

Chapter 10 Preparedness

4 Preparedness

5 Preparedness is the result of activities that are planned and implemented prior to
6 wildland fire ignitions. Preparedness is a continuous process that includes
7 developing and maintaining unit, state/regional, and national level firefighting
8 infrastructure, predicting fire activity, hiring, training, equipping, and deploying
9 firefighters, evaluating performance, correcting deficiencies, and improving
10 overall operations. The preparedness process includes routine pre-season
11 actions as well as incremental in-season actions conducted in response to
12 increasing fire danger.

13
14 Preparedness actions are based on operational plans such as Fire Danger Rating
15 Operating Plans (FDROPs). FDROPs use information from decision support
16 tools such as the National Fire Danger Rating System (NFDRS), the Canadian
17 Forest Fire Danger Rating System (CFFDRS, used in interior Alaska), the
18 Palmer Drought Index, live fuel moisture data, Monthly or Seasonal Wildland
19 Fire Outlooks, Seasonal Climate Forecasts, and Wildland Fire Risk Analyses.

21 Fire Danger Rating Operating Plan

22 A Fire Danger Rating Operating Plan is a fire danger applications guide for
23 agency users at the local level. A Fire Danger Rating Operating Plan documents
24 the establishment and management of the local unit fire weather station network
25 and describes how fire danger ratings are applied to local unit fire management
26 decisions. FDROPs should be prepared by individuals trained at the
27 Intermediate NFDRS (S-491) level, and preferably the Advanced NFDRS level.
28 FDROPs are generally prepared for local interagency areas, such as a zone-wide
29 operating plan. Interagency FDROPs are an integral component of unit fire
30 management plan(s). Fire danger rating operating plans may be packaged as
31 either stand-alone documents or as part of a larger planning effort; such as a fire
32 management plan. Fire danger rating operating plans include, but are not
33 limited to, the following components:

34 • Roles and Responsibilities

35 Defined for those responsible for maintenance and daily implementation of
36 the plan, program management related to the plan, and associated training.
37 Training for development of fire danger rating areas is available through
38 NWCG-sponsored NFDRS courses.

39 • Operational Procedures

40 This section establishes the procedures used to gather and process data in
41 order to integrate fire danger rating information into decision processes.
42 The network of fire weather stations whose observations are used to
43 determine fire danger ratings is identified. Station maintenance schedules
44 are defined as appropriate.

- 1 • NFDRS offers several choices of fuel model and output to the user.
2 Distinct selections of fuel model and index/component are appropriate
3 for different management decisions (such as internal readiness or
4 industrial and public restrictions). The choice of NFDRS fuel model
5 and index or component used to determine fire danger ratings to
6 support particular decisions is explained in this section.
- 7 • NFDRS requires periodic management in order to produce appropriate
8 results that are applied in a timely manner. Some daily observation
9 variables (such as state of the weather, fuels, red flags) are entered
10 manually. This procedure (often called “taking the weather”) also
11 initiates the calculation of daily and forecasted outputs in the Weather
12 Information Management System (WIMS) and ensures data storage in
13 the National Interagency Fire Management Integrated Database
14 (NIFMID). These efforts are coordinated with the local National
15 Weather Service fire weather meteorologists and Geographic Area
16 Coordination Center (GACC) predictive services meteorologists to
17 provide timely forecasted NFDRS outputs. Observed (afternoon) and
18 forecasted (tomorrow) NFDRS outputs are communicated daily. Live
19 fuel moisture model inputs (such as herbaceous vegetation stage,
20 season code, greenness factor) are adjusted seasonally in WIMS
21 (<http://fam.nwcg.gov/fam-web/>) at appropriate times. Decision points
22 (such as percentiles discussed below) are determined in FireFamily
23 Plus and reviewed and adjusted annually or more often as appropriate
24 in WIMS and/or other fire danger platforms.
- 25 • **Fire Danger Rating Inventory**
26 Identifies basic components of the operating plan such as dispatch response
27 areas, protection units, administrative units, fire history, land management
28 planning direction, standards, and guidelines, etc. Fire danger rating
29 inventory incorporates NFDRS fuel models, slope classes (topography), and
30 weather/climatology into fire danger rating areas; validates the existing
31 weather station network and identifies any additional stations to support fire
32 danger rating needs.
- 33 • **Climatic Breakpoints and Fire Business Thresholds**
34 Climatological breakpoints and fire business thresholds are established to
35 provide NFDRS-based decision points for all appropriate management
36 responses in a fire danger rating area. Climatological breakpoints are points
37 on the cumulative distribution of one fire weather/danger index computed
38 from climatology without regard for associated fire occurrence/business.
39 For example, the value of the 90th percentile ERC is the climatological
40 breakpoint at which only 10 percent of the ERC values are greater in value.
41 The percentiles for climatological breakpoints predetermined by agency
42 directive are shown below.
- 43 • BLM - 80th and 95th percentiles
 - 44 • FWS - 90th and 97th percentiles
 - 45 • NPS - 90th and 97th percentiles

