

## 7 - Preparedness



### Preparedness

BLM maintains appropriate levels of preparedness to meet agency fire management objectives. Preparedness is based on the assessment of fuel and weather conditions from the National Fire Danger Rating System (NFDRS) or, for Alaska, the Canadian Forest Fire Danger Rating System. Preparedness plans, seasonal risk analyses, and severity funding are based at a minimum on locally produced fire danger operating plans.

### Fire Danger Operating Plan

The fire danger operating plan documents the establishment and management of the local unit fire weather system, and incorporates NFDRS fire danger modeling in the local unit fire management decisions. (It should not be confused with the National Weather Service Fire Weather Operating Plan.) Fire danger operating plans will be standard in FY99.

A fire danger operating plan has the following minimum components:

- Roles and Responsibilities – Defined for those responsible for maintenance and daily implementation of the plan, program management related to the plan and associated training.
- Fire Danger Rating Areas – Aggregates of basic response areas, fire danger rating areas are defined by location of weather stations and NFDRS fuel models, slope classes and climate classes. In most cases the fire danger rating areas will be the same as fire management zones (FMZ) developed in the most current fire planning process. Training for development of fire danger rating areas is available at NARTC.
- NFDRS Thresholds – Thresholds, or breakpoints, are used to define fire danger input to management decisions in each fire danger rating area. Activities, events and fire operations affected by fire danger are identified, and appropriate NFDRS components or indices are selected as decision guides. Historical analysis of fire weather data is used to identify thresholds for staffing class, adjective rating, and preparedness level.
  - Staffing Class (i.e., 1, 2, 3-, 3+, 4, 5) is based on the energy release component (ERC) or the burning index (BI). It is used to make daily internal fire operations decisions.

- Adjective Rating (low, moderate, high, very high, extreme) is based on staffing class and the ignition component. It is a general description of fire danger for the purpose of informing the public.
- Preparedness Level (1–5) is based on staffing class or index value and other local/area preparedness parameters and is meant for internal management direction and operational support.

Thresholds are established for each decision class to assist all appropriate management responses. (See Table 1.) Thresholds are based on both historical weather (climatology) and fire occurrence (fire business). BLM climatological thresholds are the 80th and 95th percentiles of the appropriate component or index and are used in each weather station catalog in the Weather Information Management System (WIMS). BLM fire business thresholds are based on climatology and fire occurrence and best reflect the relevant decision points for a response area.

Fire business thresholds are developed with the Fire Information Retrieval Evaluation System (FIRES) program and used locally to define fire danger input to the preparedness plan. Training for the FIRES program is available at local, regional, and national NFDRS courses.

7

Table 1. Example of decision thresholds defined for each fire danger rating area.

Danger Rating Area	Weather Station	Fuel Model	Index	PL 1	PL 2	PL 3	PL 4	PL 5
ELK001	269999	T	BI	0 - 12	13 - 20	21 - 35	36 - 45	>45
ELK002	268888	A	BI	0 -				
ELK003	267777	C	BI	0 -				
ELK004	266666	F	Live FM	0 -				
ELK005	265555	G	ERC	0 -				

- Operational Procedures – Proper timing and settings are established on weather station catalogs, including breakpoints and greenup.

## Preparedness Plan

### Parameters of the Local Preparedness Plans

Preparedness levels are determined by using at a minimum a logical combination of the following parameters (see Table 2):

- A NFDRS component or index or other fuel moisture indicator (such as live fuel moisture study) as described by the fire danger operating plan;
- An indicator of fine fuel loadings, described as a departure from normal;
- Committed IA resources on and off unit;
- Current and expected fire occurrence (number and size of fires);
- Fire weather warnings and red flag warnings;

Table 2: An example of preparedness level descriptions

Parameters	Level 1	Level 2	Level 3	Level 4	Level 5
NFDRS	¼ FDR Areas	¾ FDR Areas	¾ FDR Areas	_ FDR Areas	_ FDR Areas
Fuel Load	Below Normal	Normal	Above Normal	Much Above	Much Above
Crew Commitment	0 -5	5 - 10	10 - 20	20 - 40	40 +
Large/Multiple Fire Activity	_	Yes	Yes	Yes	Yes
Fire Wx/Red Flag Warning		Wildcard	Wildcard	Wildcard	Wildcard

### Preparedness Level Action Items

A set of actions are taken at each planning level. Safety is the primary consideration for each of these actions. Local preparedness plans are to include, but are not limited to, the following action items. They are to serve as guides and should not duplicate items addressed in a geographic or national preparedness plan.

