Great Plains Zone

Interagency Fire Danger Operating Plan

April 2021

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Great Plains Zone

Interagency Fire Danger Operating Plan

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Great Plains Zone

Interagency Fire Danger Operating Plan

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Great Plains Zone

Interagency Fire Danger Operating Plan

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I. INTRODUCTION

A. PURPOSE

The public, industry, and our own agency personnel expect the interagency wildland fire management agencies to implement appropriate and timely decisions which ultimately result in safe, efficient, and effective wildland fire management actions. This plan is intended to document a decision-making process for agency administrators, fire program managers, fire operations specialists, dispatchers, agency cooperators, and firefighters by establishing interagency planning and response levels using the best available scientific methods and historical weather/fire data.

An appropriate level of preparedness to meet wildland fire management objectives is based upon an assessment of vegetation, climate, and topography utilizing the National Fire Danger Rating System (NFDRS). This plan provides a science-based "tool" for interagency fire managers to incorporate a measure of risk associated with decisions which have the potential to significantly compromise safety and control of wildland fires.

1. Preparedness

Interagency policy and guidance require numerous unit plans and guides to meet preparedness objectives. Some of these plans and guides are inter-related; some plans and guides provide the basis for other plans/guides as shown in Figure 1.

Figure 1: Preparedness Plan Relationship

This Fire Danger Operating Plan (FDOP) guides the application of information from decision support tools (such as NFDRS) at the local level. This FDOP is supplemental to the Fire Management Plan; it documents the establishment and management of a fire weather station network and describes how fire danger ratings will be applied to local unit fire management decisions. The actual implementation of the fire business thresholds is described in the following supplemental action plans.

The decision points are identified and documented in the Great Plains Zone Fire Danger Operating Plan.

a. Preparedness Plan

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

b. Staffing Plan

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

c. Prevention Plan – Fire Danger Components

   Prevention plans document the wildland fire problems identified by a prevention analysis. The analysis examines human-caused fires, but also the risks, hazards, and values for the planning unit. Components of the plan include mitigation (actions initiated to reduce impacts of wildland fire to communities), prevention (of unwanted human-caused fires), education (facilitating and promoting awareness and understanding of wildland fire), enforcement (actions necessary to establish and carry out regulations, restrictions, and closures), and administration of the prevention program. Currently Prevention Plans reside with individual agencies, but will look to be a consolidated plan in the future. Planned actions can be a coordinated effort between agencies depending on fire activity and events occurring within the zone. The process for fire danger determination for all agencies is described in *Appendix C*.

d. Public Fire Restriction Plan

   A Restriction Plan is an interagency document that outlines interagency coordination efforts regarding fire restrictions and closures. An interagency approach for initiating restrictions or closures helps provide consistency

among the land management partners, while defining the restriction boundaries so they are easily distinguishable to the public. Based on the fire danger, managers may impose fire restrictions or emergency closures to public lands. There is not a written Public Fire Restriction Plan for the Great Plains Zone due to large variations of fuels conditions that occur across the zone. Fire restrictions calls are held between all agencies when the fire danger reaches high to very high or counties begin to enact restrictions. This enables consistency and coordination when conditions allow. Refer to *Appendix D* for further information.

2. Wildfire Response

a. Initial Response Plan

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

b. Local Mobilization Plan

The Great Plains Zone Mobilization Guide identifies standard procedures, which guide the operations of multi-agency logistical support activity throughout the coordination system. The Mobilization Guide is intended to facilitate interagency dispatch coordination, ensuring the timeliest and most cost-effective incident support services available are provided. Communication between Units, GACCs, State, Regional Offices and other cooperative agencies are addressed. The Mobilization Guide can be located on the Dispatch Center web site https://gacc.nifc.gov/rmcc/dispatch_centers/r2gpc/.

3. Fuels Management

a. Prescribed Burn Approval Plan (USFS)

- All high complexity prescribed fire plans will be approved by the Forest Supervisor.
- Line officers are delegated authority to approve moderate and low complexity prescribed fire plans based on qualifications.
- All prescribed fire plans must be technically reviewed, signed, and dated by a Prescribed Fire Burn Boss, qualified for the complexity level of the proposed project.

- Technical reviewers from other National Forests or agencies may also review burn plans if they are a qualified Burn Boss for the level of plan being reviewed.
- In addition, prescribed fire plans must be reviewed and signed by a certified Silviculturist.

B. POLICY AND GUIDANCE

Interagency policy and guidance regarding the development of Fire Danger Operating Plans can be found in the Interagency Standards for Fire & Aviation Operations (Red Book). Agency-specific direction can be found in:

- U.S. Forest Service – Manual 5120 - Fire Management - Preparedness
- Bureau of Land Management – Manual 9211 - 1 - Fire Planning Handbook
- National Park Service – Manual 18, Chapter 5 – Preparedness
- Fish and Wildlife Service – Fire Management Handbook, Chapter 10 - Preparedness
- Bureau of Indian Affairs – Wildland Fire and Aviation Program Management Operations Guide

C. OPERATING PLAN OBJECTIVES

1. Provide a tool for agency administrators, fire managers, dispatchers, agency cooperators, and firefighters to correlate fire danger ratings with appropriate fire business decisions in fire danger planning area.

2. Delineate fire danger rating areas (FDRAs) in fire danger planning area with similar climate, vegetation, and topography.

3. Establish an interagency fire weather-monitoring network consisting of Remote Automated Weather Stations (RAWS) which comply with NFDRS Weather Station Standards (PMS 426-3).

4. Determine climatological breakpoints and fire business thresholds using the Weather Information Management System (WIMS), National Fire Danger Rating System (NFDRS), FireFamilyPlus software to analyse and summarize an integrated database of historical fire weather and fire occurrence data.

5. Define roles and responsibilities to make fire preparedness decisions, manage weather information, and brief fire suppression personnel regarding current and potential fire danger.

6. Determine the most effective communication methods for fire managers to communicate potential fire danger to cooperating agencies, industry, and the public.

7. Provide guidance to interagency personnel outlining specific daily actions and considerations at each preparedness level.

8. Identify seasonal risk analysis criteria and establish general fire severity thresholds.

9. Identify the development and distribution of fire danger pocket cards to all personnel involved with fire suppression within the fire danger planning area.

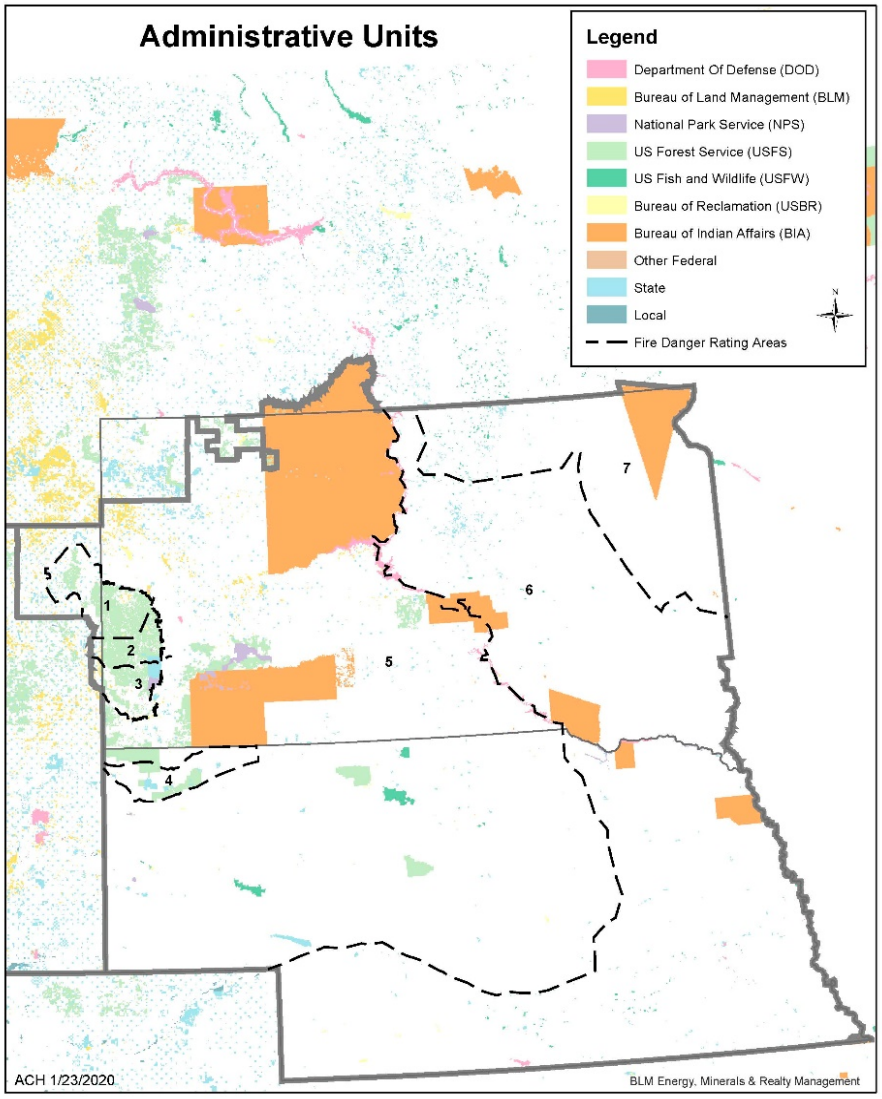
10. Identify program needs and suggest improvements for implementation of the Fire Danger Operating Plan.

II. FIRE DANGER PLANNING AREA INVENTORY AND ANALYSIS

A. ADMINISTRATIVE UNITS

This document serves as an *interagency* example of consistent and effective application of fire danger decisions is applied across multiple jurisdictional boundaries. Wildland fire management and suppression responsibilities are shared among Federal, State, and local cooperators.

1. Overview Map



Map 1: Fire Danger Planning Area Overview

2. Ownership Table

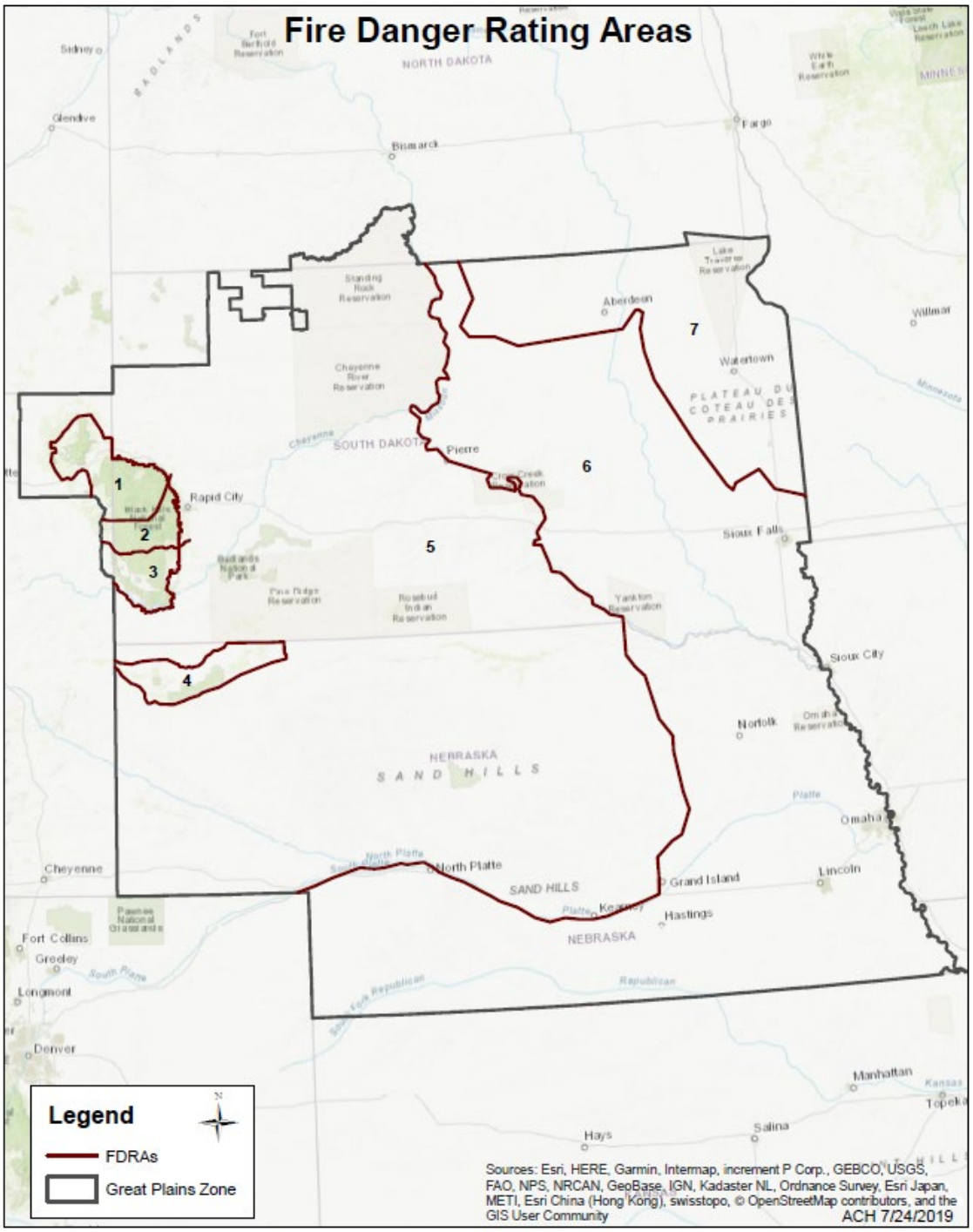
Agency	Acreage
Forest Service	2,646,422
State	751,342
National Park Service	162,084
Bureau of Land Management	476,612
State of Nebraska	360,140
Bureau of Indian Affairs	17,030,639
Fish & Wildlife Service	545,499
Private	932,676
Other	2,608,994

