

Chapter 10 Preparedness

3 Preparedness Overview

4 Fire preparedness is the state of being ready to respond to wildfires based on
5 identified objectives and is the result of activities that are planned and
6 implemented prior to fire ignitions.

7 Preparedness requires:

- 8 • Identifying necessary firefighting capabilities;
- 9 • Implementing coordinated programs to develop those capabilities;
- 10 • A continuous process of developing and maintaining firefighting
11 infrastructure;
- 12 • Predicting fire activity;
- 13 • Implementing prevention activities;
- 14 • Identifying values to be protected;
- 15 • Hiring, training, equipping, pre-positioning, and deploying firefighters and
16 equipment;
- 17 • Evaluating performance;
- 18 • Correcting deficiencies; and
- 19 • Improving operations.

20 Preparedness activities should focus on developing interagency response
21 capabilities that will result in safe, effective, and efficient fire operations aligned
22 with risk-based fire management decisions.

23 Preparedness activities will be consistent with direction in the approved Land and
24 Resource Management Plan (LRMP) and Fire Management Plan (FMP).

25 Preparedness Planning

26 At the local level, preparedness planning and the resultant activities begin with a
27 Fire Danger Operating Plan (FDOP), which includes a number of other plans
28 that result in coordinated actions based on the fire situation.

- 29 • **BLM** – *Districts can use a FDOP, or Fire Danger Analysis Document*
30 *(FDAD), or Fire Weather and Fire Occurrence Analysis Document*
31 *(FWOAD) depending on which format best meets their needs.*

32 References, templates, and other supporting materials pertaining to the FDOP
33 process and related operationally-focused preparedness plans can be found at
34 <https://www.wfas.net/nfdrs2016>.

- 35 • **BLM** – *References, templates, and other supporting materials pertaining to*
36 *the FDAD/FWOAD process can be found at*
37 *<https://sites.google.com/a/firenet.gov/blm-fire-danger-site/>.*

- 1 Outputs from a FDOP process are used to support decisions found in many
 2 components of preparedness plans. These actions will ensure a unit is
 3 appropriately prepared to react to new and emerging wildfire incidents.
- 4 Preparedness plans should include, but are not limited to:
- 5 • Fire Danger Operating Plan (as specified by agency requirements)
 - 6 • Preparedness Level Plan
 - 7 • Initial Response/Pre-planned Dispatch Plan
 - 8 • Step-up/Staffing Plan
 - 9 • Fire Prevention/Mitigation Plan (as specified by agency requirements)
 - 10 • Closure/Restriction Plan (as specified by agency requirements)
 - 11 • Geographic Area Mobilization Guide (updated annually)
 - 12 • Geographic Area Draw-Down guidance (updated annually)

13 Fire Danger Rating

14 The National Fire Danger Rating System (NFDRS) and the Weather Information
 15 Management System (WIMS) are the principle applications used by the federal
 16 land management agencies to assess fire danger. At every scale, fire danger
 17 rating is a key consideration for staffing and prepositioning preparedness
 18 resources, regulating industrial activity, or placing restrictions on public lands.
 19 Because these assessments are used by and affect a wide variety of stake holders
 20 including federal and state agencies, local governments, industrial and other
 21 private entities, as well as the general public, participation in a recognized fire
 22 danger system and careful management of weather and fire data is vital to
 23 ensure accurate assessments and the consistent application of fire danger rating,
 24 especially for broader scale assessments.

25 The following requirements apply to all NFDRS-compliant weather stations
 26 managed in WIMS:

- 27 • For the primary fuel model (i.e., the first model listed in the WIMS station
 28 catalog):
 - 29 ○ Identify an appropriate Staffing index;
 - 30 ○ Identify the Staffing index breakpoints (i.e., the two highest breakpoint
 31 values and their associated percentiles*); and
 - 32 ○ Identify the number of Decision Classes (i.e., the number of Staffing
 33 Levels).
- 34 • If not already entered as the primary fuel model, also enter Fuel Model G:
 - 35 ○ Identify ERC as the Staffing index;
 - 36 ○ Identify the ERC breakpoints (i.e., the two highest ERC breakpoint
 37 values and their associated percentiles*); and
 - 38 ○ Identify the number of Decision Classes (i.e., the number of Staffing
 39 Levels).

40 * For units that have not performed detailed analysis to identify Fire Business
 41 Thresholds or Climatological Breakpoints, it is recommended to use the 90th
 42 and 97th percentiles as default values for these Critical Percentiles.

- 43 ■ *BLM – 80th and 95th percentiles*

1 Communication of Fire Danger

2 Daily Observed and Forecasted Fire Danger Outputs will be:

- 3 • Communicated daily to local fire personnel to aid in situational awareness;
- 4 and
- 5 • Should include the Staffing index and/or index/component used.

6 Fire danger will be conveyed to the public using the five Adjective Fire Danger

7 Rating classes: low, moderate, high, very high, and extreme.

8 Fire Danger Operating Plan

- 9 • *BLM – Districts can use a FDOP, or Fire Danger Analysis Document*
10 *(FDAD), or a Fire Weather and Fire Occurrence Analysis Document*
11 *(FWOAD) depending on which format best meets their needs.*

12 Ideally developed for interagency field-level operations (e.g., corresponding to
13 the area within the jurisdiction of a third-tier dispatch center), a FDOP is an
14 integral component of local fire management planning. A FDOP documents the
15 analysis process and the development of decision points to be used for future weather
16 and fire occurrence situations, based on an analysis of local conditions, historic
17 weather, and historic fire occurrence. The analysis and decision points are developed
18 using decision support tools such as the National Fire Danger Rating System
19 (NFDRS), the Canadian Forest Fire Danger Rating System (CFFDRS), the
20 Palmer Drought Index, live fuel moisture data, monthly or seasonal wildland fire
21 outlooks, seasonal climate forecasts, and wildland fire risk analyses. The analysis
22 of historic weather and fire occurrence is conducted utilizing a statistical software
23 program, such as but not exclusive to FireFamily Plus (FFP), which calculates fire
24 danger indices and can correlate them to historic fire occurrence. A FDOP process
25 blends science, historical data, established processes, and local knowledge to provide
26 a unified framework for local interagency unit managers/administrators to make
27 informed decisions that result in safe, efficient, and effective responses to fire
28 situations.