1 • FS - 90th and 97th percentiles
2 It is equally important to identify the period or range of data analysis used to
3 determine the agency percentiles. The percentile values for 12 months of data
4 will be different from the percentile values for the fire season. Year round data
5 should be used for percentiles for severity type decisions, and percentiles based
6 on fire season data for staffing levels and adjective fire danger.

7
8 Fire business thresholds are values of one or more fire weather/fire danger
9 indexes that have been statistically related to occurrence of fires (fire business).
10 Generally the threshold is a value or range of values where historical fire
11 activity has significantly increased or decreased. Assuming historical climate
12 and occurrence patterns can be applied today, fire business thresholds are
13 expected to more closely predict significant fire occurrence than climatological
14 breakpoints.

15
16 Climatological breakpoints or fire business thresholds are used to compute
17 staffing levels and adjective fire danger ratings.

18 **Staffing Level**

19 The Staffing Level is used to make daily internal fire operations decisions. A
20 unit can operate with anywhere from 3 to 9 levels of staffing. Most units
21 typically use 5 (1,2,3,4,5) or 6 (1,2,3L,3H,4,5) levels. Staffing Level is a direct
22 output of the danger rating processor and is based on one of the following:

- 23 • NFDRS (Burning Index, Energy Release Component, Spread Component,
24 or Ignition Component)
- 25 • Keetch-Byram Drought Index

26 **Additional Considerations:**

- 27 • Palmer Drought Index or other drought index
- 28 • Live Fuel Moisture (calculated or sampled)
- 29 • Canadian Forest Fire Danger Rating System
- 30 • Soil Moisture

31 **Adjective Fire Danger Rating**

32 Adjective Fire Danger Rating (low, moderate, high, very high, extreme) is based
33 on the NFDRS index or component used to compute staffing level and the
34 ignition component. It is a general description of fire danger for the purpose of
35 informing the public. Adjective ratings are computed automatically in the
36 WIMS based on NFDRS parameters provided by local fire managers.

37
38 Climatic breakpoints and fire business thresholds are developed with NFDRS
39 software, such as FIREFAMILY PLUS, and are applied to appropriate NFDRS
40 processors, such as WIMS, to determine daily staffing levels and adjective
41 ratings. Training for the FIREFAMILY PLUS program is available at local,
42 regional, and national NFDRS courses.

1 **Fire Danger Pocket Card for Firefighter Safety**

2 The Fire Danger Pocket Card is used to communicate information on fire danger
3 to firefighters. The prime objective of the fire danger rating is to provide a
4 measure of the seriousness of local burning conditions. The Pocket Card
5 provides a visual reference of those conditions and how they compare to
6 previous fire seasons. Pocket Cards are developed and implemented according
7 to NWCG guidelines posted at [http://fam.nwcg.gov/fam-](http://fam.nwcg.gov/fam-web/pocketcards/default.htm)
8 [web/pocketcards/default.htm](http://fam.nwcg.gov/fam-web/pocketcards/default.htm). Fire Danger Pocket Cards are recommended at
9 each local unit where weather data exists.