Table 1: Ownership Table

B. FIRE DANGER RATING AREAS

A Fire Danger Rating Area (FDRA) is defined as a large geographic area relatively homogenous with respect to *climate*, *vegetation* and *topography*. Because of these similarities, it can be assumed that the fire danger within a FDRA is relatively uniform. Fire Danger Rating Areas were delineated based upon an analysis of these three factors: climate (Appendix I), vegetation (Appendix H), and topography (Appendix G). A detailed description of each FDRA is located in *Appendix L*. The final FDRA delineation is depicted here:

4. FDRA Map



Map 2: Fire Danger Rating Areas (FDRAs)

5. FDRA Table

Fire Danger Rating Area	Acreage	% of Total
FDRA #1	1,225,993	0.8%
FDRA #2	546,146	0.3%
FDRA #3	686,553	0.4%
FDRA #4	994,778	0.7%
FDRA #5	95,403,487	62%
FDRA #6	37,174,910	24%
FDRA #7	16,929,910	11%

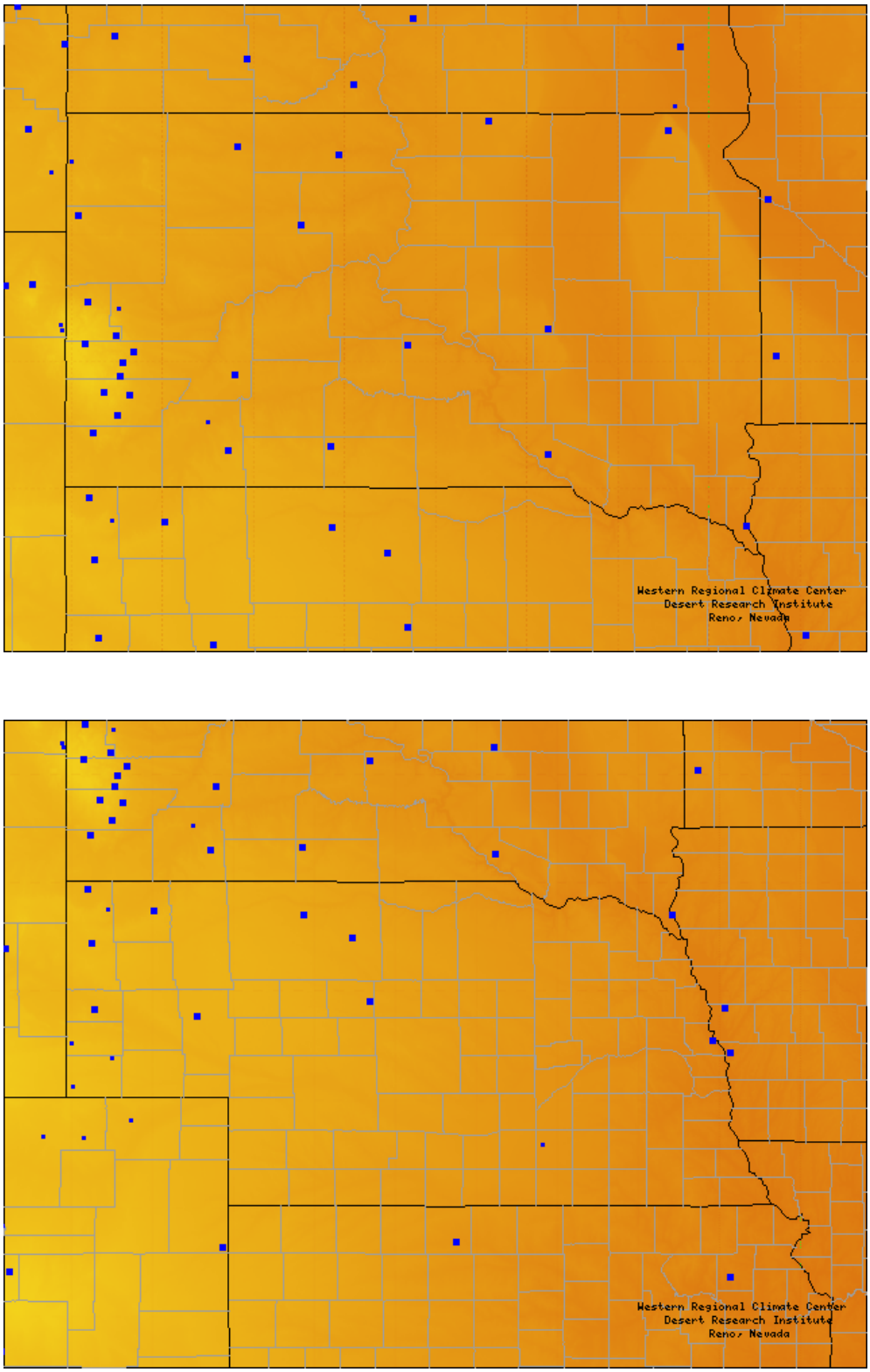
Table 2: Fire Danger Rating Areas (FDRAs)

C. WEATHER STATIONS

All Remote Automated Weather Stations (RAWS) comply with the National Wildfire Coordinating Group (NWCG) weather station standards. http://www.nwcg.gov/pms/pubs/PMS426-3.pdf .

Each RAWS receives, at a minimum, one annual on-site maintenance visit by either the local user or contracted personnel to ensure sensors are within calibration standards and verify site and station conditions.

6. RAWS Maps



Map 3: Remote Automated Weather Station (RAWS)

7. RAWS Catalogue Table (Active Stations Only)

Table 3: RAWS Catalogue

STATION NAME	WIMS ID	NESDIS ID	AGENCY / OWNER	AVAIL DATA YEARS	ELEV	LATITUDE	LONGITUDE	REPORTING TIME
Nemo	392506	3230668C	BKF/USFS	1993-2021	4644	44.190000	-103.51060	12
Devils Tower	480606	FA64F588	DTP/NPS	1999-2021	3900	44.581700	-104.71940	13
Bearlodge	480605	32362548	BKF/USFS	1985-2021	5280	44.597200	-104.42810	12
Custer	393506	326760FA	BKF/USFS	2000-2021	5821	43.778390	-103.64058	13
Baker Park	392606	32828142	BKF/USFS	2001-2021	4674	43.979200	-103.42500	13
Rapid City West	392608	32D5515C	SDS/STATE	2014-2021	3793	44.0693056	-103.311667	13
Whitetail	392607	AAC100AA	BKF/USFS	2005-2021	6848	44.1260500	-103.843900	13
Custer State Park	393507	32D35192	SDS/STATE	2008-2021	3950	43.728600	-103.354200	12
Red Canyon	395105	323075FA	BKF/USFS	1993-2021	4644	43.425800	-103.758900	12
WICA_Elk Mountain	393505	FA6600F8	WCP/NPS	1996-2021	4111	43.557500	-103.491400	13
Mount Rushmore	392603	FA66138E	MRP/NPS	2000-2021	5400	43.8778170	-103.449597	13
KINCAN	250203	32382120	NBF/USFS	1989-2021	4080	42.7236000	-102.971700	13
Indian Butte	390901	3276D610	MBLM/BLM	2005-2021	3380	45.1393056	-103.912639	12
Grand River	390301	AAC207A4	NDSRA/BIA	2010-2021	2176	45.6142690	-101.062872	13
Tatanka Prairie	328501	3280E150	NDSRA/BIA	2008-2021	2316	46.1602530	-100.901333	13
Bear Creek	391201	52109588	Cheyriver/BIA	1993-2021	2290	45.0569580	-101.467711	12
Fort Pierre	393801	3231B21E	USFS/NBF	2003-2021	2274	44.1153000	-100.301400	12
Pinnacles	392602	FA64C012	BDP/NPS	1998-2021	3080	43.8806000	-102.237800	13
Magpie Creek	395601	521167F6	BIA/Rosebud	1987-2021	2840	43.3183420	-101.145325	13
Agate	250105	FA6643F2	AFP/NPS	1997-2021	4400	42.4250000	-103.735800	13
Valentine	250402	8375A71A	FWS/Valentine	2002-2021	2927	42.4839000	-100.523100	13
Bessey	252402	32674616	USFS/NBF	1987-2021	2873	41.8972000	-100.310600	12
Scotts Bluff	251905	FA40F15C	SBP/NPS	2001-2021	4224	41.8294000	-103.708100	12
Porcupine	395202	52111166	BIA/Pineridge	1992-2021	3786	43.2894890	-102.271039	12
Huron	393101	83787214	FWS/Hurwmd	2003-2021	1876	44.2411000	-98.7700000	12

STATION NAME	WIMS ID	NESDIS ID	AGENCY / OWNER	AVAIL DATA YEARS	ELEV	LATITUDE	LONGITUDE	REPORTING TIME
Lake Andes	395901	83788290	FWS/Lk Andes	2003-2021	1710	43.2586000	-98.7592000	12
Loess Hills TNC Broken	132207	FD101282	State/TNC Broke	2004-2021	1170	42.6972860	-96.5758330	13
Desoto	135501	83762600	FWS	2002-2021	1000	41.5333000	-96.0833000	13
Sand Lake	390501	83794574	FWS/SD-SLR	2004-2021	2030	45.8778000	-99.4108000	13
Red Station	216901	CA52737C	NPS/PIPE	2005-2021	1660	44.0103030	-96.3212000	13
Marshall Co.	390701	8376A014	FWS/Waubaynv	2008-2021	2010	45.8039000	-97.4508000	12
Big Stone NWR	213501	8378F400	Other Fed/Big Stone	2004-2021	878	45.2611000	-96.3417000	12
Spearfish	392507	3281953A	State	2019-2021	3898	44.4582333	-103.818733	13
Montrose	250103	AA10C4B4	NBF/USFS	2017-2021	3734	42.923056	-103.793056	13

8. Special Interest Groups (SIGs)

Special Interest Group (SIG):	**FDRA #1**	
Station / WIMS Number	***Station Name***	***Weight***
392506	Nemo	1.00
480606	Devils Tower	1.00
480605	Bearlodge	1.00

Table 4: FDRA #1 SIG

Special Interest Group (SIG):	**FDRA #2**	
Station / WIMS Number	***Station Name***	***Weight***
393506	Custer	1.00
392606	Baker Park	1.00
392608	Rapid City West	1.00
392607	Whitetail	1.00

Table 5: FDRA #2 SIG

Special Interest Group (SIG):	**FDRA #3**	
Station / WIMS Number	***Station Name***	***Weight***
395105	Red Canyon	1.00
393505	WICA Elk Mountain	1.00
393507	Custer State Park	1.00
393506	Custer	1.00
392603	Mt. Rushmore	1.00

Table 6: FDRA #3 SIG

Special Interest Group (SIG):	FDRA #4	
Station / WIMS Number	***Station Name***	***Weight***
250203	Kings Canyon	1.00

Table 7: FDRA #4 SIG

Special Interest Group (SIG):	FDRA #5	
Station / WIMS Number	***Station Name***	***Weight***
390901	Indian Butte	1.00
390301	Grand River	1.00
328501	Tatanka Prairie	1.00
391201	Bear Creek	1.00
393801	Fort Pierre	1.00
392602	Pinnacles	1.00
395601	Magpie Creek	1.00
250105	Agate	1.00
250402	Valentine	1.00
252402	Bessey	1.00
251905	Scotts Bluff	1.00
395202	Porcupine	1.00

Table 8: FDRA #5 SIG

Special Interest Group (SIG):	FDRA #6	
Station / WIMS Number	***Station Name***	***Weight***
393101	Huron	1.00
395901	Lake Andes	1.00
132207	Loess Hills TNC Broken	1.00
135501	Desoto	1.00
390501	Sand Lake	1.00
216901	Red Station	1.00

Table 9: FDRA #6 SIG

Special Interest Group (SIG):	**FDRA #7**	
Station / WIMS Number	***Station Name***	***Weight***
390501	Sand Lake	1.00
390701	Marshall Co	1.00
213501	Big Stone NWR	1.00
216901	Red Station	1.00

Table 10: FDRA #7 SIG

III. FIRE DANGER WORKLOAD ANALYSIS

To apply fire danger rating as a viable decision support tool, fire managers must be able to associate fire suppression workload with a specific target groups. An understanding of the specific target group from which the suppression workload originates will help determine the appropriate communication methods and deterrence measures which may effectively change the behaviour of the respective target group.