29 Every field-level unit with a fire program should be covered by a FDOP and
30 should participate in the planning process. FDOP developers should attend
31 Intermediate NFDRS (S-491) and preferably, the Advanced NFDRS level courses.
32 Units are encouraged to seek the participation of and review by NFDRS or
33 CFFDRS Subject Matter Experts when developing a FDOP. Established FDOPs
34 should be monitored, reviewed annually, and updated as necessary to ensure they
35 continue to meet the preparedness needs of the local units.

- 36 • *BLM – BLM offices are required to have a FDOP, a Fire Danger Analysis*
37 *Document (FDAD), or a Fire Weather Occurrence Analysis Document*
38 *(FWOAD) by May, 2020. BLM offices are required to complete and*
39 *document their review every other year and updated every five years.*

- 1 In conjunction with the analysis noted above, a FDOP also describes:
- 2 • Processes, such as daily input and output monitoring of the Weather
3 Information Management System (WIMS) at [https://fam.nwcg.gov/fam-
5 web/](https://fam.nwcg.gov/fam-
4 web/);
 - 6 • Tools that will be utilized to communicate fire danger information, such as
7 Fire Danger PocketCards, or seasonal trends analysis; and
 - 8 • Related products, such as staffing, dispatch, and preparedness level plans
9 (which can be included as components of a FDOP or linked, if presented as
10 separate plans).
- 11 A FDOP template can be found at <https://www.wfas.net/nfdrs2016>.
- 12 • **BLM** – *Reference templates and other supporting materials pertaining to
13 the FDAD/FWOAD process can be found at
14 <https://sites.google.com/a/firenet.gov/blm-fire-danger-site/>.*
- 15 Required minimum content for a FDOP includes the following components:
- 16 • **Roles and Responsibilities**
17 This section of a FDOP defines the roles and responsibilities for those
18 responsible for the development, maintenance and daily implementation of
19 the plan, program management related to the plan, and associated training.
 - 20 • **Fire Danger Area Inventory**
21 This section of a FDOP presents the inventory of the basic components of a
22 FDOP area, which will describe the general area, including the
23 administrative units involved in the planning process. The fire danger area
24 inventory will include:
 - 25 ○ Fire history, as well as identification of fire/ignition issues specific to
26 the area;
 - 27 ○ Description of vegetation/fuels, topography, and weather/climatology
28 resulting in the delineation of specific Fire Danger Rating Areas
29 (FDRAs), which are broad landscapes (typically, on the scale of tens or
30 hundreds of thousands of acres each) that are considered to have
31 relatively homogeneous fire danger;
 - 32 ○ The existing weather station network and identification of any
33 additional weather station system needs; and
 - 34 ○ Validation that each Remote Automated Weather Station (RAWS)
35 meets the requirements of the *Interagency Wildland Fire Weather
36 Station Standards and Guidelines* (PMS 426-3).
 - 37 • **Operational Procedures**
38 This section of a FDOP establishes the procedures used to gather and
39 process data in order to integrate fire danger rating information into
40 decision processes. The network of fire weather stations whose observations
41 are used to determine fire danger ratings is identified. Station maintenance
42 responsibilities and schedules are defined. Include:
 - 43 ○ Daily weather processing schedule and procedures;
 - Daily communication schedule and modes;

- 1 ○ Seasonal station catalog adjustment schedule and responsible
- 2 personnel;
- 3 ○ Annual review of decision points and responsible personnel; and
- 4 ○ Periodic review of PocketCards or other communication methodology
- 5 and responsible personnel.
- 6 ● **Decision Point Analysis**
- 7 This section of a FDOP describes the analysis of climatological breakpoints
- 8 and fire business thresholds that trigger changes in fire danger-related
- 9 decisions within an FDRA. Decision points are identified using statistical
- 10 analysis software such as but not limited to FFP. Distinct selections of fuel
- 11 model and fire danger index/component (NFDRS or CFFDRS) are appropriate
- 12 for different management decisions (such as staffing, initial response, or
- 13 industrial and public restrictions).
- 14 Because Fire Business Thresholds correlate periods of historical fire danger
- 15 and fire occurrence, they generally provide the best decision support and are
- 16 appropriate for identifying Staffing Levels, Dispatch Levels, fire
- 17 restrictions, Preparedness Levels, fire prevention activities, and other
- 18 specific readiness actions. Climatological Breakpoints, which are expressed
- 19 as percentiles, may be appropriate as decision points for longer term
- 20 decisions and general preparedness activities, such as seasonal staffing
- 21 start/end dates or contract aircraft availability periods.
- 22 *Note: WIMS relies exclusively on Climatological Breakpoints to compute*
- 23 *Staffing Level and Adjective Rating. If Fire Business Thresholds are used as*
- 24 *decision points, Staffing Level and Adjective Rating must be computed*
- 25 *outside of WIMS.*
- 26 ● **Fire Danger-based Decisions**
- 27 This section of a FDOP describes the decision points used in Step-
- 28 up/Staffing Plans, Initial Response/Pre-planned Dispatch Plans,
- 29 Preparedness Level Plans, Prevention Plans (which include how Adjective
- 30 Fire Danger Ratings are determined and will be applied),
- 31 Closure/Restriction Plans, etc. It should include the rationale for the fuel
- 32 model and index/component selection and the corresponding decision
- 33 points for each of those plans. The plans may be included in a FDOP or be
- 34 stand-alone plans.

