparedness Planning

Fire preparedness is the state of being ready to provide an appropriate response to wildland fires based on identified objectives. Preparedness is the result of activities that are planned and implemented prior to fire ignitions. Preparedness requires identifying necessary firefighting capabilities and implementing coordinated programs to develop those capabilities. Preparedness requires a continuous process of developing and maintaining firefighting infrastructure, predicting fire activity, implementing prevention activities, identifying values to be protected, hiring, training, equipping, pre-positioning, and deploying firefighters and equipment, evaluating performance, correcting deficiencies, and improving operations. All preparedness activities should be focused on developing fire operations capabilities and on performing successful fire operations.

Preparedness activities will be consistent with direction in the approved Land Management Plan (LMP) and in the Fire Management Plan (FMP). FMP content may be represented in a variety of methods, including map sheets or posters (sometimes referred to as a “Spatial FMP”), and/or displayed and accessible by electronic devices.

Interagency policy and guidance require numerous unit plans and guides to meet preparedness objectives. Some of these plans and guides are inter-related; some plans and guides provide the basis for other plans/guides as shown in this schematic. The FDOP guides the application of information from decision support tools (such as NFDRS) at the local level and is supplemental

to agency Fire Management Plans (FMPs). The FDOP documents the establishment and management of a fire weather station network and describes how fire danger ratings will be applied to local unit fire management decisions. The actual implementation of the fire business thresholds is described in the following supplemental action plans:

1. Staffing Plan

   The Staffing Plan describes escalating responses that are usually noted in the FMP. Mitigating actions are designed to enhance the unit's fire management capability during short periods (one burning period, Fourth of July or other pre-identified events) where normal staffing cannot meet initial attack, prevention, or detection needs. The decision points are identified and documented in the FDOP; the associated decisions and planned actions are located the Staffing Plan.

2. Preparedness Level Plan

   Preparedness plans provide management direction given identified levels of burning conditions, fire activity, and resource commitment, and are required at national, state/regional, and local levels. Preparedness Levels (1 to 5) are determined by incremental measures of burning conditions, fire activity, and resource commitment. Fire danger rating is a critical measure of burning conditions. The Preparedness Levels are identified and documented in the FDOP; the associated decisions and planned actions are located the Preparedness Plan.

3. Prevention Plan

   Prevention plans document the wildland fire problems identified by a prevention analysis. This analysis will not only examine human-caused fires, but also the risks, hazards, and values for the planning unit. Components of the plan include mitigation (actions initiated to reduce impacts of wildland fire to communities), prevention (of unwanted human-caused fires), education (facilitating and promoting awareness and understanding of wildland fire), enforcement (actions necessary to establish and carry out regulations, restrictions, and closures), and administration of the prevention program. The analysis of fire problems and associated target groups in the NUIFC are documented in the FDOP; the associated decisions and planned actions are located in the Prevention Plan.

4. Restriction Plan

   A Restriction Plan is an interagency document that outlines interagency coordination efforts regarding fire restrictions and closures. An interagency approach for initiating restrictions or closures helps provide consistency among the land management partners, while defining the restriction

boundaries so they are easily distinguishable to the public. Based on the fire danger, managers may impose fire restrictions or emergency closures to public lands. Decision points when restrictions and/or closures should be considered are identified and documented in the FDOP; the associated decisions and planned actions are located in the Restriction Plan, which is usually located within the Prevention Plan.

B. Wildfire Response

1. Initial Response Plan

Initial response plans, also referred to as run cards or pre-planned response plans, specify the fire management response (e.g. number and type of suppression assets to dispatch) within a defined geographic area to an unplanned ignition, based on fire weather, fuel conditions, fire management objectives, and resource availability. Response levels are identified and documented in this FDOP. The number and type of suppression resources dispatched to a reported fire is documented in the associated Initial Response Plan.

2. Local Mobilization Plan

The Mobilization Plan identifies standard procedures, which guide the operations of multi-agency logistical support activity throughout the coordination system. The Mobilization Plan is intended to facilitate interagency dispatch coordination, ensuring the timeliest and most cost-effective incident support services available are provided. Communication between Units, GACCs, State, Regional Offices and other cooperative agencies are addressed. The Mobilization Plan is updated annually and distributed to fire managers and dispatch staff.