A. IDENTIFICATION / FRAMING OF THE FIRE OCCURRENCE WORKLOAD

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

1. **Affected Target Group**: The group of people commonly associated with the problem (Agency, Industry, or Public).
    a. **Agency**: Employees of the federal, state, and local governments involved in the cooperative effort to suppress wildland fires. This includes Federal, State, and County land management employees, along with volunteer fire departments who share a similar protection mission to manage wildland fires.
    b. **Industry**: Employees affiliated with organizations which utilize natural resources and/or obtain permits or leases to conduct commercial activities on federal, state, or private lands. These entities or activities could include ranchers, wilderness camps, railroads, mines, timber harvesting, filming, building construction, oil and gas, electric generation, guiding services, etc.
    c. **Public**: Individuals who use public lands for non-commercial purposes such as off-highway vehicle (OHV) use, camping, hiking, hunting, fishing, skiing, firewood gathering, agriculture, mountain biking, general travel and recreation. This group also includes those living within the wildland/urban interface (WUI).
2. **Workload Description**: This is the fire unit's suppression workload. Human-caused fires are usually described in terms of an ignition cause related to public and industrial target groups. Natural-caused (or lightning) fire workload is usually described as the Agency's workload. For example, lightning is not "the problem"; rather, the problem is the local unit's ability to respond to multiple ignitions, exceeding the staffing capabilities.

B. FIRE WORKLOAD ANALYSIS TABLE

The ability to regulate, educate, or control a user group will be based upon the interface method and how quickly they can react to the action taken. In addition, each action will result in positive and/or negative impacts to the user groups. Consequently, the decision tool which would be most appropriate would depend upon the sensitivity of the target group to the implementation of the action, and ultimately change their behaviour. Table 11 illustrates the differences between target groups (Agency, Industry, and Public) and the associated fire cause.

Table 11: Planning Area Fire Workload Analysis

TARGET GROUP		IGNITION CAUSE		RELATIVE DEGREE OF CONTROL	COMMUNICATION METHODS	WORKLOAD DESCRIPTION
GENERAL	*SPECIFIC*	*GENERAL*	*SPECIFIC*			
Public	Overnight campers & day-use picnickers. Private campfire rings.	4 - Campfire	Unattended (and escaped) Campfires around developed an dispersed recreation sites. Campfire rings at private residences.	Moderate	Communicated by Dispatch Center daily to agency personnel for newspaper, "Smokey's Arm" sign. In the Black Hills Forest Fire Protection District a permit is required for all open fires.	The unit is experiencing a significant number of escaped campfires in dispersed camping areas. The campfires are abandoned by single-day or overnight campers when fuels are critically dry and high wind events and not extinguished properly.
Agency	Agency Administrators, Fire Management Officers, Duty Officers	1 - Lightning	Natural ignitions which may be suppressed or managed for resource benefit.	Very High	INITIAL ATTACK: If a fire plots within designated areas, Dispatch will notify Agency DO and dispatch closest resources	Agency policy will dictate management actions. Fire management with a confine/contain strategy may require suppression resources for an extended time.

TARGET GROUP		IGNITION CAUSE		RELATIVE DEGREE OF CONTROL	COMMUNICATION METHODS	WORKLOAD DESCRIPTION
GENERAL	*SPECIFIC*	*GENERAL*	*SPECIFIC*			
					based on response level. Appropriate management response will be determined by agency policy.	
Public	Private landowners.	5 - Debris Burning	Escaped brush piles.	Moderate	Permits are required prior to ignition of piles. Press releases and social media posts are utilized raise awareness of potential for escapes.	The unit is experiencing a significant number of escaped fires from debris burning. Open burning is allowed from Nov 1st to Mar 31st in the fire protection district.
Public	Equipment and vehicle operators.	2 - Equipment	Vehicle exhaust systems igniting tall grass.	Moderate	A travel management plan is in place and maps are available to the public.	The unit is experiencing a significant number of wildfires due to off road vehicle use.

TARGET GROUP		IGNITION CAUSE		RELATIVE DEGREE OF CONTROL	COMMUNICATION METHODS	WORKLOAD DESCRIPTION
GENERAL	***SPECIFIC***	***GENERAL***	***SPECIFIC***			
Public	Recreational shooting.	9-Miscellaneous	Exploding targets and recreational target shooting.	Low	SDCL and agency policy. Web based and periodic press releases.	The unit is experiencig a significant number of wildfires due to recreational shooting.
Industry	Equipment Operation	2-Equipment	Logging, construction, railroads, oil & gas, wind energy, electrical utilities, ranching operations.	Moderate	Contract and permit requirements related to fire prevention on federal lands are utilized. Additional fire restrictions may apply during times of elevated fire danger.	The unit is experiencing a significant number of wildfires due to a variety of industrial related activities.

IV. FIRE DANGER DECISION ANALYSIS

Decision points can be based upon either:

- Climatological Breakpoints, or
- Fire Business Thresholds.

The following table provides a summary of the planning area's fire danger problems and concerns. In addition, each problem is associated with a specific target group whose activities can be influenced through effective communication and implementation of specific control measures.

This Fire Danger Operating Plan will be used to support preparedness, staffing and response decisions which are made at specific decision points. A "decision point" is a point along the range of possible output values where a decision shifts from one choice to another. When the combination of events and conditions signal that it is time to do something different, a "decision point" has been identified for each Fire Danger Rating Level within each Fire Danger Rating Area.

A. CLIMATOLOGICAL ANALYSIS

Climatological breakpoints are points on the cumulative distribution curve of one fire weather/danger index computed from climatology (weather) without regard for associated fire occurrence/business. For example, the value at the 90th percentile ERC is the climatological breakpoint at which only 10 percent of the ERC values are greater in value.

It is equally important to identify the period or range of data analysis used to determine the agency percentiles. The percentile values for the calendar year (Jan - Dec) will be different from the percentile values for the fire season (May - Oct). Each agency will have specific (and perhaps different) direction for use of climatological percentiles.

The decision thresholds identified in this Fire Danger Operating Plan are based upon the statistical correlation of historical fire occurrence and weather data and, therefore, do not utilize climatological (percentiles) for decision points.

B. FIRE BUSINESS ANALYSIS

To apply a fire danger system which will assist managers with fire management decisions, ignition problems should be identified, quantified, framed, and associated with a target group to determine the most appropriate fire danger-based decision "tool" to mitigate any given issue.

C. DECISION SUMMARY TABLE

Target Group	Fire Danger Rating Area(s)	Statistical Cause	Climatological Breakpoints or Fire Business Thresholds	Index / Comp	NFDRS2016 Fuel Model	Management Tool	Number of Decision Points	Preparedness Plan(s) to Modify Target Group Behaviour
Public	FDRA 1, 2, 3, 4	4 - Campfire	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Prevention Plan
Public	FDRA 5, 6, 7	4 - Campfire	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Prevention Plan
Agency	FDRA 1, 2, 3, 4	1 - Lightning	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Response Plan
Agency	FDRA 5, 6, 7	1 - Lightning	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Response Plan
Public	FDRA 1, 2, 3, 4	5 - Debris Burning	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Other
Public	FDRA 5, 6, 7	5- Debris Burning	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Follow applicable State & local regulations
Public	FDRA 1, 2, 3, 4	2- Equipment	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Other
Public	FDRA 5, 6, 7	2- Equipment	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Other

Target Group	Fire Danger Rating Area(s)	Statistical Cause	Climatological Breakpoints or Fire Business Thresholds	Index / Comp	NFDRS2016 Fuel Model	Management Tool	Number of Decision Points	Preparedness Plan(s) to Modify Target Group Behaviour
Public	FDRA 1, 2, 3, 4	9-Miscellaneous	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Other
Public	FDRA 5, 6, 7	9-Miscellaneous	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Other
Industry	FDRA 1, 2, 3, 4	2-Equipment	Fire Business Thresholds	ERC/ BI	Y	Adjective Fire Danger Rating Level	5	Other
Industry	FDRA 5, 6, 7	2-Equipment	Fire Business Thresholds	BI	V	Adjective Fire Danger Rating Level	5	Other
Agency BLM only	FDRA 5, 1, 2, 3	All	Climatological only	ERC	Y	Seasonal Trend Analysis	n/a	Web based link available to all firefighters

Table 12: Decision Summary Table

V. FIRE DANGER RATING LEVELS

The NFDRS utilizes the WIMS processor to manipulate weather data and forecasted data stored in the National Interagency Fire Management Integrated Database (NIFMID) to produce fire danger ratings for corresponding weather stations. NFDRS outputs from the WIMS processor can be used to determine various levels of fire danger rating to address the fire problems identified previously in the Fire Problem Analysis Chart. The system is designed to model worst-case fire danger scenario. NFDRS (along with other decision support tools) will be utilized to produce levels (thresholds) of fire business to address local fire problems by targeting public, industrial, or agency groups.

A. RESPONSE (OR DISPATCH) LEVEL

Response (or Dispatch) Levels are pre-planned actions which identify the number and type of resources (engines, crews, aircraft, etc.) initially dispatched to a reported wildland fire based upon fire danger criteria.

B. STAFFING LEVEL

Staffing Levels will be used to make daily internal fire preparedness and operational decisions. At the protection unit level, the staffing level can form a basis for decisions regarding the "degree of readiness" for initial attack resources and support resources. Specific preparedness actions are defined at each staffing level. Although Staffing Level can be a direct output in WIMS, the WIMS output is only based upon weather observations and climatological percentiles. The use of climatological percentiles for daily staffing decisions is optional. The preferred method to delineate Staffing Level thresholds is based on statistical correlation of weather AND fire occurrence.

C. PREPAREDNESS LEVEL

The Preparedness Level is a five-tier (1-5) fire danger rating decision tool that is based on NFDRS output(s) and other indicators of fire business (such as projected levels of resource commitment). Preparedness Levels will assist fire managers with more long-term (seasonal) decisions with respect to fire danger.

D. FIRE DANGER ADJECTIVE RATING LEVEL

In 1974, the Forest Service, Bureau of Land Management and State Forestry organizations established five standard Adjective Fire Danger Rating Levels descriptions for public information and signing.

The Adjective Fire Danger Rating Level for the GPC zone is obtained as a direct output from WIMS; strictly based on weather and climatological percentiles (90th / 97th) with no regard to historical fire occurrence.

VI. FIRE DANGER OPERATING PROCEDURES

A. ROLES AND RESPONSIBILITIES

1. Agency Administrators

    - Responsible for all aspects of fire management.
    - Ensure Dispatch Centers are prepared with mobilization and initial response plans to detect and respond to wildfires with effective coordination and mobilization of wildland fire management assets.
    - Ensure that adequate plans, hardware, software, qualified personnel, and facilities are available to coordinate, support, and process the timely and accurate assessment of weather conditions (RAWS network and WIMS), NFDRS), and risk (Wildland Fire Decision Support System (WFDSS)).
    - Implement applicable actions identified in initial response systems and plans.
    - Signatory on the FDOP.

2. Fire Program Managers

    - Responsible for overall program management.
    - Assists in FDOP development.

3. Fire Danger Technical Group

    - Develop, review annually, and update the plan as necessary to ensure it meets preparedness needs of the local units.

4. Fire Weather Station Owners/Managers

    - Ensures that maintenance is performed per standards and that this maintenance and all other significant station activity is documented in Wildland Fire Management Information (WFMI).
    - Visually confirm outputs from the station to check that the information reflects actual conditions, and notify appropriate organizations if data quality is suspect.
    - Ensures the stations are physically secure and that the site is maintained as needed.

5. Dispatch/Communication Center

    - Responsible for maintaining weather station catalogs for the IA area RAWS within the Weather Information Management System (WIMS) throughout the year.
    - Generates and communicates daily NFDRS outputs to the field.
    - Responsible for implementing the plan.
    - The center manager should immediately relay any noticed problems related to any RAWS stations to the appropriate RAWS coordinator.

- The Center Manager for the Great Plains Interagency Dispatch Center is responsible for ensuring that there are adequate and properly trained personnel assigned to the center that have WIMS edit access.
- The Center Manager ensures any changes to station catalog information is relayed to the agency representative to ensure correct station information is being utilized in Fire Family Plus applications.
- Will contact local SD and WY BLM offices for seasonal trend analysis products as needed.

6. Duty Officers
    - Implement the plan.
    - Document variation that occurs.

7. GIS Specialists
    - Assist with mapping needs as requested.

8. National Weather Service
    - Maintain and update Fire Weather Zones as needed.
    - Create fire weather forecasts for zones.