35 Preparedness Level Plans

36 Preparedness Level Plans are required at the national, state/regional, and local
37 levels. These plans address the five Preparedness Levels (1-5) and provide
38 management direction based on identified levels of burning conditions (fire
39 danger), fire activity, resource commitment/availability, such as incident
40 management teams assigned, and other considerations (in contrast to Staffing
41 Levels, which typically only consider fire danger, as described below).
42 Preparedness Level Plans may be developed by a state/regional office for
43 agency-specific use.

- 1 Supplemental preparedness actions to consider include, but are not limited to, the
2 following items:
- 3 • Management briefings, direction, and considerations;
 - 4 • Support function: consideration given to expanded dispatch activation and
5 other support needs (procurement, supply, ground support, and
6 communication);
 - 7 • Support staff availability outside of fire organization;
 - 8 • Fire danger/behavior assessment;
 - 9 • Fire information – internal and external;
 - 10 • Multi-agency coordination group/Area command activation; and
 - 11 • Prescribed fire direction and considerations.
- 12 Refer to the *National Interagency Mobilization Guide* and GACC Mobilization
13 Guides for more information on Preparedness Level Plans.

14 **Step-up/Staffing Plans**

15 Step-up/Staffing Plans are designed to direct incremental preparedness actions at
16 the local level in response to changing fire danger. Each plan should address the
17 unit's chosen number of Staffing Levels, and the corresponding actions to
18 consider for those changing fire danger conditions, as reviewed annually. The
19 Step-up/Staffing Plan should be based on analysis completed as part of the unit's
20 FDOP and the analysis rationale, if not the entire plan, should be included as
21 part of a FDOP.

22 **Staffing Level**

23 The Staffing Level should be used to guide daily internal fire operational
24 decisions at the local level. The Staffing Level specifies appropriate daily
25 staffing for initial response resources, such as when to implement 7-day
26 coverage and adjusted work schedules, and the number of personnel committed
27 to initial attack resources (in contrast to the Initial Response/Pre-planned
28 Dispatch Plan – described below – that specifies the number of resources
29 dispatched to an incident). Staffing Level helps define “How ready to be
30 today?” A unit can operate with 3 to 9 levels of staffing. Most units typically use
31 5 (1, 2, 3, 4, 5) or 6 (1, 2, 3L, 3H, 4, 5) levels. The use of Fire Business
32 Thresholds to determine Staffing Levels is encouraged; however, they must be
33 computed outside of the WIMS.

34 The Step-up/Staffing Plan describes pre-identified escalating responses at fire
35 business or climatological thresholds analyzed in a FDOP and FMP. A Step-
36 up/Staffing Plan should also include recurring supplemental preparedness
37 actions designed to enhance the unit's fire management capability during short
38 periods (Fourth of July, or other pre-identified events) where staffing normally
39 needs to be increased to meet initial attack, prevention, or detection needs.

40 The Staffing Plan should also consider supplemental staffing actions such as, but
41 not limited to, the following items:

- 1 • Fire prevention actions, including closures/restrictions, media messages,
 - 2 signing, and patrolling;
 - 3 • Prepositioning or augmentation of suppression resources;
 - 4 • Cooperator discussion and/or involvement;
 - 5 • Safety considerations: safety messages, safety officer;
 - 6 • Increased initial attack dispatch staffing; and
 - 7 • Increased detection activities.
- 8 In contrast to staffing actions established for the normal range of conditions,
- 9 severity is a longer duration condition that cannot be adequately dealt with under
- 10 normal staffing, such as a killing frost converting live fuel to dead fuel or drought
- 11 conditions. Severity is discussed later in this chapter.

12 **Initial Response/Pre-planned Dispatch Plans**

13 Local-level Initial Response/Pre-planned Dispatch Plans, also referred to as run

14 cards, specify the fire management response (e.g., number and type of

15 suppression assets to dispatch) within a defined geographic area to an unplanned

16 ignition, based on fire weather, fuel conditions, fire management objectives, and

17 resource availability.

18 Fire Management Officers will ensure that Initial Response/Pre-planned

19 Dispatch Plans are in place, utilized, and provide for initial response

20 commensurate with guidance provided in the FMP and/or LRMP. Initial

21 Response/Pre-planned Dispatch Plans will reflect agreements and annual

22 operating plans, and will be reviewed annually prior to fire season. These plans

23 may be modified as needed during fire season to reflect the availability of

24 national, prepositioned, and/or severity resources.

25 **Fire Prevention/Mitigation Plans**

26 Unit-level Fire Prevention/Mitigation Plans may be required and completed by

27 conducting a wildland fire prevention/mitigation assessment. The purpose of the

28 plan is to develop a strategy that will identify actions to reduce unwanted human-

29 caused ignitions, thereby reducing wildland fire damages and losses,

30 unnecessary risks to firefighters, and suppression costs. As fire danger moves

31 from low to extreme, as defined in a FDOP, and/or human activity increases,

32 prevention and mitigation activities must be increased to maintain effectiveness.