- 10 • *BLM/FS - Fire Danger Pocket Cards are developed for and implemented*
11 *at each local unit.*

12

13 **Preparedness Plan**

14 Preparedness plans provide management direction given identified levels of
15 burning conditions, fire activity, and resource commitment, and are required at
16 national, state/regional, and local levels. Preparedness Levels (1-5) are
17 determined by incremental measures of burning conditions, fire activity, and
18 resource commitment. The fire danger rating is a critical measure of burning
19 conditions. Refer to the National Interagency Mobilization Guide for more
20 information on preparedness plans.

21

22 **Preparedness Level/Step-up Plans**

23 Preparedness Level/Step-up Plans are designed to direct incremental
24 preparedness actions in response to increasing fire danger. Those actions are
25 delineated by “staffing levels.” Each Step-Up Plan should address the five
26 preparedness levels (1, 2, 3, 4, and 5) and the corresponding planned actions that
27 are intended to mitigate those fire danger conditions. Several assessment tools
28 are available to measure fire danger.

29

30 Outputs from the fire danger rating operating plan process, such as staffing
31 levels, are used to support the decisions found in staffing plans, step-up staffing
32 plans, preparedness levels, dispatch response plans, dispatch response levels,
33 etc. Increasing fire danger results in increasing staffing levels, suggesting a
34 corresponding increase in preparedness actions intended to mitigate those fire
35 danger conditions.

36

37 The Staffing Plan describes escalating responses that are pre-approved in the fire
38 management plan. Mitigating actions are designed to enhance the unit’s fire
39 management capability during short periods (one burning period, Fourth of July
40 or other pre-identified events) where normal staffing cannot meet initial attack,
41 prevention, or detection needs. The difference between preparedness level/step-
42 up and severity is that preparedness level/step-up actions are established in the
43 unit fire management plan, and implemented by the unit when those pre-
44 identified conditions are experienced. Severity is a longer duration condition
45 that cannot be adequately dealt with under normal staffing, such as a killing frost

- 1 converting live fuel to dead fuel or drought conditions. Severity is discussed
2 later in this chapter.
3
4 Mitigating actions identified in the fire management plan should include, but are
5 not limited to, the following items:
- 6 • Management direction and considerations
 - 7 • Fire prevention actions, including closures/restrictions, media messages,
8 signing, and patrolling
 - 9 • Prepositioning suppression resources
 - 10 • Cooperator discussion and/or involvement
 - 11 • Safety considerations: safety message, safety officer
 - 12 • Augmentation of suppression forces
 - 13 • Support function: consideration given to expanded dispatch activation,
14 initial attack dispatch staffing, and other support needs (procurement,
15 supply, ground support, and communication)
 - 16 • Support staff availability outside of fire organization
 - 17 • Communication of Fire Weather Watch and Red Flag Warning conditions
 - 18 • Fire danger/behavior assessment
 - 19 • Briefings for management and fire suppression personnel
 - 20 • Fire information - internal and external
 - 21 • Multi-agency coordination groups/area command activation
 - 22 • Prescribed fire direction and considerations
 - 23 • Increased detection activities

24 25 **Fire Management Organization Assessment**

26 The Fire Management Organization Assessment is a short checklist that agency
27 administrators may use to identify conditions associated with heavy fire activity
28 that may overload the local fire staff, reducing its effectiveness to manage the
29 situation. Identifying these conditions may help the agency administrator
30 determine whether increasing staffing levels might be an appropriate action to
31 take. See Appendix K.

32 33 **Seasonal Risk Analysis**

34 A Seasonal Risk Analysis (SRA) requires fire managers to review current and
35 predicted weather and fuels information, compare this information with historic
36 weather and fuels records, and predict the upcoming fire season's severity and
37 duration for any given area. It is important to incorporate drought indices into
38 this assessment.

39
40 Information from a SRA can be used to modify the Annual Operating Plan
41 (AOP), step-up and pre-attack plans. It provides the basis for actions such as
42 prepositioning critical resources, requesting additional funding, or modifying
43 Memoranda of Understanding (MOU) to meet anticipated needs.