9. Education / Mitigation / Prevention Specialists
    - Assist in development or analysis of statistics as requested.

10. Fire Planners
    - Coordinate with agency leads to draft/update FDOP annually.
    - Participate as part of Fire Danger Technical Group.

B. SEASONAL SCHEDULE

With the change to NFDRS16 green-up, curing, and freeze dates are no longer manually entered. Growing season index, now included in the model, predicts green-up and dormancy from surface weather data. Snow flags are entered into WIMS by Great Plains Dispatch with the input of the FMOs and field personnel.

C. DAILY SCHEDULE

Daily Timeline

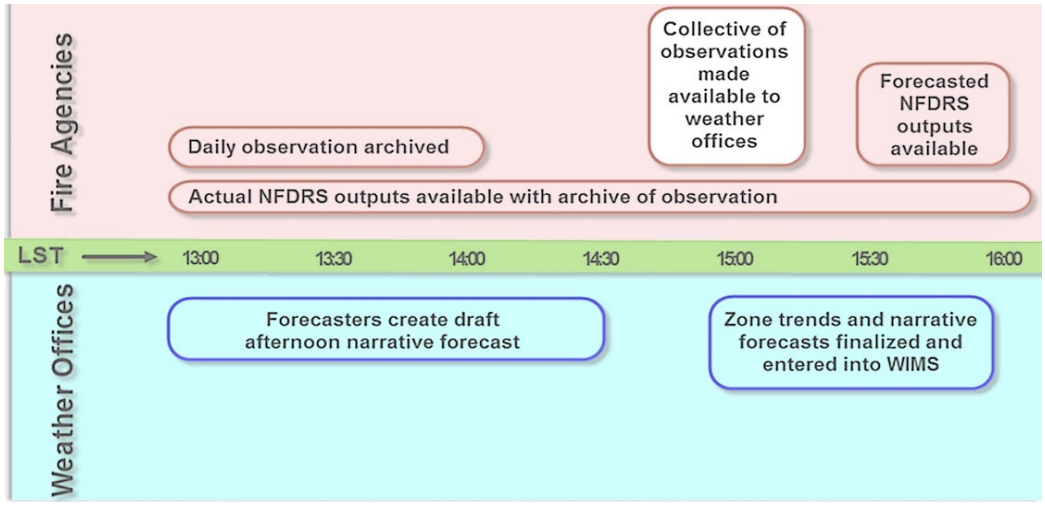


Figure 2: Daily Fire Weather Operations Schedule

After 1345 daily observations are edited in WIMS and forecasted observations are produced to be utilized the next day.

D. WEATHER STATION MONITORING AND MAINTENANCE

Each agency is responsible for the annual maintenance and calibration of their RAWS. The Remote Sensing Laboratory located at the National Interagency Fire Center (NIFC) maintains and calibrates the BLM RAWS annually.

RAWS stations are maintained in accordance with Interagency Wildland Fire Weather Station Standards & Guidelines (PMS 426-3, NWCG March 2019).

RAWS coordinators:

- Jason Virtue-Black Hills National Forest
- Mark Red Fox-Nebraska National Forest
- Al Stover-Northern Great Plains Fire Management, National Park Service
- Mark Browning-Bureau of Indian Affairs
- Richard Sterry-U.S. Fish and Wildlife Service, Mountain Prairie Region
- Jay Wickham-SD Wildland Fire

Certified RAWS technicians include:

- Todd Hoover, Black Hills National Forest
- Jason Virtue-Black Hills National Forest
- Corey Lewis-Black Hills National Forest
- Josh Hoffman-Black Hills National Forest
- Ben Jech-Nebraska National Forest (Pine Ridge RD)
- Nate Hanson-Nebraska National Forest (Bessey RD)

- Jay Wickham-SD Wildland Fire
- Al Stover-National Park Service

The Bureau of Indian Affairs, National Interagency Fire Center has two maintenance contracts to maintain the BIA owned RAWS stations. The first being BLM NIFC and the second being Forest Technology Systems LTD.

VII. FIRE DANGER PROGRAM NEEDS

A. WEATHER STATIONS

- For specific project needs there are portable RAWS available for use. Contact Jason Virtue (BKF) or Jay Wickham (SD Wildland Fire) regarding availability.

B. COMPUTER / EQUIPMENT

- None needed

C. TRAINING

- Additional RAWS technicians should be trained to provide for adequate certified personnel. There should be at least two certified technicians per Fire Weather Zone.

APPENDICES

APPENDIX A-PREPAREDNESS PLAN

Representatives from each fire management organization are responsible for establishing appropriate actions for each preparedness level. Actions include fuels, fire prevention/education, suppression, information and others.

Purpose

Preparedness plans provide management direction given identified levels of burning conditions, fire activity, and resource commitment, and are required at national, state/regional, and local levels. Preparedness Levels (1-5) are determined by incremental measures of burning conditions, fire activity, and resource commitment. Fire danger rating is a critical measure of burning conditions.

Preparedness versus Staffing Levels

Preparedness Levels

Preparedness Levels often get confused with Staffing Levels. Staffing Levels only consider fire danger, while Preparedness Levels incorporate additional items, such as current level of local fire occurrence, live fuel moisture, and suppression resources committed. Additionally, Preparedness Levels incorporate stable variables (e.g. ERC, Live Fuel Moisture, 100-hr Fuel Moisture, etc.) to help with long-term decisions, such as the need to request severity funding or activation of public-use restrictions.

Policy and Guidance

Policy and guidance regarding the development of Preparedness Level plans can be found in chapter 10 of the Interagency Standards for Fire & Aviation Operations (Red Book).

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

Supplemental preparedness actions to consider include, but are not limited to, the following items:

- Management briefings, direction, and considerations;
- Support function: consideration given to expanded dispatch activation and other support needs (procurement, supply, ground support, and communication);

- Support staff availability outside of fire organization;
- Fire danger/behavior assessment;
- Fire information – internal and external;
- Multi-agency coordination group/Area command activation; and
- Prescribed fire direction and considerations.

Refer to the National Interagency Mobilization Guide and GACC Mobilization Guides for more information on Preparedness Level Plans.

Preparedness Levels are established to assist fire managers with weekly or monthly planning decisions based upon seasonal fire danger elements. FireFamilyPlus is used to establish fire business thresholds. A statistical analysis of fire occurrence and historical weather was completed for each FDRA. The final Preparedness Level determination may incorporate a measure of current and projected levels of resource commitment due to fire activity and a measure of ignition risk. Each agency will consider management actions identified in the FDOP appendix based upon the five local Preparedness Levels.

The following tables identify the Great Plains Dispatch Zone specific action guide:

GPC preparedness levels with management actions and considerations Each action specified under a level is in addition to all actions taken in preceding levels.			
Level	**Description**	**Management Actions / Considerations**	**Responsibility**
I	No large fire activity on wildland fire agencies jurisdictional lands. Most districts or units have low to moderate adjective class ratings. Little or no commitment of resources locally or nationally. Preseason preparedness duties being accomplished. Other characteristics of this preparedness level may include the following: **ERC/BI** -Refer to ERC and BI breakpoints listed by FDRA in the following table	A. Review and update all operating plans and cooperative agreements. B. Update fire management plans C. Identify and train personnel to meet possible expanded dispatch organization needs D. Prepare preseason BPA's, Equipment Rental Agreements	GPC Board of Directors reps or agency designees and district or unit FMOs GPC Board of Directors reps or agency designees and district or unit FMOs GPC Board of Directors reps or agency designees, district or unit FMOs and Lead Interagency Dispatcher Contract/Procurement Unit Leaders in conjunction with units and/or FMOs

	1000 hr. fuels - greater than 20% **Resources committed** - 10% or less **KBDI** - 0 to 300 **US Drought Monitor –** normal, some pockets of abnormally dry area exist. Conditions are normal with some short-term dryness, slowing plant growth, some lingering water deficits	E. Weather stations activated before fire season starts so they can adjust properly F. Red cards completed and work capacity tests administered G. Incident Support Organization updated. Identify and train personnel to meet organization H. Preparedness review meetings with other agencies as needed I. Forest communication, State digital system and other unit radio systems operational J. Analyze Fire Severity, resources committed and validate preparedness levels. K. Prescribed fire operations monitored L. During fire season, daily Situation Report is prepared and sent to RMACC by Lead Interagency Dispatcher. (Includes preparedness levels, prescribed burning operations and available resources)	Lead Interagency Dispatcher and /or district or unit FMOs, or agency designees GPC Board of Directors reps or agency designees, district or unit FMOs, Lead Interagency Dispatcher GPC Board of Director reps, or agency designees and Lead Interagency Dispatcher GPC Board of Directors reps or agency designees and district or unit FMOs District or unit FMOs, NZ IRM tech, State radio communications reps and or other technical specialist GPC Board of Director reps, or agency designees, and district or unit FMOs, Lead Interagency Dispatcher and Cooperators GPC Board of Directors reps or agency designees, and Lead Interagency Dispatcher All Districts or Units

Level	Description	Management Actions / Considerations	Responsibility
II	Class A and B fires occurring on jurisdictional lands and /or adjacent lands and a potential for escapes to larger (project) fires. One or more districts or units experiencing moderate to high adjective rating class. Resources within the GPC Zone and local cooperators are handling the situation. A potential exists for requesting additional resources from RMACC. Other Characteristics of this preparedness level may include the following: **ERC/BI** - Refer to ERC and BI breakpoints listed by FDRA in the following table **1000 hr. fuels** - 16% to 20% **Resources committed** - 11% to 25% **KBDI** - 301 to 399 **US Drought Monitor –**Abnormally dry and moderate drought building into some areas. Some damage to crops and rangelands, streams reservoirs or well low, some water shortages developing	A. Analyze fire severity, fire resources ready and in place during fire season B. Alert the Joint Information Center for news release to media concerning prevention and/or suppression C. Check with districts or units for needed actions for prevention, detection, pre-suppression and suppression D. Prescribed burning operations reviewed at the start of each day before there are any new ignitions. E. Detection flights as needed	GPC Board of Directors reps or agency designees, and Lead Interagency Dispatcher GPC Board of Directors reps or agency designees, GPC Board of Directors reps and/or agency designees, Prescribed Fire Managers and GPC Board of Directors reps or agency designees. GPC Board of Directors reps, or agency designees and district or unit FMOs

Level	Description	Management Actions / Considerations	Responsibility
III	Two or more incidents (Class B, C or larger) on jurisdictional lands or adjacent lands requiring a major commitment of resources or major special event with significant increase in human caused risk and resultant drain on resources. Likelihood of additional resources being requested and mobilized through RMACC. The weighted adjective rating class across the Zone is high to very high. One or more districts/units or a majority of the local reinforcement resources are committed to regional and national responses. Other characteristics of this preparedness level may include the following: **ERC/BI**- Refer to ERC and BI breakpoints listed by FDRA in the following table **1000 hr. fuels** - 13% to 16% **Resources committed** - 50% to 75% **KBDI** - 400 to 449 **US Drought Monitor –**Severe and moderate drought dominates much of the area. Crop and rangeland losses likely water shortages common water restrictions imposed.	A. Possible activation of ISO and expanded dispatch B. All prescribed burning operations suspended C. Evaluate the need for fire restrictions in Black Hills Fire Protection area and/or restrictions on other jurisdictional lands D. Consider requesting other resources for pre-positioning E. Detection flights routine / daily F. Review Fire Severity Plan for implementation G. Interagency Incident Management Team organized with key positions assigned and accepted for initial management of escaped fires H. Implement Runcards for automatic initial attack dispatch procedures to adjacent	GPC Board of Directors reps, or agency designees, district or unit FMOs, and Lead Interagency Dispatcher GPC Board of Director reps or agency designees, Prescribed Fire Managers, district or unit FMO, Burn Boss GPC Board of Directors reps, or agency designees, district or unit FMOs, Line Officers, and local Cooperators GPC Board of Directors reps, or agency designees and district or unit FMOs GPC Board of Directors reps, or agency designees, and district or unit FMOs GPC Board of Directors reps, or agency designees GPC Board of Directors reps, or

		units at ERC > 65 or >fire weather watch= or >red flag warning= in effect	agency designees. Incident Commander and cooperators GPC Board of Directors reps, or agency designees, and district or unit FMOs

Level	Description	Management Actions / Considerations	Responsibility
IV	One or more district or units experiencing fire incidents requiring Type I or II teams or special event high human caused risk activities requiring management by the Interagency Initial Management Group or Type I or II teams. Potential for numerous incidents exist and/or numerous other incidents being reported or are in progress, depleting local resources. On-going mobilization of resources through RMACC. Adjective rating class is high to extreme on jurisdictional lands. Most of the local reinforcement resources are committed to local, regional, and national responses. No relief in fire severity or fire weather conditions predicted near term. Other characteristics of this preparedness level may include the following: **ERC/BI** - Refer to ERC and BI breakpoints listed by FDRA in the following table **1000 hr. fuels** - 8% to 12%	A. ISO and/or Expanded Dispatch activated B. ALL PRESCRIBED BURNING OPERATIONS must be actively moved to "OUT" status declarations C. Implement fire restrictions or closures if not done previously D. Activate local multi-agency conference calls	Lead Interagency Dispatcher and GPC Board of Directors reps, or agency designees. GPC Board of Directors reps, or agency designees, and district or unit FMOs Agency Administrators LE Officers, Special Agents and Local County Sheriff(s) Lead Interagency Dispatcher and GPC Board of Director reps

	Resources committed - greater than 75% **KBDI** - 450 to 499 **US Drought Monitor –** Extreme drought exists across a large areas. Widespread crop and rangeland losses continue to occur. Widespread water shortages or restrictions are in place.		