- Management direction and considerations.
- Fire prevention actions including closures/restrictions, media messages, signing, and patrolling.
- Prepositioning suppression resources
- Cooperation discussion and/or involvement.
- Safety considerations: safety message, safety officer.
- Augmentation of suppression forces.
- Support function: consideration given to expanded dispatch activation, initial attack dispatch staffing, and other support needs, e. g., procurement, supply, ground support, and communication.
- Resource area and support staff availability outside of fire organization.
- Communication of fire weather and red flag conditions.

- Fire danger/behavior assessment.
- Briefings for management and fire suppression personnel.
- Fire information-internal and external.
- Multi-agency coordination groups/area command activation.
- Prescribed fire direction and considerations.

## Mobilization Guide

The National Interagency Coordination Center (NICC) at the National Interagency Fire Center (NIFC) is responsible for cost-effective and timely coordination of national emergency response for wildland fire suppression. This is accomplished through planning, situation monitoring and expediting resource orders between the federal wildland fire agencies and their cooperators.

The *National Interagency Mobilization Guide* contains standard procedures that guide the operations of multi-agency logistical support activity throughout the coordination system. It is designed to accommodate amendments as needed, and will be retained as current material until amended. Local mobilization guides should be used to supplement the *National Interagency Mobilization Guide*.

7

Geographic areas will provide NICC with two copies of their mobilization guide and will provide amendments as issued. Local mobilization guides should be prepared on an interagency basis. Local units will provide their geographic area coordination center with two copies of their mobilization guide and amendments as issued.

## Seasonal Risk Analysis

Seasonal risk analysis analyzes present and future fire danger for any given area.

Seasonal risk analysis requires fire managers to step back, review current and predicted weather and fuels information, compare this information with historic weather and fuels records, and predict the upcoming fire season's severity and duration. It is important to incorporate drought indices into this assessment.

Seasonal risk analysis information can be used to modify step-up and pre-attack plans. It provides the basis for actions such as pre-positioning critical resources, requesting additional funding, or modifying memoranda of understanding (MOU) to meet anticipated needs.

Each field office selects and compares to normal the current value and seasonal trend of one or more of the following indicators which are most useful in predicting fire season severity and duration in its area:

- NFDRS (or CFFDRS) index values (ERC, BI)
- Temperature levels

- Precipitation levels
- Humidity levels
- Palmer Drought or Standardized Precipitation Index
- 1000-hour fuel moisture (timber fuels)
- Vegetation moisture levels
  - Live fuel moisture (brush fuels)
  - Curing rate (grass fuels)
- Episodic wind events (moisture drying days)
- Unusual weather events (e.g., early severe frost)
- Fires to date

The seasonal trend of each selected indicator is graphically compared to normal and all-time worst. This comparison is updated regularly and posted in dispatch and crew areas.

If the risk analysis suggests that an abnormal fire season might be anticipated, a field office should notify the state office and request additional resources commensurate with the escalated risk.

Local risk analyses should be compiled at the state office to determine the predicted fire season severity within the state, and then forwarded to the Office of Fire and Aviation for use in determining national fire preparedness needs.

Risk analysis is on-going. It should be reviewed periodically and revised when significant changes in key indicators occur. All reviews of risk analysis, even if no changes are made, should be documented.

## Severity Fund Guidance

### Objective of Fire Severity

Fire severity funds are used to improve initial attack response capabilities when abnormal fire conditions occur that result in fire seasons starting earlier than normal, lasting longer than normal, or exceeding average high fire danger rating for prolonged periods. Abnormal conditions exceed the weather and fire history conditions used in the fire management workload analysis to determine the most efficient and effective organization and therefore should exceed the planned workload. Typical uses of severity funds are to: temporarily increase firefighting staffing, pay for standby, preposition initial attack suppression forces in areas of abnormally high fire danger, provide additional aerial reconnaissance, standby aircraft availability, increased prevention activities, and other supplemental contractual services. These funds are not provided to restore lost funding or to raise funding levels to those identified in the fire management plans as the most efficient level (MEL), and thus are not an "augmentation" in funding. The authorization to use suppression operations funds for severity preparedness is controlled by individual project approval tied to dollar ceilings, time frames and

the preparedness resources. Regardless of the length of severity authorization, funding activities must be terminated when abnormal conditions no longer exist. There are two levels of severity funds: state and national.