44

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

- 4 • NFDRS (or CFFDRS) index values (ERC, BI)
- 5 • Temperature levels
- 6 • Precipitation levels
- 7 • Humidity levels
- 8 • Palmer Drought or Standardized Precipitation Index
- 9 • 1000-hour fuel moisture (timber fuels)
- 10 • Vegetation moisture levels
- 11 • Live fuel moisture (brush fuels)
- 12 • Curing rate (grass fuels)
- 13 • Episodic wind events (moisture drying days)
- 14 • Unusual weather events (early severe frost)
- 15 • Fires to date

16
17 The seasonal trend of each selected indicator is graphically compared to normal
18 and all-time worst. This comparison is updated regularly and posted in dispatch
19 and crew areas.

20

21 If the SRA suggests an abnormal fire season might be anticipated, a unit should
22 notify the state/regional office and request additional resources commensurate
23 with the escalated risk. SRA for each geographic area are prepared, issued, and
24 updated each year by GACC Predictive Service staffs. These analyses consider
25 detailed information for each of the Predictive Services Areas (PSA) within the
26 geographic area.

27

28 Seasonal Assessment Workshops are conducted to facilitate these seasonal
29 outlook reports. Local risk analyses should be compiled at the state/regional
30 office to determine the predicted fire season severity within the state/region, and
31 then forwarded to the respective national office for use in determining national
32 fire preparedness needs. Risk analysis is ongoing. It should be reviewed
33 periodically and revised when significant changes in key indicators occur. All
34 reviews of seasonal risk analysis, even if no changes are made, should be
35 documented.

36

37 **Fire Severity Funding**

38 Fire severity funding is the authorized use of suppression operations funds
39 (normally used exclusively for suppression operations, and distinct from
40 preparedness funds) for extraordinary preparedness activities that are required
41 due to:

- 42 • the fire management plan, fire danger rating operating plan, or annual
43 operating plan should identify thresholds that would indicate need for
44 severity resources

- 1 • an abnormal increase in fire potential or danger.
- 2 • fire seasons that either start earlier or last longer than planned in the fire
- 3 management plan.

4
5 The objective of fire severity funding is to mitigate losses by improving
6 suppression response capability.

7
8 When suppression resources that were acquired through the approved fire
9 planning process (e.g. NFMAS, IIAA, FPA) are insufficient to meet the
10 extraordinary need, suppression resources may be requested through the severity
11 funding process. Fire severity funding is not intended to raise preparedness
12 funding levels to cover differences that may exist between funds actually
13 appropriated and those identified in the fire planning process.

14 15 **Typical Uses**

16 Severity funds are typically used to:

- 17 • Increase prevention activities
- 18 • Temporarily increase firefighting staffing
- 19 • Pay for standby
- 20 • Preposition initial attack suppression forces
- 21 • Provide additional aerial reconnaissance
- 22 • Provide for standby aircraft availability

23 24 **Authorization**

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

33 34 **State/Regional Level Severity Funding**

35 Each fiscal year the national office will provide each state/region with \$300,000
36 and a severity cost code for state/regional short-term severity needs (e.g., wind
37 events, cold dry front passage, lightning events, and unexpected events such as
38 off road rallies that are expected to last less than one week). Expenditure of
39 these funds is authorized by the state/regional directors at the written request of
40 the agency administrator. State/regional directors are responsible and
41 accountable for ensuring that these funds are used only to meet severity funding
42 objectives and that amounts are not exceeded. The national office will notify the
43 state/regional director, state/regional budget officer, and the state/regional FMO
44 when the severity cost code is provided.

- 1 • *FWS - Short-term severity or “step-up” cost codes are established yearly*
- 2 *(at the Regional level) as PER1, PER2, etc (numeric value indicates the*
- 3 *specific region utilizing short-term severity funding).*
- 4 • *NPS - Parks have the authority to approve “Step-up” actions only, as*
- 5 *defined in their fire management plan. Regional offices approve severity*
- 6 *(long term - up to 30 days) for parks up to \$100,000 per severity event.*
- 7 • *FS - Severity funding direction is found in FSM 5190.*

8

9 **National Level Severity Funding**

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

- 16 • *NPS - National office approves all requests over \$100,000.*

17

18 **Appropriate Severity Funding Charges**

19

20 **Labor**

21 Appropriate labor charges include:

- 22 • Regular pay for non-fire personnel
- 23 • Regular pay for seasonal/temporary fire personnel outside their normal fire
- 24 funded activation period
- 25 • Overtime pay for all fire and non-fire personnel
- 26 • Severity funded personnel and resources must be available for immediate
- 27 initial attack regardless of the daily task assignment
- 28 • Severity funded personnel and resources will not use a severity cost code
- 29 while assigned to wildfires. The wildfire firecode number will be used.