Level	Description	Management Actions / Considerations	Responsibility
V	Interagency and cooperator resources are committed to multiple incidents and/or major incidents and initial attack on jurisdictional lands or committed to regional / national suppression efforts. Resource orders placed with RMACC are outstanding. Adjective rating class is very high to extreme. Other characteristics of this preparedness level may include the following: **ERC/BI** - Refer to ERC and BI breakpoints listed by FDRA in the following table **1000 hr. fuels** - less than 8%	A. All available resources assigned to incidents or ready and in contact for immediate initial attack response B. Active enforcement of fire orders in effect	GPC Board of Directors reps, or agency designees and district or unit FMOs Agency Administrators, district or unit managers, LE Officers, and Special Agents

	Resources committed - most assigned to incidents, initial attack capability severely limited **KBDI** - greater than 500 **US Drought Monitor –** Extreme to Exceptional drought exists across large areas. Exceptional and Widespread crop and rangeland losses continue to occur. Shortages of water creating a water emergency.		

PL	FDRA 1 (ERC)	FDRA 2 (ERC)	FDRA 3 (ERC)	FDRA 4 (BI)	FDRA 5 (BI)	FDRA 6 (BI)	FDRA 7 (BI)
1	0-14	0-19	0-20	0-16	0-10	0-9	0-8
2	15-23	21-27	21-29	17-22	11-17	10-15	9-15
3	24-31	28-35	30-39	23-28	18-25	16-21	16-20
4	32-40	63-43	40-49	29-34	26-34	22-26	21-25
5	40+	44+	50+	35+	35+	27+	25+

APPENDIX B-STAFFING PLAN

Purpose

This Staffing Plan is intended to provide day-to-day guidance for decisions regarding the "degree of readiness" of initial attack (IA) resources. The Preparedness Level (PL) is used as a basis to make daily internal fire operations decisions affecting our agency personnel. At each PL, this plan identifies:

1. *Daily staffing*
2. *Draw-down levels*
3. *Step-up actions*

This Plan will function most effectively when decisions are made in preparation for escalating fire danger and potential fire activity. Waiting until the day of a critical event during extreme fire danger will prove this plan ineffective.

To facilitate preparedness planning and orderly, effective, and efficient dispatching of initial attack forces, the BKF has established several aids to dispatching that are described below.

Preparedness level (PL) is a wide-scoping planning mechanism that is based not only on current and forecasted burning conditions, but more importantly, based on fire activity, both present and expected and on resource availability and commitment. Five preparedness levels are recognized and summarized as follows:

PL-1 – No large fire activity on Forest or adjacent lands. Most Districts have low to moderate adjective class ratings. Little or no commitment of forest resources locally or nationally. Preseason preparedness duties being accomplished

PL-2 – Class A and B fires occurring on Forest and/or adjacent lands and a potential for escapes to larger (project) fires. One or more Districts experiencing moderate to high adjective rating class. Resources within the Forest and local cooperators are handling the situation. A potential does exist for requesting additional resources from RMACC.

PL-3 – Two or more incidents (Class B, C or larger) on Forest or adjacent lands requiring a major commitment of resources or major special event with significant increase in human caused risk with a resultant drain on resources. Likelihood of additional resources being requested and mobilized through RMACC. Adjective rating class is high to very high. One or more Districts or a majority of the local reinforcement resources are committed to regional and national responses.

PL-4 – One or more Districts is experiencing fires requiring Type I or II teams or special events with high human caused risk activities, requiring management by the local Initial Attack organizations or a need to request additional Incident Management support. Potential for numerous additional incidents exist and/or numerous other incidents are being reported or are in progress depleting local resources. On-going mobilization of resources through RMACC. Adjective rating class is high too extreme on the Forest. Most of the local reinforcement resources are committed to local, regional, and national responses. No relief in fire severity or fire weather conditions predicted near term.

PL-5 –Forest and cooperator resources are committed to local, regional and national incidents and initial attack is high causing a potential for additional major incidents on the Forest. Resource orders placed with RMACC are outstanding. Adjective rating class is very high to extreme.

Preparedness level will be used to determine staffing needs for the Black Hills National Forest and these levels may also be utilized to address needs within the greater Great Plains Interagency Dispatch Zone (GPC). A determination of the appropriate daily preparedness level will be determined by the GPC Board of Directors, either by a conference call or face-to-face meeting.

Preplanned Single Incident Initial Attack Dispatching Guidelines

Initial attack dispatching for the Black Hills NF is centralized and managed by GPC. This Dispatch Center provides initial attack dispatching services to the forest and other federal and state agencies within the Black Hills Fire Protection District, parts of Nebraska and Wyoming. The Center also provides dispatch support to numerous organizations within South Dakota, Nebraska, Wyoming and part of North Dakota. The Center's goal is to provide a dispatch system that safely and promptly mobilize resources, such as qualified personnel, equipment and supplies needed to support wildland fires and All Risk incidents. It has developed and maintained a safe, cost effective organization that follows National and Regional procedures identified in mobilization guides (National, Regional and Local).

A pre-identified Dispatch Plan (Run Cards) has been developed for the Black Hills NF, and computer aided dispatch software called Wildcad is used to efficiently dispatch and track initial attack resources. This process provides for a thought out preplanned initial attack response by response area; resource staffing needs, at different planning levels; and consideration of additional responses as appropriate. Significant deviation from these preplanned responses may occur after consultation between the GPC Manager, the FFDO, and Zone FDO's as needed. Rationale for these deviations will be recorded on the incident report.

During the normal fire season, the need for extended staffing beyond 1800 will be determined through discussions by the FFDO, respective Zone FDO, and GPC Manager as needed. Needed extensions should be read by GPC over the radio to ensure all forest resources are informed. Reasons for extending staffing can include increased human risk, recent, forecasted or ongoing lightning, ongoing fire suppression activities, and support to adjoining units.

Draw-Down

Draw-down is the predetermined number and type of suppression resources that are required to maintain viable initial attack (IA) capability at either the local or geographic area. The probability of initial attack success is contingent upon the availability of suppression resources during periods of high fire danger. Drawdown resources are considered unavailable outside the local or geographic area for which they have been identified. Drawdown is intended to:

- *Ensure adequate fire suppression capability for local and/or geographic area managers; and*
- *Enable sound planning and preparedness at all management levels.*

Factors Affecting Draw-Down

Draw-down levels can change dramatically in a short period of time. A few factors which can affect staffing and resource commitment/availability include the following:

1. **Response (or Dispatch) Level**
   Staffing Levels have a direct effect on the ability to send pre-determined suppression resources to wildland fires, depending upon the Response Level (and vice versa). Even under normal threat levels, a routine call for service can deplete the availability of a unit's resources and result in a degree of drawdown. If an incident becomes prolonged or requires the commitment of resources beyond the initial response, the agencies capabilities can be affected.

2. **Unit Size**
   The size of an agency has a direct impact on its ability to manage its drawdown status. The deeper resource pool allows more flexibility for maintaining adequate coverage within the home jurisdiction. Agencies of medium to smaller size can be challenged to maintain geographical coverage at times of increased emergency activity. In the case of some smaller agencies, a single resource committed to an incident can result in extreme drawdown and challenge their ability to meet their basic jurisdictional coverage responsibilities.

3. **5-day Versus 7-day Resource Staffing**
   When considering the full capacity of a unit, we include all personnel and resources. For ground resources (engines, dozers, water tenders) and overhead (FOS, ICs, Dispatchers, FMOs, AFMOs, Duty Officers, Resources Advisors, etc.), the daily operating capacity is typically a fraction of the full capacity due to staffing limitations and scheduling days off. Therefore, the "daily" capacity is used as the benchmark for draw-down levels unless a unit has sufficient personnel to keep a resource operational 7 days per week. Aviation resources are typically under contract during the fire season to be available 7-days per week. Aviation resources are highly mobile and will respond to fire activity with the greatest need; often, outside the local jurisdiction.

4. **Interagency Cooperation & Commitment**
   Most wildland fire emergency communication centers provide dispatch services to multiple agencies. When multiple agencies respond to incidents on each other's jurisdiction – usually based on the closest available resource(s) –coordination amongst the affected agencies is essential to maintain interagency relationships and provide effective and efficient response to incidents.

5. **Multiple Fires**
   Maintaining capacity to respond to a reported incident is the intended outcome of a Staffing Plan. However, when more than one incident occurs concurrently within the respective unit's response area, a unit's capacity is certainly diminished or exhausted.

Minimum BKF Drawdown Levels

"Draw-Down" is the degree of response capabilities of an agency due to the impact of emergency activity within their home jurisdiction and/or their commitment of resources to the mutual aid system for incident response outside of their jurisdiction. Minimum drawdown levels provide guidelines for determining the minimum number and type of resources that need to be available on-forest or ordered as the list is depleted, at a given staffing level. This list of resources is considered adequate to provide additional coverage should more than one fire occur simultaneously across the BKF (see charts and lists that follow). As with the dispatching guidelines, any deviations from these guidelines will involve consultation between GPC Manager, the FFDO, and Zone FDO's, and the rationale for any change will be documented in dispatch logs. Forest Duty Officer qualifications will be DIVS and ICT3 or RXB2.

Management Actions and Management Action Points

Management Action Points for each staffing level have been established to determine management actions related to filling off-forest resource orders and responses to single and multiple incidents.

The following charts and lists clarify the information that will be used to assist Fire Managers during initial attack dispatching.

Black Hills National Forest Drawdown Levels

PREPAREDNESS LEVEL 1

Minimum BKF Drawdown Level
1 FFDO (qualified at DIVS and ICT3 or RXB2) 3 Zone FDOs (qualified at DIVS and ICT3 or RXB2) 3 Wildland Engines (1/Zone)

Management Action Point	*Management Action*
Single unplanned ignition:	Follow GPC Runcards
Anticipating or experiencing more than 1 ignition.	Maintain Minimum Drawdown Level (MDL) – shift BKF resources or order appropriate resources. Consider extended staffing into the evening.
Requests for resources outside Zone	Fill resource orders and go below MDL if needed to support other geographic areas.

PREPAREDNESS LEVEL 2

Minimum BKF Drawdown Level
1 FFDO (qualified at ICT3 and DIVS or RXB2) 3 Zone FDOs (qualified at DIVS and ICT3 or RXB2) 6 Wildland Engines (2/Zone) or 1 IA Squad (5 People) and 1 Wildland Engine (per zone)

Management Action Point	*Management Action*
Single unplanned ignition:	Follow GPC Runcards
Anticipating or experiencing more than 1 ignition.	Maintain Minimum Drawdown Level (MDL) – shift BKF resources or order appropriate resources. Consider extended staffing into the evening.
Requests for resources outside Zone	Fill resource orders and consider going below MDL to support other geographic areas when Preparedness level is expected to remain on average at PL 2.

PREPAREDNESS LEVEL 3

Minimum BKF drawdown Level
1 FFDO (Consider 2) (ICT3 and DIVS or RXB2) 3 Zone FDOs (1/Zone) (DIVS and ICT3 or RXB2) 9 Wildland Engines (3/Zone) (T3, T4 or T6) 1 IA Module and/or T2 or T2IA Handcrew 1 T3 Helicopter with Module ATB Staffed with ATBM and Loaders 2 ICT3s 1 Dozer with HEQB

Management Action Point	*Management Action*
Single unplanned ignition:	Follow GPC Runcards
Anticipating or experiencing more than 1 ignition.	Maintain Minimum Drawdown Level (MDL) – shift BKF resources or order appropriate resources. Status and monitor BKF Dozers (2). Consider extended staffing into the evening. Consider need for severity funding and request as appropriate. Start weekly FMO conference calls.
Requests for resources outside Zone	Consider filling resource orders but maintain MDL while supporting other geographic areas.

PREPAREDNESS LEVEL 4

Minimum BKF Drawdown Level
2 FFDO (ICT3 and DIVS or RXB2) 3 Zone FDO's (*1/Zone) (DIVS and ICT3 or RXB2) 12 Wildland Engines 1 Type 2 or T2 IA Handcrew 1 T3 Helicopter w/Module 2 Dozers with HEQB 1 Fire Investigator ATB Fully Staffed with ATBM, Loaders, and support personnel 3 ICT3s

* Consider ordering an additional Zone DO when activity warrants additional help on a zone/district.