33 The Prevention/Mitigation Plan outlines how the Adjective Fire Danger Ratings

34 are communicated to the public, and applied, in terms of responsible personnel

35 and assigned activities. Prevention activities are intended to reduce the occurrence

36 of unwanted human-caused fires and include, but are not limited to:

- 37 • Education (signage, school programs, radio and news releases, recreation
- 38 contacts, local business contacts, exhibits);
- 39 • Engineering (public utility company, government agency/cooperator
- 40 coordination);

- 1 • Enforcement/industrial program monitoring (patrol, permitting, inspections
2 including firewood cutting, logging, mining, power line maintenance, and
3 area closures); and
- 4 • Administration (patrol, communication, FDOP, sign and other plans and
5 planning activities).
 - 6 ○ **BLM** – Refer to *BLM MS-9212 – Fire Prevention*.
 - 7 ○ **NPS** – Only units that experience more than an average of 26 human-
8 caused fires per ten-year period are required to develop a fire
9 prevention plan.
 - 10 ○ **FWS** – Prevention assessment determines requirement for prevention
11 plan. Refer to *Fire Management Handbook Chapter 10*.
 - 12 ○ **FS** – Refer to *FSM 5110*.
 - 13 ○ **BIA** – Refer to *90IAM 1.4C (6) – H, BIA National Wildfire Prevention*
14 *Handbook for guidance, available at*
15 *[https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-](https://www.bia.gov/bia/ots/dfwfm/bwfm/wildfire-prevention-and-education/prevention-resource-library)*
16 *education/prevention-resource-library*.

17 **National Fire Prevention Education Teams**

18 National Fire Prevention and Education Teams (NFPETs) provide unit and
19 agency managers with skilled and mobile personnel which have the ability to
20 supplement or enhance ongoing local wildfire prevention and education
21 activities, where hazard or risk is, or is expected to be, elevated above normal.

22 Teams are highly effective in their ability to reduce unwanted human-caused
23 wildland ignitions and are equipped to rapidly complete on-site prevention
24 assessments and plans, initiate implementation of such plans, and to begin
25 immediate prevention and education activities.

26 A basic team is composed of three personnel with these minimum qualifications:

- 27 • 1 PETL – Prevention and Education Team Leader;
- 28 • 1 PETM – Prevention and Education Team Member; and
- 29 • 1 PIO2 – Public Information Officer Type 2.

30 Actual team composition may include additional support positions, as
31 determined jointly by the team leader and the ordering unit, on a case-by-case
32 basis, based on the team’s anticipated tasking. The use of trainees is encouraged.

33 NFPETs can assist the local unit in preventing unwanted human-caused
34 wildfires in several ways. They can assist the local unit to:

- 35 • Complete fire risk assessments;
- 36 • Determine the severity of the situation;
- 37 • Facilitate community awareness and education in fire prevention including
38 prescribed burning;
- 39 • Coordinate announcement of interagency restrictions and closures;
- 40 • Coordinate fire prevention efforts with the public, special target groups,
41 state and local agencies, and elected officials;

- 1 • Promote public and personal responsibility regarding fire prevention in the
 - 2 wildland/urban interface; and
 - 3 • Assist Incident Management Teams in accomplishing their objectives in
 - 4 working with the public to develop fire protection plans.
- 5 To order an NFPET, place the order with the regional GACCs. See the National
- 6 Interagency Mobilization Guide for additional information on ordering and
- 7 using NFPETs.

8 **Fire Danger PocketCard for Firefighter Safety**

9 Fire Danger PocketCards provide, through a graphical interpretation of historic

10 fire danger, a means for firefighters to understand the fire potential for a given

11 local area during any day of the fire season. PocketCards apply to areas of

12 uniform fire danger rating, known as FDRAs, which should be developed

13 through an interagency FDOP process (if FDRAs aren't defined, PocketCards

14 may be developed based on other areas of like fire danger). The PocketCard can

15 also be an ideal tool for local seasonal tracking of fire season severity with the

16 addition of daily indices (see "Local Unit Seasonal Tracking" section). The Fire

17 Danger PocketCards must adhere to the NWCG standard located at

18 <https://fam.nwcg.gov/fam-web/pocketcards/default.htm>.

19 PocketCards should be updated following a significant fire season but;

20 otherwise, based on the length of the station or Special Interest Group (SIG)

21 dataset:

- 22 • 10 years or less of historic weather data, update PocketCard annually;
- 23 • 11-14 years, update every other year;
- 24 • 15 years or more, update every 3 years.

25 In all cases, a high quality database should be used; i.e., 5 years of poor data and

26 10 years of good data does not equal 15 years of quality data.

27 Compliance with the standard, including quality, currency, and application of

28 the PocketCard, is the responsibility of the local fire management unit.

- 29 • **BLM** – *All units will develop, maintain and ensure either a PocketCard or*
- 30 *a Seasonal Trend Analysis is available to all personnel. Alaska is required*
- 31 *to complete a Seasonal Trend Analysis in lieu of PocketCards. Seasonal*
- 32 *Trend Analysis must be updated and posted at least every two weeks during*
- 33 *fire season and PocketCards must be updated at least every other year.*
- 34 *Final approval for PocketCards and Seasonal Trend Analyses will be*
- 35 *obtained from the BLM representative to the NWCG Fire Danger*
- 36 *Subcommittee (current contact information available at*
- 37 *<https://www.nwcg.gov/committees/fire-danger-subcommittee/roster>).*
- 38 • **BLM** – *FA IM-2018-022 describes BLM required criteria for a Seasonal*
- 39 *Trend Analysis.*
- 40 • **FS** – *Obtain Regional certification for Fire Danger PocketCards.*
- 41 *Distribute PocketCards to each fireline supervisor on Type 3, 4, and 5*

- 1 *wildfires. Units have the option to do more frequent updates if they choose*
2 *to do so.*
- 3 • **BIA** – *Agencies and Tribes will maintain Fire Danger PocketCards and*
4 *ensure they are available to all personnel.*

5 The NWCG standards for updating and posting the cards can be found at
6 <https://fam.nwcg.gov/fam-web/pocketcards/default.htm>.