It is considered a “best practice” to plan and implement all wildfire response in conjunction with interagency partners. Agencies that choose to develop individual wildfire response actions will be neither efficient nor effective.

C. Fuels Management

Prescribed fire plans require NFDRS input for defining prescription criteria and thresholds. Both live and dead fuel moisture are derived from NFDRS calculated values.

The Prescribed Burn Approval Act of 2016 became PUBLIC LAW 114–275 on December 14, 2016. It states that the Forest Service “shall not authorize a prescribed burn on Forest Service land if, for the county or contiguous county in which the land is located, the national fire danger rating system indicates an extreme fire danger level.”

V. MANAGEMENT TOOLS / DECISION-SUPPORT

The ability to regulate, educate, or control a user group will be based upon the interface method and how quickly they can react to the action taken. Consequently, the most appropriate decision tool would depend upon the sensitivity of the target group to the implementation of the action. In addition, each action will result in positive and/or negative impacts to a user group. In selecting a component and/or index, several factors must be considered:

D. **Affected Target Group**: The group of people commonly associated with the problem (e.g., agency, industry, or public).

1. ***Agency***: Employees of the federal, state, and local governments involved in the cooperative effort to suppress wildland fires. This includes federal, state, and county land management employees, along with volunteer fire departments who share a similar protection mission to manage wildland fires.

2. ***Industry***: Employees affiliated with organizations which utilize natural resources and/or obtain permits or leases to conduct commercial activities on federal, state, or private lands. These entities or activities could include ranchers, wilderness camps, railroads, mines, timber harvesting, filming, building construction, oil and gas, electric generation, guiding services, etc.

3. ***Public***: Individuals who use public lands for non-commercial purposes such as off-highway vehicle (OHV) use, camping, hiking, hunting, fishing, skiing, firewood gathering, agriculture, mountain biking, general travel and

recreation. This group also includes those living within the wildland/urban interface (WUI).

This table below is an example of some common fire problems and typical management tools used to solve those fire problems.

Fire Danger Plan	Fire Danger Level	Ability to Modify Behavior	Possible Target Group Associations		
			Public	Industry	Agency
Response Plan	Response Level	High			✓
Staffing Plan	Staffing Level	High			✓
Preparedness Level Plan	Preparedness Level	High			✓
Prevention Plan • Sign Plan • Restriction / Closure Plan	• Adjective Fire Danger Rating Level	Low	✓		
	• Industrial Fire Precaution Level	Moderate		✓	

VI. SUMMARY

The development of a Fire Danger Operating Plan (FDOP) should always be a collaborative interagency effort. When all cooperative agencies are involved in the development of a joint (single) interagency FDOP. It is neither effective or efficient to have separate, single-agency FDOPs when the planned response involves multiple jurisdictions. Fire Danger does not respect jurisdictional boundaries. Rarely do wildland fire agencies have sole suppression responsibilities within the boundaries of their respective Fire Center (Dispatch Center).

BEST PRACTICE: INTERAGENCY FDOPS

It should be the intent of local fire management organizations to collaborate with cooperating agencies in the development of an interagency Fire Danger Operating Plan (FDOP).

The public expects an appropriate response to wildland fires without delay; response protocols should be consistent across jurisdictional boundaries. The public expects a dependable and collaborated Fire Danger message; industry expects uniform rules/regulations/stipulations; and our agency personnel should have a seamless interagency fireground to operate within without the need to

comply with differences affected by multiple preparedness decisions of adjoining administrative boundaries.

Keep in mind that the FDOP is an analysis and planning document establishing the decision points as an outcome of an interagency fire business analysis; the FDOP does not specify what those decisions or actions will be. The subordinate plans to the FDOP (such as Staffing, Response, and Preparedness Level plans) are intended to outline the specific actions taken at the thresholds determined in the FDOP. Those actions could be different for each agency (where it makes sense); however, the thresholds established in the FDOP remain consistent across jurisdictions within each Fire Danger Rating Area (FDRA), regardless of what each agency decides to do at each threshold.

REVIEW OBJECTIVE(S)

Upon completion of this lesson, participants should be able to:

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