Management Action Point	*Management Action*
Single unplanned ignition:	Follow GPC Runcards
Anticipating or experiencing more than 1 ignition.	Maintain Minimum Drawdown Level (MDL) – shift BKF resources or order appropriate resources. Consider staffing into the evening. Status and monitor BKF Dozers (2) with HEQB if possible. Consider ordering additional engines, Type 1 or II I.A. crews, additional T3 Helicopter, Heavy A/T, ATGS w/Platform, Prevention Patrols, Fire Information Officer, Prevention Team, Fire Behavior Analyst, and additional overhead including safety. Consider putting Type III Organization on alert. Districts consider filling support positions – planning, logistics and finance. FFDO, Zone FDOs and GPC will consult to set incident priorities and order additional resources listed above as needed, considering number of starts to date and resistance to control and other current conditions. Provide arriving off-Forest resources with thorough briefing on fuel conditions, observed and anticipated fire behavior. Continue requests for severity funding. Consider BKF restrictions/closures. Request GPC LMAC Group meeting or call as needed.
Requests for resources outside Zone	Consider filling resource orders but maintain MDL if supporting other geographic areas.

PREPAREDNESS LEVEL 5

Minimum BKF Drawdown Level
2 FFDO (ICT3 and DIVS or RXB2)
3 Zone FDO's (*1/Zone) (DIVS and ICT3 or RXB2)
14 Wildland Engines
1 Type 2 or T2 IA Handcrew
1 T3 Helicopter w/Module
3 Dozers with HEQB
ATB Fully Staffed with ATBM, Loaders, and support personnel
3 ICT3s

***** Consider ordering an additional Zone DO when activity warrants additional help on a district/zone.

Management Action Point	*Management Action*
Single unplanned ignition:	Follow GPC Runcards
Anticipating or experiencing more than 1 ignition.	Maintain Minimum Drawdown Level (MDL) – shift BKF resources or order appropriate resources. Consider ordering resources listed at PL 4 and in addition, consider type 1 helicopter, prevention team, 1 additional ATGS and other additional air support resources, additional Fire Information Officers, additional SEAT and strike team of engines (consider both heavy and light engine strike teams/task forces) additional crews, and additional overhead including Safety positions. Put Type III organization on alert. Districts consider filling support positions – planning, logistics, and finance. FFDO, Zone FDOs and GPC will consult to set incident priorities and order additional resources listed above as needed, considering number of starts to date and resistance to control and other current conditions. Provide arriving off-Forest resources with thorough briefing on fuel conditions, observed and anticipated fire behavior. Implement BKF restrictions/closures. Request GPC MAC Group meet daily.
Requests for resources outside Zone	Maintain MDL and any requests for resources that would cause the Forest to drop below this level must be approved by the Fire Staff Officer or Deputy Fire Staff Officer.

SDWF Staffing Levels

GPC Preparedness Level 1	• 1 Duty Officer • 1 ICT4 • 2 Type 6 or larger Engine (1 North, 1 South)
GPC Preparedness Level 2	• 1 Duty Officer • 1 ICT4 • 2 Type 6 or larger Engines (1 North, 1 South) • 1 Ten-person module • Dozer availability ensured • Ops call as needed • Consider opening SEAT base in Black Hills area

GPC Preparedness Level 3	• 1 Duty Officer • 2 ICT4 • 4 Type 6 or larger Engines • 1 Type 2 IA Crew • Dozer loaded on transport with operator identified • 1 HEQB • 1 INVF (Order) • 2 SEAT • 1 SDNG Helicopter • State Type 3 Team notified (Type 3 IC and IC trainee position verified) • 1 PIO identified and required attendance on weekly ops call • Weekly Ops call • Consider public information campaigns regarding fire danger and human caused fire ignitions • Maintain Black Hills Fire Restriction website
GPC Preparedness Level 4	• 2 Duty Officers • 3 ICT4 • 6 Type 6 or larger Engines • 2 Type 2 IA Crews • Dozer loaded on transport and dozer staffed with two operators (Double shift) • 2 HEQB (Double shift) • 1 INVF (Order) • 2 SEATs • 1 SDNG Helicopter • 1 Air Attack platform with ATGS • State Type 3 Team on alert (Command and General staff identified on roster and available to respond in 2 hours.) • SDWF – 2 Plans Trailer • SDWF – 3 Finance Trailer • 1 PIO, consider ordering an additional PIO based on workload, PIO required attendance on daily ops call, consider locating PIO at GPC

	• 1 SDWF Administrative staff with purchasing authority • 1 Logistics Manager with a minimum of 2 drivers • Daily Ops call • Consider public information campaigns regarding fire danger and human caused fire ignitions • Consider implementing fire restrictions in coordination with interagency partners
GPC Preparedness Level 5	• 2 Duty Officers • 4 ICT4, 2 ICT3 • 8 Type 6 or larger Engines • 2 Type 2 IA Crews • 2 Dozers loaded on transport staffed with 4 operators (Double shift) • 4 HEQB (Double shift) • 1 INVF (Order) • 2 SEAT • 2 SDNG Helicopters • 1 Air Attack platform with ATGS • State Type 3 Team on alert (Command and General staff identified on a roster and available to respond in 1 hour) • SDWF – 2 Plans Trailer • SDWF – 3 Finance Trailer • 1 PIO, consider ordering an additional PIO based on workload, PIO required attendance on daily ops call, consider locating PIO at GPC • 2 SDWF Administrative staff with purchasing authority • 1 Logistics manager with a minimum of 2 drivers • Daily Ops calls • Agency Administrator identified • Vehicles and drives identified for team trailers

	• Implement public information campaigns regarding fire danger and human caused fire ignitions • Implement fire restrictions in coordination with interagency partners

BLM WY HPD Step-up and Draw-down plan based on GPC preparedness levels:
Note: all actions described below in the following table are managed exclusively by the HPD duty officer.

Preparedness LEVEL 1	
Initial Attack Operations	Duty Officer available 24-7 Minimum Drawdown: ☑ Duty Officer ☑ 1 engine in either Buffalo or Casper (excess of 2 hour response time) Normal Staffing Hours
Preparedness LEVEL 2	
Initial Attack Operations	Duty Officer available 24-7 Minimum Drawdown: ☑ Duty Officer ☑ 1 engine in either Buffalo or Casper (excess of 2 hour response time) Normal Staffing Hours
Preparedness LEVEL 3	
Initial Attack Operations	Duty Officer available 24-7 Minimum Drawdown: ☑ Duty Officer ☑ 2 engines in either Buffalo or Casper (excess of 2 hour response time) ☑ Ensure readiness of engines for local dispatch Normal Staffing Hours unless extended by HDD ODO
Preparedness LEVEL 4	
Initial Attack Operations	Duty Officer available 24-7 Minimum Drawdown: ☑ Duty Officer ☑ 1 ICT3 (Can be coordinated with Inter-agency partners.) ☑ 3 HPD engines in either Buffalo or Casper (excess of 2 hour response time) Step/up considerations ☑ HPD duty officer will consider prepositioning 1 engine at Newcastle (on Severity) ☑ HPD duty officer will consider supporting Great Plains Dispatch with extended staffing needs. Normal staffing hours unless need to extend as determined by HPD ODO or FMO/AFMO

Preparedness LEVEL 5	
Initial Attack Operations	Duty Officer available 24-7 Minimum Drawdown: ☑ Duty Officer ☑ 1 ICT4 (Can be coordinated with Inter-agency partners.) ☑ 1 ICT3 (Can be coordinated with Inter-agency partners.) ☑ 3 HPD engines in either Buffalo or Casper (excess of 2 hour response time) Step/up considerations: ☑ HPD duty officer will consider prepositioning 1 engine at Newcastle (on severity) ☑ HPD duty officer will consider supporting Great Plains Dispatch with extended staffing or additional staffing needs. (on Severity) 7 day coverage On Duty during Holidays Normal staffing hours unless need to extend as determined by HPD ODO or FMO/AFMO

US FWS Great Plains Fire Zone: Nebraska

Step-Up Plan

The Step-up plan is designed to direct incremental preparedness actions in response to increasing or decreasing fire danger. The Fire Management Officer will use a combination of the factors below in determining the appropriate staffing level. The FWS Fire Management Handbook requires that the 90th and 97th percentiles of the BI are used in determining staffing levels 4 and 5.

The step-up plan outlines the responses to five classes of fire danger which relate with adjective class ratings. Staffing levels 1-5 correspond with Low, Moderate, High, Very High, and Extreme adjective ratings.

The Burning Index and 1,000 hour fuels were calculated from the RAWS located at Valentine NWR for the years of 2003-2009 with Fuel Model G being used. The Valentine and Crescent Lake station represents the area but limited amount of data is available as the stations started operating in December of 2003. Once an adequate history is developed from those stations, they will be used to calculate burning indices and track 1,000 fuel levels.

S/L	BI	Drought Monitor	1,000 Fuels	KDBI
5	97th $\geq$ 50	D4-D3	$\leq$ 12	>501
4	90th 40-50	D3-D2	13-14	451-500
3	30-39	D2-D1	14-15	450-400
2	10-29	D1-D0	>15	399-300
1	0-9	D0	>15	299-0

In addition to the considerations listed in the table, the Fire Management Officer may also consider the predicted Lighting Activity Level, Mechanical ranching activities along or near refuge boundaries, resources committed, high visitor occurrence days, and preparedness levels, in determine the appropriate staffing level.

Preparedness Level/ Staffing Class, Adjective Rating	**Actions To Be Taken**
Level 1 Low Fire Danger	Limited number of engines fully operational in heated engine bays.
Level 2 Moderate Fire Danger	Equipment will be checked weekly, ICT5 may respond to reported fires, Collateral duty fire staff have PPE at office, Weekly sit report send to GPC and regional fire staff
Level 3 High Fire Danger	Open PEO6 accounts, Collateral duty fire staff carry PPE in field
Level 4 Very High Fire Danger	Consider ordering ICT3, prepare interagency severity request, Respond to reported fires with minimum of three T6 engines and ICT 4, Adjust personnel schedules to burn period, Insure personnel are in place to perform dispatch duties, Sit report send daily to GPC and regional fire staff
Level 5 Extreme Fire Danger	Place resource order for ICT3 if there is not one in FMU, Respond to all reported fires with a minimum of five T6 engines and ICT4, consider limiting public access, broadcast fire danger through local radio stations, 7 day staffing coverage, Consider canceling training and annual leave.

Each higher level requires previous levels actions will continue implementation.

APPENDIX C-PREVENTION PLAN (FIRE DANGER COMPONENTS)

Fire Danger Determination

Fire danger adjective ratings are determined separately and differently for the area within the Black Hills Forest Fire Protection District (Black Hills Area) and the grassland areas. The Black Hills area index is an observation based system whereas the grassland index is a forecast based system.

Black Hills Area fire danger is calculated by Great Plains Dispatch and issued daily as required. Calculations are determined through the use of WIMS and RAWS data. Fire danger for the Black Hills Area utilizes the RAWS listed below and is separated into the following geographical areas; Northern Hills (Lawrence County), Central Hills (Pennington and Meade counties), and Southern Hills (Custer and Fall River counties) and is posted on the GPC Website. The highest fire danger adjective rating from the RAWS within the Black Hills Area is used. Response levels are calculated based upon energy release component or burning index, dependent on the representative fuel model, as forecast day.

- Nemo – 392506
- Baker Park – 393606
- White Tail – 392607
- Custer – 393506
- CSP – 393507
- Red Canyon - 395105
- Bearlodge – 480605
- Rapid City West – 392608
- Spearfish - 392507

Note: Smokey Bear signs should reflect the closet RAWS adjective rating or local conditions.

Grassland area fire danger is a forecast index calculated by the National Weather Service and is issued daily as required (typically April through November). Calculations account for vegetative greenness - derived through satellite interpretation and fire manager condition reports - and weather conditions. The weather condition component accounts for forecast wind, temperature, and relative humidity.

APPENDIX D- PUBLIC FIRE RESTRICTION PLAN

Current fire restrictions for the Black Hills area are posted at http://blackhillsfirerestrictions.com/. Each agency updates their information as conditions dictate. Fire restrictions coordination calls occur between all agencies when the fire danger reaches high to very high or counties begin to enact restrictions.

APPENDIX E-RESPONSE PLAN

A. Purpose

Local-level Initial Pre-planned Response Plans, also referred to as "Run Cards", specify the fire management response (e.g., number and type of suppression assets to dispatch) within a defined geographic area to an unplanned ignition, based on fire weather, fuel conditions, fire management objectives, and resource availability.