7 **Managing Weather Data in WIMS**

8 Fire danger requires continual management in order to produce accurate results
9 that are applied in a timely manner. Some daily weather observation variables
10 (such as state of the weather) must be manually validated and published daily.
11 This procedure is essential for the calculation of daily and forecasted fire danger
12 outputs in WIMS and ensures weather data storage in the National Fire and
13 Aviation Management (FAMWeb) Database. These efforts are coordinated with
14 local National Weather Service fire weather meteorologists to provide timely
15 forecasted fire danger outputs.

16 In addition to daily weather management, certain WIMS data requires periodic
17 adjustment. The following should be adjusted seasonally or as appropriate:

- 18 • Live fuel moisture model inputs, including herbaceous vegetation stage,
19 green-up and freeze date, season codes, greenness factors.
- 20 • Dead fuel moisture model inputs, including the snow flag and starting 1000
21 hour and X1000 fuel moisture and KBDI values.

22 Decision points should be reviewed annually and adjusted, as appropriate, based
23 on statistical analysis. If decision points are adjusted, PocketCards should also be
24 validated and updated as necessary.

25 **Management Actions for Remote Automated Weather Stations (RAWS)**

26 **Noncompliance Report**

27 A weekly report from Wildland Fire Management Information (WFMI) weather
28 module displays RAWS that are more than 1 year and 45 days past their annual
29 maintenance date. Fire weather stations are to be maintained annually per
30 *Interagency Wildland Fire Weather Station Standards and Guidelines* (PMS
31 426-3). The report is widely distributed by email and available at
32 <https://famit.nwcg.gov/applications/RAWS>. If a RAWS is on the report, it has
33 either not had annual maintenance, or the documentation for annual maintenance
34 has not been completed in WFMI. Data from these RAWS should not be used or
35 used with caution.

1 Portable RAWS

- 2 Fire managers should ensure that locally held portable RAWS are maintained
3 prior to use. Non-maintained portable RAWS will not be activated for data
4 processing through WFMI weather.
- 5 • **BLM** – Refer to Chapter 2 for more guidance.

6 Predictive Service Areas

7 Predictive Service Areas (PSA) are sub-geographic areas of similar climate,
8 fuels and topography defined by Geographic Area Coordination Center (GACC)
9 meteorologists generally for forecasting purposes. The PSAs are also used to
10 display current and forecasted conditions at the national and Geographic Area
11 level, such as maps showing 7-day Significant Fire Potential and statistics
12 graphs of select indices and fuel moistures. While PSAs are defined using
13 similar criteria as Fire Danger Rating Areas (FDRAs), the PSA-based products
14 are intended for longer range prediction purposes and strategic planning at the
15 sub-geographic scale, and FDRA-based products are intended to guide daily
16 operational decisions at the unit level.

17 National Predictive Services Fire Potential Outlooks and Advisories**18 National Significant Wildland Fire Potential Outlook**

19 The National Significant Wildland Fire Potential Outlook is prepared and
20 distributed by NICC Predictive Services on the first day of each month. The
21 Outlook is a composite of outlooks prepared by the individual Geographic Area
22 Predictive Services units and national discussions prepared by NICC Predictive
23 Services. It provides fire managers at all levels with the information needed to
24 make long range decisions concerning resource staffing and allocation. The
25 Outlook identifies areas where significant wildland fire activity is expected to be
26 above or below normal levels.

27 The Outlook covers a four-month period. Maps for each period display areas of
28 below normal, normal, and above normal significant wildland fire potential. A
29 brief synopsis of the current and predicted national and GACC situation is
30 included in the report. Specific guidance on issuance and requirements for the
31 National Significant Wildland Fire Potential Outlook can be found in the
32 *National Interagency Mobilization Guide* at
33 <https://www.nifc.gov/nicc/mobguide/index.html>.

34 National 7-day Significant Fire Potential Outlook

35 The National 7-day Significant Fire Potential Outlook is a composite of outlooks
36 produced by each of the Geographic Area Predictive Services units. The 7-day
37 provides a week-long projection of fuel dryness, weather, and fire potential. The
38 7-day depicts a nationwide view of the significant fire potential for the next
39 seven days with links to the individual Geographic Area 7-day outlooks. The
40 system is database-driven and is updated periodically as each Geographic Area
41 Predictive Services unit posts its outlook. Each Geographic Area Predictive

1 Services unit will determine whether to routinely produce a morning or
2 afternoon product. Issuance times for each Area's outlook can be found in the
3 Geographic Area Mobilization Guide and/or in its National Weather
4 Service/Predictive Services Annual Operating Plan. Guidance on issuance and
5 requirements for National 7-day Significant Fire Potential Outlook can be found
6 in the *National Interagency Mobilization Guide* at
7 <https://www.nifc.gov/nicc/mobguide/index.html>.