30

31 **Vehicles and Equipment**

- 32 • GSA lease rate and mileage
- 33 • Hourly rate or mileage for Agency owned vehicles
- 34 • Commercial rentals and contracts
- 35 • *FWS - Repair and maintenance of Fish and Wildlife vehicles and*
- 36 *equipment; FWS does not have a Use Rate covering these charges.*

37

38 **Aviation**

39 This includes:

- 40 • Contract extensions
- 41 • The daily minimum for call when needed (CWN) aircraft
- 42 • Preposition flight time
- 43 • Support expenses necessary for severity funded aircraft (facility rentals,
- 44 utilities, telephones, etc.)

1 Travel and Per Diem

2 Severity funded personnel in travel status are fully subsisted by the government
3 in accordance with their agency regulations. Costs covered include:

- 4 • Lodging
- 5 • Government provided meals (in lieu of per diem)
- 6 • Airfare (including returning to their home base)
- 7 • Privately owned vehicle mileage (with prior approval)
- 8 • Other miscellaneous travel and per diem expenses associated with the
9 assignment

10

11 Prevention Activities

12 These include:

- 13 • Funding Prevention Teams (Preventions teams will be mobilized as referred
14 in the National Mobilization Guide, Chapter 20)
- 15 • Implementing local prevention campaigns, to include community risk
16 assessment, mitigation planning, outreach, and education
- 17 • Augmenting patrols
- 18 • Note: Non-fire funded prevention team members should charge base 8 and
19 overtime to the severity cost code for the length of the prevention activities
20 assignment. Fire funded personnel should charge overtime only to the
21 severity cost code for the length of the prevention activities assignment.

22

23 • Inappropriate Fire Severity Funding Charges

- 24 • To cover differences that may exist between funds actually appropriated
25 (including rescissions) and those identified in the fire planning process
- 26 • Administrative surcharges, indirect costs, fringe benefits
- 27 • Equipment purchases
- 28 • Purchase, maintenance, repair, or upgrade of vehicles
- 29 • Purchase of radios
- 30 • Purchase of telephones
- 31 • Purchase of pumps, saws, and similar suppression equipment
- 32 • Aircraft availability during contract period
- 33 • Cache supplies which are normally available in fire caches
- 34 • Fixed ownership rate vehicle costs

35

36 Emergency Equipment Rental Agreements

37 Emergency Equipment Rental Agreements (EERAs) are used during emergency
38 incidents under authorities that allow for direct, non-competitive ordering using
39 established procedures in the event of immediate threat to life and property.
40 EERAs will not be used for non-emergency activities, including severity
41 activities, rehabilitation projects, and hazardous fuels projects.

42

43

44

1 **Interagency Requests**

2 Agencies working cooperatively in the same geographic area should work
 3 together to generate and submit joint requests, and to utilize severity funded
 4 resources in an interagency manner. However, each agency should request
 5 funds only for its own agency specific needs. The joint request should be routed
 6 simultaneously through each agency’s approval system, and the respective
 7 approving official will issue an authorization that specifies allocations by
 8 agency.

9
 10 **Requesting Fire Severity Funding**

11 Fire severity funding requests should be submitted on the Interagency Severity
 12 Funding Request Form found at the website listed below. The completed and
 13 signed request is submitted from the state/regional director to the appropriate
 14 approving official as per the sequence of action outlined below. Authorizations
 15 will be returned in writing.

16
 17 The interagency standard format for fire severity funding requests may be found
 18 at: http://www.nifc.gov/policies/red_book/2009/ISFRF.doc.