B. Terminology

1. Response Level

Response levels (e.g. "Low", "Moderate", "High") are established to assist fire managers with decisions regarding the most appropriate response to an initial fire report until a qualified Incident Commander arrives at the incident. Fire Family Plus software is used to establish the Response Level thresholds. A statistical analysis of fire occurrence and historical weather has been completed for each FDRA. The correlation of various combinations of NFDRS outputs with weather records is listed in Appendix A.

2. Response Zone

Response Zones are identified for the Great Plains Zone. Response zones may be based on various criteria such as: common management objectives, land use, fire load, dispatch locations, estimated response times, WUI locations, topographical features, vegetation communities, etc.

3. Dispatch Center

Each geographic area has established dispatch centers that mobilize and demobilize resources directly with the geographic area coordination center. The dispatch center is the focal point for mobilizing firefighting resources between units within the dispatch area responsibility, coordinating incoming resources into the dispatch area, dispatching resources mobilized out of the dispatch area, and collecting and disseminating fire intelligence information within dispatch area and with the geographic area coordination center.

4. Pre-Planned Response Plan

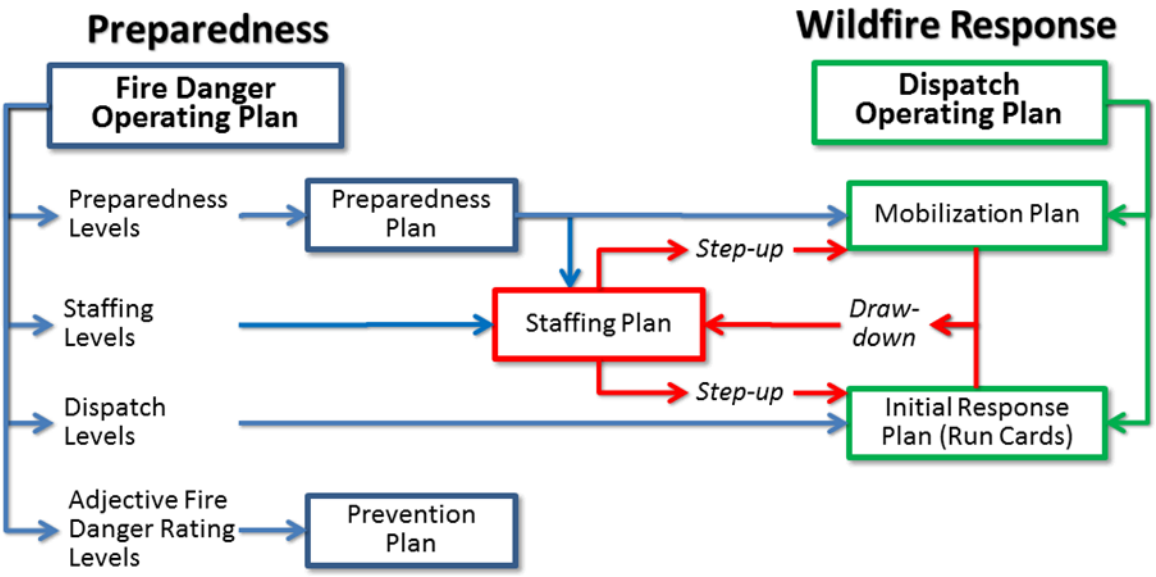
Each dispatch center with the responsibility for initial response to wildland fires shall have a pre-planned response plan that allocates resources to new wildland fires in accordance with fire management direction, initial attack agreements, and established ordering procedures. The pre-planned response plan will be reviewed and updated annually prior to fire season.

C. Policy and Guidance

Policy and guidance regarding the development of Pre-Planned Response Plans can be

found in chapter 19 of the Interagency Standards for Fire & Aviation Operations (Red Book).

Fire Management Officers will ensure that Pre-planned Response Plans are in place, utilized, and provide for initial response commensurate with guidance provided in the FMP and/or LRMP. Initial Pre-planned Response Plans will reflect agreements and annual operating plans and will be reviewed annually prior to fire season. These plans may be modified as needed during fire season to reflect the availability of national, prepositioned, and/or severity resources. Specific agency directives and interagency guidance requires numerous unit plans and guides to meet fire preparedness and wildfire response objectives. Some of these plans and guides are inter-related; one or more plans/guides provide the basis for other plans/guides. The Response Plan is an operational plan tiered from the Fire Danger Operating Plan as shown below:



D. Run Card Overview

The Interagency Run Cards are developed by a group of interagency representatives to provide guidance to Great Plains Dispatch for initial attack dispatching of wildland fire suppression resources within pre-identified geographic areas (response zones).
The run cards will be used when a wildfire is reported and doesn't meet the discretionary smoke report criteria listed below. When an NWCG qualified Incident Commander is on scene of the fire, they may adjust the pre-established initial attack response as identified on the run card by cancelling resources currently enroute (or about to be dispatched) or by ordering additional resources as needed. Until such time as an IC is on scene, the Duty Officer is responsible for the fire response and can modify the run card as necessary.

During periods of large/multiple fire activity, when there are not enough resources to fill the run cards, the Duty Officers will be available to Great Plains Dispatch to determine incident prioritization and response.

E. Run Card Procedures

- During working hours, Great Plains Dispatch will dispatch the closest available resource according to the appropriate Fire Danger Rating Area (FDRA) Dispatch Level.
- After resource duty hours, dispatchers will contact the jurisdictional Duty Officer, who will determine the level of response.
- Volunteer fire departments (or any other resource not dispatched by Great Plains Dispatch) will not be considered as meeting the run card requirements for numbers of resources during the initial attack dispatch unless it is it is specifically stated under Special Instructions For Dispatchers."

1) Discretionary Smoke Reports:

When any of the following smoke reports are received, the run card will not be sent, and the jurisdictional Duty Officer will be contacted to determine the response.

- Federal Aviation Administration (FAA) Report
- Abandoned Campfires, when clearly stated that it is still within the ring
- Incidents that local volunteer fire departments have responded to, or are on scene and are requesting no additional resources

2) Limited Response Plan:

Periodically Great Plains Dispatch dispatch zone gets widespread lightning activity resulting in numerous starts, many of these single tree lightning strikes. It is not possible to dispatch the number and type of resources called for in the run card plan to each of these fires. This plan is designed to provide guidance to Great Plains Dispatch staff in order to coordinate an initial response under these multiple start conditions (generally considered 3 or more starts).

Under circumstances where multiple starts are likely to occur (i.e. forecasted LAL 6) or are occurring and each FDRA is at a Dispatch Level of Moderate or higher the Great Plains Dispatch Center run card plan may be suspended and guidance provided by area Duty Officers for initial response to new starts. It is desired that the Duty Officer's meet at Great Plains Dispatch to provide coordinated guidance to the floor supervisor whenever possible. A MAC call may be initiated if meeting in person is not possible.

Duty Officers should consider using the following priorities for dispatching resources*:

1. When there is a direct threat to human life
2. When there is a direct threat to homes or communities
3. When there is a direct threat to other high value infrastructure or

improvements
4. When the fire is in an identified sage grouse protection area
5. All others

Until such time as the Duty Officers are able to provide coordinated direction to Great Plains Dispatch, the floor supervisor is authorized to determine the fire priorities based on given direction and make modifications to the established run card response during multiple start events.

During circumstances where there are no longer resources available to be dispatched to a new smoke report, Great Plains Dispatch staff will notify the Duty Officers of each new report and they will, considering the priorities mentioned above, make a determination of needed staffing adjustments and provide guidance to Great Plains staff as to what resources to dispatch to each new smoke report.

*Additionally, if on any given day when all FDRAs are at a Dispatch Level of Moderate or higher and Great Plains Dispatch recognizes the inability of daily staffed resources to fulfill a dispatch of any run card then the Great Plains Dispatch Response Plan/run cards may be suspended, and any start would use the prioritization process as identified above.

APPENDIX F-**RUN CARDS**

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **BADLANDS N.P.** Representative RAWS: **Pinnacles 392602 (Y Model)**

DUTY OFFICER CONTACT
Primary: NGP Duty Officer
Secondary: Wall District Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-20	**RESPONSE LEVEL 2 BI = 21-29**	**RESPONSE LEVEL 3 BI = 30+**
Engine(s) – Type 3, 4 or 6	Respond	Respond 2	Respond 3
Squad / Module			Respond 1
ICT4	Respond 1	Respond 1	
ICT3			Respond 1
Water Tender	Notify	Notify	Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

NPS ownership – Practice Mist tactics on NPS Land
Dozer and retardant use must be authorized by Park Superintendent.
Tender available from Badlands NP
Special Area – Badlands Wilderness, Natural FMU, Use of Wildland Fire is authorized
D= DIGITAL, N= NARROWBAND

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG/NAC	TRANSMIT	CG/NAC	DESCRIPTION
NBF Wall Repeater					*Command: Como with GPC from East end
NBF East Willow Repeater					*Command: Como with GPC from West end
CZ Rushmore Repeater					*Command: Alternate Como with GPC
VFIRE 22					Tactical
VFIRE 23					Tactical
VFIRE 21					Tactical - Structure Protection
Badlands Direct					Tactical – Digital to Park HQ
Badlands Repeater					Tactical – Digital to Park HQ
A/G 25					Air to Ground - Primary
A/G 31					Air to Ground - Secondary
VMED 28					A/G AIR AMBULANCE W/I GPC ZONE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Bearlodge** Representative RAWS: **480605 Bearlodge (Y Model)**

DUTY OFFICER CONTACT:
Primary Duty Officer: NZ FS D.O.
Secondary Duty Officer: Crook County WY

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	RESPONSE LEVEL 1 ERC = 0 - 13	**RESPONSE LEVEL 2** ERC = 14 - 33	**RESPONSE LEVEL 3** ERC = 34 +
Engine(s) – Type 3, 4 or 6	**Respond 1	Respond 1/** Respond 1	Respond1/**Respond 1
IA Module	**Respond 1	**Respond 1	**Respond 1
IA Helicopter		Respond	Respond
SEAT(s)			Respond
Air Tanker(s)			Respond
Air Attack			Respond
	** Send only one unit Whichever is closest	** Send only one unit Whichever is closest	** Send only one unit Whichever is closest

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Areas of Special Concern

Name of Concern Area	Description of Concern Area
Sundance (WUI Issues)	Any start w/in a 5-mile radius of Sundance, WY.
Hulett (WUI Issues)	Any start w/in a 5-mile radius of Hulett, WY.
Hay Creek RNA (Resource Issues)	Action taken in this area (T54N, R62W, Sec 7, 8, 17, 18) will be based on AMR and current conditions, if conditions warrant, consider MIST tactics.
Farral (WUI Issues)	Farral, WY to Cook Lake – Any start along FDR 843; w/in one mile on either side of road
Alva (WUI Issues)	Alva, WY to Aladdin, WY – Any start along Highway 24; w/in a one mile on either side of Rd.
Devil's Tower Nat'l Monument (Resource, and WUI Issues)	DETO – (T53N, R65W, Sec 7). Practice MIST tactics on NPS land. Dozer use, off-road driving, and retardant use must be authorized by Park Superintendent.
Sundance US-AFS (Health and Safety)	Next to Warren Peak L.O. – Restricted Area/No admittance w/in fenced area (T52N, R63W, Sec 20)
Gantz Pond (Do Not Use)	Gantz Pond (44° 46' 01" x 104° 25' 05" / T55N, R63W, Sec 09) is NOT to be used as a helicopter dip site.

Special Instructions for Dispatchers

- Have all responding units take radio traffic to North Zone.

Initial Attack Communications Plan

CHANNEL (GRP 1)	DESCRIPTION
*2-NZ WARREN	*Command – Como with GPC
7-VFIRE 21	Tac 1
10-CROOK TALK AROUND	Tac 2
12-R2 FIRE TAC	Tactical
13-BKF FIRE TAC	Tactical
14-A/G 35	SD-Air to Ground –Primary
14-A/G 25(Group 3)	Air to Ground –Alternate
15-VMED28	A/G AIR AMBULANCE W/I GPC ZONE
16-AIR GUARD	Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **BEAVER** Representative Raws: **395105 Red Canyon (Y Model)**

DUTY OFFICER CONTACT
Primary: SZ FS D.O
Secondary: Weston County Wy

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 24	**RESPONSE LEVEL 2 ERC = 25 - 44**	**RESPONSE LEVEL 3 ERC = 45 +**
Engine(s) – Type 3. 4. Or 6	Respond 1	Respond 1	Respond 2
ICT4		Respond 1	Respond 1
ICT3		Notify	Notify
IA Helicopter	Respond	Respond	Respond
Air Attack			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers. * Confirm with IC
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Limited access.
Retardant and heavy equipment use restricted in Whoopup Canyon and on portions of BLM land.
BLM Land Notify HPD DO of any fires on BLM or within 1 mile to BLM Lands

Initial Attack Communications Plan

CHANNEL (GRP 13)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-FOREST NET					*Alternate Command-Como with GPC
3-SZ ELK					*Command-Como with GPC
**4-SZ PORTABLE					*Command-Como with GPC
5-(GRP 5) SZ BALL					*Command-Como with GPC
5-WESTON EAST COUNTY REPEATE					Command-Weston County Repeater-Como to Weston County Sheriff Office
7-WESTAC					Tactical – Weston County
8-VFIRE 21					Tactical - Structure Protection
9-VFIRE 22					Tactical-Meade and Pennington Counties
10-VFIRE 23					Tactical - Custer and Fall River Counties
11-A/G 15					Air to Ground –Alternate
12-A/G 24					Air to Ground – Primary
13-A/G 35					Air to Ground - Alternate
14-WESTON PAGE					New Castle/Weston County Tone Out
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.
stored at Hell Canyon fire cache * stored at BKF Cache BOTH need to be ordered through GPC for the incident

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Bessey** Representative RAWS: **252402 Bessey (Y Model)**

DUTY OFFICER CONTACT
Primary: Bessey District Duty Officer
Secondary: Nebraska National Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-19	**RESPONSE LEVEL 2 BI = 20-27**	**RESPONSE LEVEL 3 BI = 28+**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 1	Respond 1
Engine(s) – Type 7		Respond 1	Respond 1
ICT4	Respond 1	Respond 1	Respond 1
ICT3			Notify
SEAT(s)		Respond 1	Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Remote location and limited access-personnel equipped to dig handline required.