8 **Fuels and Fire Behavior Advisories**

9 Fuels and Fire Behavior Advisories are alerts issued as needed to address an
10 exceptional or extreme circumstance that could threaten firefighter or public
11 safety. Conditions that could be reasonably expected normally do not warrant a
12 Fuels and Fire Behavior Advisory. Advisories will focus on fuel conditions and
13 fire behavior that have long term impacts, not atmospheric conditions that can
14 be found in other Predictive Services products. Advisories will highlight and
15 give specific examples of conditions that are currently on-going and have been
16 experienced in the field. Advisories should be tailored so that firefighters at all
17 experience levels can recognize the situation and act accordingly. Advisories
18 should be coordinated with neighboring administrative units to ensure that all
19 areas with similar conditions are being addressed. All Advisories that extend
20 beyond a single local administrative unit or that will be posted on the national
21 Advisory map must be coordinated with the NICC and GACC Predictive
22 Service Units. Each Advisory must include a map of the affected area. Only one
23 Advisory may be active at any time over any area. If multiple Advisory
24 conditions are present incorporate them into one Advisory. Advisories will
25 remain in effect for 14 days from issuance. If the Advisory conditions continue
26 beyond the 14 days a new Advisory will need to be issued to update conditions
27 and circumstances with more timely information. At the request of the issuer
28 Advisories may be lifted before the 14 days has passed. For the Fuels and Fire
29 Behavior Advisory Template and Protocols, see
30 https://www.predictiveservices.nifc.gov/fuels_fire-danger/fuels_fire-danger.htm.

31 **National Intelligence Products**

32 See the *National Interagency Mobilization Guide*, Chapter 60.

33 **Local Unit Seasonal Tracking**

- 34 • **BLM** – Districts can use a *FDOP*, or *Fire Danger Analysis Document*
35 (*FDAD*), or a *Fire Weather and Fire Occurrence Analysis Document*
36 (*FWOAD*) depending on which format best meets their needs.

37 As identified in the FMP and/or FDOP, each unit selects and compares to
38 normal, the current value and seasonal trend of one (or more) of the following
39 indicators which are most useful in predicting fire season severity and duration
40 in its area. By downloading daily weather observations and adding them to the
41 database, FFP or similar statistical analysis software can be used to produce the

- 1 current NFDRS, CFFDRS, and fuel moisture products, including statistical
2 graphs of various indices and components such as:
- 3 • NFDRS (or CFFDRS) index and/or component values;
 - 4 • Palmer Drought or Keetch-Byram Drought Index;
 - 5 • 1000-hour fuel moisture;
 - 6 • 100-hour fuel moisture;
 - 7 • Live fuel moisture; and/or
 - 8 • Growing Season Index.

9 The seasonal trend of each selected indicator is graphically compared to normal
10 and all-time worst (for the historical period analyzed). This comparison is
11 updated regularly and posted in dispatch and crew areas. The mechanism that is
12 recommended for comparing and displaying these items is a PocketCard and/or
13 fire danger seasonal graphs, which have been developed and used at the local
14 unit to inform and educate firefighters on local conditions. PocketCards and
15 seasonal fire danger graphs should use the same index and fuel model to display
16 information so that the two can be easily compared.

17 Any local seasonal trends of indices/components or fuel moisture values should
18 be communicated to the GACC Predictive Services unit to augment their
19 assessments. Trends should be monitored throughout the fire season and
20 communication should be on-going, particularly when significant changes in key
21 indicators occur.

22 **Fire Severity Funding**

23 Fire severity funding is the authorized use of suppression operations funds
24 (normally used exclusively for suppression operations and distinct from
25 preparedness funds) for extraordinary preparedness activities that are required
26 due to:

- 27 • FMP, FDOP, or Annual Operating Plan criteria that indicate the need for
28 additional preparedness/suppression resources. The plan(s) should identify
29 thresholds for severity needs.
- 30 • Anticipated fire activity will exceed the capabilities of local resources.
- 31 • Fire seasons that either start earlier or last longer than identified in a FDOP.
- 32 • An abnormal increase in fire potential or danger not planned for in existing
33 preparedness plans.

34 Agency established decision points or thresholds will be used to determine
35 severity funding needs.

36 The objective of fire severity funding is to appropriately manage risk and adjust
37 planned specific actions and staffing in excess of the budgeted program to
38 improve initial response capabilities and wildfire prevention activities, when
39 extraordinary weather and fire conditions may result in the occurrence, or
40 substantial threat of occurrence, of wildfires with significant damage potential.

- 1 Fire severity funding is not intended to:
- 2 • Raise preparedness funding levels to cover differences that may exist
 - 3 between funds actually appropriated and those identified in the fire planning
 - 4 process.
 - 5 ○ *BLM – Refer to Chapter 2 for more guidance.*
 - 6 ○ *NPS/FWS/FS – Mitigate threats to Threatened and Endangered*
 - 7 *Species habitat, wildland/urban interface, or other values identified in*
 - 8 *Land and Resource Management Plans.*

9 **Typical Uses**

- 10 Fire severity funds are typically used to:
- 11 • Increase prevention activities;
 - 12 • Temporarily increase firefighting staffing;
 - 13 • Pay for standby;
 - 14 • Preposition initial attack suppression forces;
 - 15 • Provide additional aerial reconnaissance; and
 - 16 • Provide for standby aircraft availability.

17 **Authorization**

18 Authorization to use severity funding is provided in writing based on a written
19 request with supporting documentation. Authorization is on a line item basis and
20 comes with a severity cost code. Agencies will follow their administrative
21 procedures for issuing severity cost codes. Authorization is provided for a
22 maximum of 30 days per request; however, regardless of the length of the
23 authorization, use of severity funding must be terminated when abnormal
24 conditions no longer exist. If the fire severity situation extends beyond the 30-
25 day authorization, the Unit/State/Region/Agencies/Tribes must prepare a new
26 severity request.