*State Level Severity Funds* Each fiscal year, state directors have the authority to spend up to \$100,000 for state “short term” severity needs. Short-term needs refer to special preparedness activities that address situations anticipated to last less than a week. State directors are responsible and accountable to ensure these funds are used only to meet objectives of severity, and that amounts are not exceeded.

Each state office is responsible for establishing a process to document needs, approvals, and how the funds are utilized. At a minimum the process should require the field office to document the reason for the request by providing some technical data, e.g., wind events, cold dry front passage, lightning events, unexpected social events such as motorcycle rallies, and contain a line officer’s or formally delegated official’s signature. The request and the state’s decision should be maintained in a state office severity file.

7

Every fiscal year the national Office of Fire and Aviation will provide each state with a project number to implement state level severity funding activities. The national office will also notify the state director, state budget officer and the SFMO when the number is provided and will request the National Business Center (NBC) to enter the projects in the accounting system.

*National Level Severity Funding* The director of the Office of Fire and Aviation has the authority to allocate to states funds from the suppression operations subactivity for specified preparedness activities and specified time frames (two weeks to 30 days) that will increase preparedness capabilities. The need for these funds must be based upon fuels and weather conditions which are creating, or have the potential to create, abnormal fire protection workloads. The following is the process to implement the use of these funds:

**Request** – A formal documented request should be concise and at a minimum contain the following information:

- Quantification of need – Quantification of needs requires that all of the following items be addressed and that at least one must be shown to demonstrate that fuel and weather conditions exceed those used in the fire management workload analysis and, therefore, the planned workload.
  - Fire danger models – Using fire danger analysis software (Firefamily Plus, FIRES, or PC Season), that graphically displays the current seasonal trend for ERC and/or BI vs. all-time worst and historical average.
  - Precipitation/drought - Palmer or standardized precipitation indices that specify the departure from normal.
  - Fuel loading - Quantitative information comparing current to the average.

- Fuel moisture - Live and dead fuels for current vs. average, and the all time worst. (Local current fuel moisture [Note: data from the normalized difference vegetation index (NDVI) and the Great Basin Live Fuel Moisture Project may be a week old or older], compared to the average, trend, and all time worst provided by NDVI and/or Great Basin Live Fuel Moisture Project reports.)
  - NWS 30-day weather outlook.
- Amounts, types, and costs – In a table format identify the requested preparedness resources (see sample below).
  - Narrative statement – Provide a brief statement of the interagency situation (local and/or geographic). Note: Each agency should request funds only for its own needs, not for the needs of another agency. Sharing resources when all parties have needs is desirable.
  - Approval signature – The request should contain the signature and date of the relevant line officer.
  - Severity file – Set up a severity file where all documents are maintained for reference, monitoring, and evaluation.
  - Modifications and extensions – Extensions and modifications to the request(s) are made through the same process.

#### Sample Field Office Severity Request

Item	Quantity	Unit Cost	Total Cost
Type 4 engine	1	use rate per day (not FOR)	\$\$\$\$
Engine crew labor	5	average cost/day	\$\$\$\$
Engine crew travel/per diem	5	Government rate	\$\$\$\$
SEAT	1	daily minimum & hourly rate	\$\$\$\$
Type 3 IC labor	1	average cost/day	\$\$\$\$
Type 3 IC travel and per diem	1	Government rate	\$\$\$\$

**Responsibilities/Approval Process**

<b>Responsibility/Actions</b>	<b>Responsible Official</b>
Identify and develop request.	Field Office, FMO
Approve and transmit to state office.	Field Office, Line Officer
Review, technical analysis, verify, modify, and consolidate requests within 48 hours.	State Office, SFMO
Identify and add to the request state needs not efficiently met by field offices.	State Office, SFMO
Approve and transmit to Director, Office of Fire and Aviation (informally notify fire budget staff).	State Director
Review, technical analysis verification, modification within 48 hours.	Office of Fire and Aviation

7

Approve and transmit to NBC, Washington Office budget, and state director/SFMO.	Office of Fire and Aviation
Establish projects in FFS within 24 hours.	NBC, Accounting Group
Notify field office(s) and state budget lead on receipt of national office approval.	State Office, SFMO
Execute severity project, monitor program and expenditures on a real-time basis.	Field Office
Severity files: include requests, approvals, summary of expenditures and activities.	Field/State/National Offices

**Appropriate Severity Charges (When Not on Wildland fires)**

*Labor*

- Labor cost coding
  - BLM fire personnel outside their activation period should charge all time to the suppression operations subactivity (2821) and the requesting office's severity project number.
  - BLM employees whose regular salary is not funded by fire management should charge all time to suppression operations subactivity (2821) and the requesting office's severity project number.