19
 20 The BLM severity request form is at:
 21 <http://www.blm.gov/nifc/st/en/prog/fire/fireops/severity.html>

22
 23 **Sequence of Action and Responsible Parties for Severity Funding Requests**

Action	Responsible Party
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 approve (or reject) 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

Execute severity cost code. Ensure that project expenditures are only used for authorized purposes.	Unit Office
Maintain severity files, including requests, authorizations, and summary of expenditures and activities.	Unit/State/Regional/ National Offices

1

2 **Labor Cost Coding For Severity Funded Personnel**

3 Fire personnel outside their normal activation period, employees whose regular
4 salary is not fire funded, and Administratively Determined (AD) employees
5 hired under an approved severity request should charge regular time and
6 approved non-fire overtime to the severity suppression operations subactivity
7 and the requesting office's severity cost code.

8

9 Fire funded personnel should charge their regular planned salary (base-eight) to
10 their budgeted subactivity using their home unit's location code. Overtime
11 associated with the severity request should be charged to the severity
12 suppression operations subactivity and the requesting office's severity cost code.

13

14 Regular hours worked in suppression operations will require the use of the
15 appropriate fire subactivity with the appropriate firecode number. Overtime in
16 fire suppression operations will be charged to the suppression operations
17 subactivity with the appropriate firecode number.

18

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. A task order for reimbursement will have to be established and is
22 authorized under the Interagency Agreement for Fire Management.

- 23 • **FS** - *Labor Cost Coding. Forest Service severity funding direction in FSM*
24 *5190 provides agency specific direction.*

25

26 **Documentation**

27 The state/regional and national office will document and file accurate records of
28 severity funding activity. This will include complete severity funding requests,
29 written authorizations, and expenditure records.

30

31 **Severity Funding Reviews**

32 State/regional and national offices should ensure appropriate usage of severity
33 funding and expenditures. This may be done as part of their normal agency fire
34 program review cycle. The severity funding audit checklist may be used as a
35 guide for this process. Interagency Preparedness Review checklists can be
36 found at:

37 http://www.nifc.gov/policies/preparedness_reviews/preparedness_reviews.htm

- 38 • **BLM** - *Severity funding is not a reviewed item of the BLM national*
39 *Preparedness Review. BLM Preparedness Review Checklists can be found*
40 *at:*

1 http://www.blm.gov/nifc/st/en/prog/fire/fireops/preparedness/preparedness_
2 [review/checklists.html](http://www.blm.gov/nifc/st/en/prog/fire/fireops/preparedness/preparedness_)

3

4 **Fire Prevention/Mitigation**

5

6 **Wildland Fire Cause Determination & Fire Trespass**

7 Agency policy requires any wildfire to be investigated to determine cause,
8 origin, and responsibility.

9

10 For all human-caused fires where the guilty party has been determined, actions
11 must be taken to recover the cost of suppression activities, land rehabilitation,
12 and damages to the resources and improvements.

13

14 **Wildland Fire Mitigation and Prevention**

15 Fire programs are required to fund and implement unit level Fire Prevention
16 Plans by completing a wildland mitigation/prevention assessment. The purpose
17 of this is to reduce undesirable human caused ignitions, to reduce damages and
18 losses caused by unwanted wildland fires, and to reduce the suppression costs of
19 wildland fires. Wildland fire mitigation/prevention programs based on the Risk
20 Assessment and Mitigation Strategies (RAMS) process can reduce damages and
21 losses during periods of average weather, fuels, and human activity. As weather
22 and fuel conditions move from average to above average or severe, and/or
23 human activity increases, mitigation and prevention activities must be
24 strengthened to maintain effectiveness.

25

26 Prevention includes education (sign posting plans, school programs, radio and
27 news releases, recreation contacts, local business contacts, exhibits), industrial
28 program monitoring (timber, mining, power line maintenance operations),
29 reconnaissance patrols, and other activities to prevent and mitigate wildfire
30 damage, and loss.

- 31 • *NPS - Only units that experience more than an average 26 human caused*
32 *fires per ten-year period are required to develop a fire prevention plan,*
33 *based upon a prevention analysis such as RAMS; however, use of this*
34 *software is not required.*
- 35 • *FS - Forest Service direction for wildland prevention and investigation is*
36 *found in FSM 5110 and 5300.*