27 **State/Regional-Level Fire Severity Funding**

28 Each fiscal year the national office will provide each state/region with funding
29 and a severity cost code for state/regional short-term severity needs (e.g., wind
30 events, cold dry front passage, lightning events, and unexpected events such as
31 off road rallies, cultural events) that are expected to last less than one week.
32 Expenditure of these funds is authorized by the State/Regional Directors at the
33 written request of the Agency Administrator. State/Regional Directors are
34 responsible and accountable for ensuring that these funds are used only to meet
35 severity funding objectives and that amounts are not exceeded. The national
36 office will notify the State/Regional Director, State/Regional Budget Officer,
37 and the State/Regional FMO when the severity cost code is provided.

- 38 • *BLM – Refer to Chapter 2 and the BLM Fire Operations Website*
39 *(http://web.blm.gov/internal/fire/fire_ops/index.html) for additional short-*
40 *term severity guidance.*
- 41 • *NPS – Parks have the authority to approve “Step-up” actions only, as*
42 *defined in their fire management plan. Regional offices approve severity*
43 *(long term – up to 30 days) for parks up to \$100,000 per severity event.*

- 1 • **FWS** – Refer to the Fire Management Handbook Chapter 10 for additional
- 2 short-term severity guidance.
- 3 • **FS** – Severity funding direction is found in FSM 5130 and current FY
- 4 Program Direction.
- 5 • **BIA** – Regional Offices will establish procedures for approval and
- 6 monitoring short-term severity usage/funds within their respective regions.

7 **National-Level Fire Severity Funding**

8 National Agency Fire Directors or their delegates are authorized to allocate fire
9 severity funding under specific conditions stated or referenced in this chapter.
10 Expenditure of these funds is authorized by the appropriate approving official at
11 the written request of the State/Regional Director. Approved severity funding
12 will be used only for the preparedness activities and timeframes specifically
13 outlined in the authorization, and only for the objectives stated above.

- 14 • **BLM** – Refer to Chapter 2 and the BLM Fire Operations Website for
- 15 additional national severity guidance.
- 16 • **NPS** – National office approves all single or cumulative requests exceeding
- 17 \$100,000.
- 18 • **FWS** – Additional information may be found on the FWS Sharepoint site.
- 19 • **FS** – Regional offices approve all severity requests.
- 20 • **BIA** – Refer to Chapter 6 for additional guidance.

21 **Appropriate Fire Severity Funding Charges and Activities**

22 Severity funded personnel and resources will not use a severity cost code while
23 assigned to wildfires. The wildfire FireCode number will be used instead.

24 **Labor**

25 Appropriate labor charges include:

- 26 • Regular pay for non-fire personnel;
- 27 • Regular pay for seasonal/temporary fire personnel outside their normal fire
- 28 funded activation period; and
- 29 • Overtime pay for all fire and non-fire personnel.

30 Severity funded personnel and resources must be available for immediate initial
31 attack regardless of the daily task assignment.

32 **Vehicles and Equipment**

33 Appropriate vehicle and equipment charges include:

- 34 • GSA lease rate and mileage;
- 35 • Hourly rate or mileage for Agency owned vehicles; and
- 36 • Commercial rentals and contracts.

37 **Aviation**

38 Appropriate aviation charges include:

- 39 • Contract extensions;

- 1 • The daily minimum cost for call when needed (CWN) aircraft;
 - 2 • Preposition flight time; and
 - 3 • Support expenses necessary for severity funded aircraft (facility rentals,
 - 4 utilities, telephones, etc.).
- 5 **Travel and Per Diem**
- 6 Severity funded personnel in travel status are fully subsisted by the government
- 7 in accordance with their agency regulations. Costs covered include:
- 8 • Lodging;
 - 9 • Government provided meals (in lieu of per diem);
 - 10 • Airfare (including returning to their home base);
 - 11 • Privately owned vehicle mileage (with prior approval); and
 - 12 • Other miscellaneous travel and per diem expenses associated with the
 - 13 assignment.
- 14 **Prevention Activities**
- 15 Appropriate prevention activities include:
- 16 • Funding Prevention Teams (Prevention teams will be mobilized as
 - 17 referenced in the National Interagency Mobilization Guide, Chapter 20).
 - 18 • Implementing local prevention campaigns, to include community risk
 - 19 assessments, mitigation planning, enforcement, outreach, and education.
 - 20 • Augmenting patrols.
 - 21 • **Note:** Non-fire funded prevention team members should charge base 8 and
 - 22 overtime to the severity cost code for the length of the prevention activities
 - 23 assignment. Fire funded personnel should charge overtime only to the
 - 24 severity cost code for the length of the prevention activities assignment.
- 25 **Inappropriate Fire Severity Funding Charges**
- 26 • To cover differences that may exist between funds actually appropriated
 - 27 (including rescissions) and those identified in the fire planning process.
 - 28 • Administrative surcharges, indirect costs, fringe benefits.
 - 29 • Equipment purchases.
 - 30 • Purchase, maintenance, repair, or upgrade of vehicles.
 - 31 ○ *NPS/FWS/BIA – Severity-related repair and maintenance of agency*
 - 32 *vehicles and equipment may be funded by severity because they do not*
 - 33 *have a use rate covering these charges. These charges must be*
 - 34 *approved by the National Office.*
 - 35 • Purchase of radios.
 - 36 • Purchase of telephones.
 - 37 • Purchase of pumps, saws, and similar suppression equipment.
 - 38 • Aircraft availability during contract period.
 - 39 • Cache supplies that are normally available in fire caches.
 - 40 • Fixed ownership rate vehicle costs.