- BLM employees hired above the normal staffing (Administratively Determined (AD)) should charge all time to the suppression operations subactivity 2821 and the severity number of the requesting office.
- Non-federal employees should charge all time to the suppression operations subactivity and the requesting office's severity number. A task order for reimbursement will have to be established and is authorized under the Interagency Agreement for Fire Management.
- Other federal agency fire employees (BIA, FWS, USFS, NPS) within their activation period should charge base salaries to their home unit and their overtime to the suppression operations subactivity 2821 and the severity number of the requesting office. A task order for reimbursement will have to be established and is authorized under the Interagency Agreement for Fire Management.
- BLM fire funded personnel should charge their regular planned salary (base-eight) to their home unit's location code, the preparedness subactivity 2821, and the requesting office's severity project number. For example:
  - An Idaho Falls, Idaho fire management employee detailed to Arizona on a severity request codes the base-eight to: ID 030 2811 00 XXXX (the severity project number);
  - An Idaho Falls range specialist detailed to Arizona on a severity request codes the base-eight to: ID 030 2821 XXXX (the severity project number).
- Labor considerations:
  - All overtime is funded by severity unless assigned to a wildland fire. Overtime is not guaranteed; it must be based on need.
  - Severity assignments/details frequently last up to 30 days and should not be constrained by 21-day fire assignment limitations.
  - In general, personnel obtained under severity authorizations should not be used to fill wildland fire resource orders outside the local dispatch area.
  - Resources obtained under fire severity funding must be available for "immediate" initial attack regardless of the daily task assignment.
  - When personnel and preparedness resources are assigned to a wildland fire, the wildland fire number will be used. **There will be no use of any severity project number while assigned to a wildland fire.**

### *Vehicles and Equipment*

- GSA rental and mileage
- BLM-owned use rate (not F.O.R.)
- Commercial rentals and contracts

### *Aircraft*

- Contract extensions
- Call when needed (CWN) daily minimum
- Flight time related to repositioning
- Facilities to support aircraft brought on with severity funds (facility rentals, utilities, telephones, etc.)

### *Travel and Per Diem* (Detailed personnel and pre-positioning)

- All off-base per diem (travel voucher)
- Government-provided meals in lieu of per diem
- Government-provided lodging in lieu of per diem
- Airfare to and from duty station/pre-position location
- Privately owned vehicle mileage (with advance approval)
- Government vehicle mileage to and from duty station

## 7

*Supplies* Supplies are normally available in fire caches and should be not be purchased.

### Inappropriate Severity Charges

- Administrative surcharges, indirect costs, fringe benefits
- Equipment purchases
- Vehicles (including maintenance, F.O.R., repairs, upgrades)
- Radios (unless approved by the national office because of a national shortage)
- Telephones (including cellular)
- Pumps, saws, and similar suppression equipment
- Aircraft availability during contract period

## Fire Prevention/Education

BLM fire prevention programs are based on local wildland fire prevention plans (WPP) which include: 1) an assessment of risks, hazards, values and historical fire occurrence; 2) unit-wide (general) and localized (specific) prevention strategies identified and implemented; and 3) the approved prevention program funding level (workload analysis). For information on the WPP process refer to the DOI *Wildfire Prevention Analysis and Planning Guide*.

WPPs are based on average weather conditions, historical fire occurrence, normal fire behavior and expected human activities. To ensure fire prevention

strategies are properly implemented as dangerous fire conditions escalate, preparedness plans should include proactive fire prevention step-up procedures.

When a seasonal risk analysis indicates that the potential for fire behavior and/or human-caused ignitions has increased significantly, the predicted situation and the WPP should be reviewed to identify necessary general and specific prevention actions and the resources required to accomplish these additional prevention program requirements. These resources should then be requested through one of the procedures identified below.

An inclusive fire severity request includes a wildland fire prevention component, developed through interagency planning, identifying the prevention resources needed to prevent undesirable wildland fires. This can be accomplished by:

- 1) Interagency fire prevention planning to determine appropriate fire prevention resources and then requesting prevention resources through a field office or state fire severity request;
- 2) Mobilizing a “cooperative fire prevention/education team” to support interagency fire loss mitigation or to coordinate fire education efforts during periods of active prescribed burning. Refer to Chapter 20 of the *National Interagency Mobilization Guide* for procedures.

7