1 **Interagency Severity Requests**

2 Agencies working cooperatively in the same geographic area must work
 3 together to generate and submit joint requests, to minimize duplication of
 4 required resources, reduce interagency costs, and to utilize severity funded
 5 resources in an interagency manner. However, each agency should request funds
 6 only for its fair-share contributions or offsets for pooled, interagency
 7 resources/activities. The joint request should be routed simultaneously through
 8 each agency's approval system, and the respective approving official will issue
 9 an authorization that specifies allocations by agency.

10 **Requesting Fire Severity Funding**

11 Each agency has established severity funding request protocols. The completed
 12 and signed request is submitted from the State/Regional Director to the
 13 appropriate approving official as per the sequence of action outlined below.
 14 Authorizations will be returned in writing.

15 Severity funding request information for all agencies can be found at

16 https://www.nifc.gov/policies/pol_severity_funding.html.

17 **Sequence of Action and Responsible Parties for Severity Funding Requests**

Action	Responsible Party
In collaboration with interagency partners, as appropriate, identify and develop severity funding request.	Unit FMO
Review, modify, and approve (or reject) request. Forward to state/regional office.	Unit Agency Administrator
Review, modify, and recommend for approval (or rejection) unit request. Add state/regional needs and consolidate. Forward to State/Regional Director for approval within 48 hours.	State/Regional FMO
Review, modify, and approve (or reject) request. Forward to the appropriate National Fire Director/approving official within 48 hours. Notify the fire budget staff.	State/Regional Director
Review, modify, and approve (or reject) the request within 48 hours. Issue written authorization with a severity cost code.	Appropriate National Fire Director/Approving Official
Establish severity cost code in the appropriate finance system within 24 hours.	Applicable National Finance System
Notify unit office(s) and state/regional budget lead upon receipt of authorization.	State/Regional FMO

Action	Responsible Party
Utilize severity cost code. Ensure that project expenditures are only used for authorized purposes. Continually assess needs and submit new requests/extensions as required.	Unit FMO
Maintain severity files, including requests, authorizations, and summary of expenditures and activities.	Unit/State/Regional/ National Offices

- 1 • *FS – Severity codes are pre-established at the beginning of the fiscal year.*
2 *Requests are approved at the regional office with a copy to the national*
3 *office for those exceeding \$250,000 or including National Shared*
4 *Resources.*
- 5 **Labor Cost Coding For Fire Severity Funded Personnel**
6 Fire preparedness personnel outside their normal activation period, employees
7 whose regular salary is not fire funded, and Administratively Determined (AD)
8 employees hired under an approved severity request should charge regular time
9 and approved non-fire overtime to the severity suppression operations
10 subactivity and the requesting office's severity cost code.
- 11 Fire preparedness personnel should charge their regular planned salary (base-
12 eight) to their budgeted subactivity using their home unit's location code.
13 Overtime associated with the severity request should be charged to the severity
14 suppression operations subactivity and the requesting office's severity cost code.
- 15 Regular hours worked in suppression operations will require the use of the
16 appropriate fire subactivity with the appropriate FireCode number. Overtime in
17 fire suppression operations will be charged to the suppression operations
18 subactivity with the appropriate FireCode number.
- 19 Employees from non-federal agencies should charge their time in accordance
20 with the approved severity request and the appropriate local and statewide
21 agreements. An interagency agreement for reimbursement must be established.
22 The Interagency Agreement for Fire Management can be used as a template.
- 23 • *FS – Firefighters under a severity order will continue to charge base salary*
24 *to a B-code and overtime to the severity S-code, even if it is outside their*
25 *funded tour. If called out to an incident these resources will be under the*
26 *same rules of charging base salary to a B-code and overtime to the P-*
27 *code. Regions must manage funding of tours within allocations*
28 *provided. Firefighters working on an incident beyond their planned and*
29 *funded tour will continue to charge their Base 8 hours to a B-code*
30 *(WFPR). Regions must contact WO FAM if they believe they might exceed*
31 *their allocations. All firefighters charge their Base 8 hours to Preparedness*
32 *job codes – either WFPR or a B-code unless they are working on other non-*
33 *fire project work outside of fire season. These situations are accounted for*

- 1 *in the allocations by basing the allocations on the last three years of salary*
2 *expenditures.*

3 **Documentation**

4 The unit/state/regional and national office will document and file accurate
5 records of severity funding activity. This will include complete severity funding
6 requests, written authorizations, and expenditure records.

7 **Severity Funding Reviews**

8 State/Regional and National offices should ensure appropriate usage of severity
9 funding and expenditures. This may be done as part of their normal agency fire
10 program review cycle.

11 **Qualification for Professional Liability Insurance Reimbursement**

12 Public Law 110-161 provides for reimbursement for up to one half of the cost
13 incurred for professional liability insurance (including any administrative
14 processing cost charged by the insurance company) for temporary fire line
15 managers, management officials, and law enforcement officers.

16 To qualify for reimbursement, “temporary fire line managers” must meet one of
17 the following three criteria:

- 18 • Provide temporary supervision or management of personnel engaged in
19 wildland fire activities;
- 20 • Provide analysis or information that affects a supervisor’s or manager’s
21 decision about a wildland fire;
- 22 • Direct the deployment of equipment for a wildland fire, such as a base camp
23 manager, an equipment manager, a helicopter coordinator, or an initial
24 attack dispatcher.
- 25 ○ **DOI** – See *Personnel Bulletin No. 08-07, March 20, 2008.*
- 26 ○ **FS** – Refer to <https://fsweb.asc.fs.fed.us/HR>.

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