VFD units may be considered as part of the response if local county dispatch center confirms they are responding.

Initial Attack Communications Plan

CHANNEL (GRP 11)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-EAST DIRECT					***PRIMARY** Command-Commo with GPC
16-NENZEL REPEATER					*ALTERNATE Command-Commo with GPC
4-R2 TACTICAL					Tactical
5-A/G 25					Air to Ground Primary
12-VTAC 11					Tactical
13-VTAC 12					Tactical
3-A/G 5					Air to Ground Secondary

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Cement** Representative RAWS: **480605 BEARLODGE (Y Model)**

DUTY OFFICER CONTACT:
Primary Duty Officer: NZ FS D.O
Secondary Duty Officer: South Dakota State Duty Officer or Crook County WY

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 – 13	Response Level II ERC = 14 - 33	Response Level III ERC = 34 +
Engine(s) – Type 3, 4 or 6	**Respond 1	Respond 1/ **Respond 1	Respond 2/ **Respond 1
IA Module	**Respond 1	**Respond 1	**Respond 1
IA Helicopter		Respond	Respond
SEAT(s)		Respond 1	Respond 1
Air Tanker(s)			Respond
Air Attack			Respond
	** Send only one unit Whichever is closest	** Send only one unit Whichever is closest	** Send only one unit Whichever is closest

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Areas of Special Concern

Name of Concern Area	Description of Concern Area
Inyan Kara (Fuel Loading, and Resource Issues)	Action taken in this area will be based on AMR and current conditions, if conditions warrant, consider MIST tactics; restrictions on mechanized equipment / retardant.
Sand Creek Roadless Area (Access, and WUI Issues)	Beulah, WY to Rifle Pit Divide – Any start along FDR 863; w/in a ½ mile on either side of Rd. Heavy fuel loading from savoy to Cheyenne Crossing from Tornado damage
Tinton (WUI Issues)	T5N; R1E; S19 – Any start w/in a 2-mile radius of Tinton
Spearfish Canyon (Access, and WUI Issues)	From the mouth of the canyon, beginning @ Spearfish, SD along U.S. Highway 14A to Hanna
Spearfish Work Center (WUI Issues)	Any start w/in a 5-mile radius of the USFS Spearfish Work Center.
Iron Creek (WUI Issues)	Any start w/in a 3-mile radius of Iron Creek .

Special Instructions for Dispatchers

- Have all responding units take radio traffic to North Zone.
- BLM Land Notify HPD DO of any fires on BLM or within 1 mile to BLM Lands

Initial Attack Communications Plan

CHANNEL (GRP 1)	RECEIVE	CG	TRANS MIT	CG	DESCRIPTION
*3-NZ TERRY					*Command – Como to GPC
7-VFIRE 21					Tac 1
8-VFIRE 22					Tac 2
11-CROOK TALK AROUND					Tactical
12-R2 FIRE TAC					Tactical
13-BKF FIRE TAC					Tactical
14-A/G 35					SD Air to Ground – Primary
14-A/G 25 (Group 3)					Air to Ground – Secondary
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency
Dispatch Center

PREPLANNED DISPATCH
CARD

I.A. Response Zone: **CusterState Park** Representative RAWS: 393507 Custer State Park

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer
Secondary Duty Officer: SZ FS D.O

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 - 24	Response Level II ERC = 24-44	Response Level III ERC = 45 +
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT4		Respond 1	Respond 1
Type 2 IA Crew			Respond 1
IA Helicopter		Respond	Respond
SEAT(s)			Respond 1
Air Attack			Respond
Dozers W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers. Custer State Park fireguard engines **are not** considered part of the response.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Instructions/Concern	
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
SZ - CICERO					*Command, South Zone
Black Hills Fire 3-Digital					*Alternate Command, South Zone
VFIRE 23					Tac 1 – Tactical Operations
VFIRE 22					Tac 2 – Tactical Operations
VFIRE 21					Tac 3 – Tactical Operations
A/G 24					Air to Ground-Primary
A/G 35					Air to Ground – Alternate
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

†If USFS or NPS resources are responding, Analog is preferred for Command.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **CUSTER** Representative Raws: **393506 Custer (Y Model)**

DUTY OFFICER CONTACT
Primary: SZ FS D.O
Secondary: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 20	**RESPONSE LEVEL 2 ERC = 21 - 38**	**RESPONSE LEVEL 3 ERC = 39 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT4		Respond 1	Respond 1
ICT3		Notify	Notify
IA Helicopter	Respond	Respond	Respond
Air Tanker(s)			Respond 1
SEAT(s)			Respond 1
Air Attack			Respond
DOZER W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Extensive Urban Interface.
Special areas-Norbeck Wildlife Preserve Units and Jewel Cave NM.
Practice MIST tactics on NPS Lands, dozer use, off-road travel, retardant use must be authorized by Park Superintendent

Initial Attack Communications Plan

CHANNEL (GRP 4)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-FOREST NET					*Alternate Command-Como to GPC
2-SZ BEAR					*Command-Como to GPC
3-SZ ELK					*Command-Como to GPC
4-SZ CICERO					*Command-Como to GPC
**-6-SZ PORTABLE					*Command-Como to GPC
***-8-SOA					Tactical
9-VFIRE 21					Tactical-Structure Protection
10-VFIRE 22					Tactical-Meade and Pennington Counties
11-VFIRE 23					Tactical-Custer and Fall River Counties
12-EM CICERO PEAK					Command-Como to Custer Co Sheriff Office
14-A/G 24					Air to Ground - Primary
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
14(GRP 5) A/G 35					Air to Ground - Alternate
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.
stored at Hell Canyon fire cache * stored at BKF Cache BOTH need to be ordered through GPC for the incident

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Deerfield**
DUTY OFFICER CONTACT
Primary: **CZ FS D.O**

Representative Raws: **Whitetail 392607 (Y Model)**

Secondary: **South Dakota State Duty Officer**

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 23	**RESPONSE LEVEL 2 ERC = 24 - 37**	**RESPONSE LEVEL 3 ERC =38 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 1	Respond 2
ICT3			Notify 1
IA Helicopter		Respond	Respond
Air Tanker(s)			Respond 1
SEAT(s)			Respond 1
Air Attack			Respond
Dozer W/HEQB			Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Special Area-RNA 2N 2E S 26,27,34,35 near Taylor Spring. North Fork Castle Creek RNA.
Retardant and heavy equipment use restricted.
Utilize MIST standards within North Fork Castle Creek RNA. 2N 2E Sec. 26, 27, 34, 35 &
1 N 2 E Sec. 2

Initial Attack Communications Plan

CHANNEL (GRP 3)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
*5-CZ SETH					*Command-Como with GPC
8-VFIRE 21					Tac 1
9-VFIRE 22					Tac 2
10-VFIRE 23					Tac for Structure Protection Group
11-BKF FIRE TAC					Tactical
13-A/G 31					Air to Ground - Primary
14-A/G 25					Air to Ground - Alternate
15-VMED 28					A/G AIR AMBULANCE
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Exemption Area** Representative RAWS: **392506 NEMO (Model Y)**

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer

Secondary Duty Officer: NZ FS D.O

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 – 19	Response Level II ERC = 20 - 34	Response Level III ERC = 35 +
Engine(s) – Type 3, 4, 5 or 6	Respond1	Respond 3	Respond 5
ICT-4	Respond 1	Respond 1	Respond 1
ICT-3			Notify
Squad (6 personnel)		Respond1	Respond 1
Water Tenders		Respond1	Respond 1
IA Helicopter		Respond	Respond
SEAT(s)		Respond	Respond
Air Attack		Respond	Respond
Dozers W/ HEQB			Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatch. VFD and Municipal engines can be considered part of response for Engines and Tenders in this Response Zone.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Name of Concern Area	Description of Concern Area
Exemption Area	Any start w/in a 2-mile radius of the Lead Exemption Area due to population density. This area includes Lead, Deadwood, Central City, Maitland, Mt. Roosevelt, west end of Boulder Canyon, Strawberry Hill, Brownsville, Englewood, Deer Mt., and Terry Peak.
Spearfish Canyon	The Response Zone's west boundary is Highway 14A. Any start within 1 mile of 14A within this response zone.
BLM Land	Notify BLM DO of any fires on BLM or within 1 mile.
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present.
Structure Protection Specialist	Structural Protection Specialist is automatically ordered when the IAIC orders Type 1 or Type II engines for structure protection, no matter what planning level.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
NZ Terry					*†Command - Como with GPC primary
NZ Custer					*†Command - Como with GPC alternate
Black Hills Fire 1 - Digital					*†Command - Como with GPC alternate
VFIRE 22					Tac 1 – Scene of Action
VFIRE 23					Tac 2 – Tactical Operations
VFIRE 21					Tac 3 – Structure Protection
R2 FIRE TAC					Tactical
A/G 35					Air to Ground - Primary
A/G 25					Air to Ground -Alternate
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

†If USFS or NPS resources are responding, Analog is preferred for Command.

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Central Foothills** Representative RAWS: 392608 Rapid City-West

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer

Secondary Duty Officer: If within 1 mile of federal ownership, contact appropriate federal duty officer

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 - 21	Response Level II ERC = 22 - 43	Response Level III ERC = 44 +
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 3	Respond 5
ICT4		Respond	Respond 1
ICT3			Notify
Squad (6 Personnel)		Respond	Respond 1
Water Tenders		Respond 1	Respond 1
IA Helicopter		Respond	Respond
SEAT(s)		Respond	Respond
Air Attack		Respond	Respond
Dozers W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatch. VFD and Municipal engines can be considered part of response for Engines and Tenders in this Response Zone.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Instructions/Concern	
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present.
Structure Protection Specialist	Structural Protection Specialist is automatically ordered when the IAIC orders Type 1 or Type II engines for structure protection, no matter what planning level.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.
Ft Meade Recreation Area	Area of Critical Environmental concern - Heavy Equipment and Retardant use must be authorized by SD BLM Field Manager Chip Kimball Cell 605-631-9507 office 605-892-7001
Camp Mniluzahan	GPC should confirm with Pennington County Dispatch that the IC or law enforcement has declared the scene safe for responders. Responders confirm safety via Tac channel before entering the encampment.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
NZ - TERRY					*†Command, North Zone
CZ - SETH					*†Command, Central Zone
CZ - RUSHMORE					*†Command, Central Zone
Black Hills Fire 1-Digital					*Alternate Command, North Zone
Black Hills Fire 2-Digital					*Alternate Command, Central Zone
VFIRE 22					Tac 1- Scene of Action
VFIRE23					Tac 2-Tactical Operations
VFIRE 21					Tac 3- Structure Protection
R2 FIRE TAC					Tactical
A/G 35					Air to Ground- N of Black Hawk
A/G 25					Air to Ground- Black Hawk to Hermosa
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.
†If USFS or NPS resources are responding, Analog is preferred for Command.

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Fall River** Representative RAWS: **395105 Red Canyon (Y Model)**

DUTY OFFICER CONTACT
Primary: Fall River District Duty Officer
Secondary: Nebraska National Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-21	**RESPONSE LEVEL 2 BI = 22-28**	**RESPONSE LEVEL 3 BI = 29+**
Engine(s) – Type 3, 4, 5 or 6	Respond 1	Respond 2	Respond 3
ICT4	Respond 1	Respond 1	Respond 1
SEAT(s)			Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Igloo	The former Black Hills Army Depot contains hazardous areas which need to be avoided by suppression resources. Local district and VFD resources are familiar with these areas. Resources responding from adjacent units need to report to the IC for a complete safety briefing.
Railroad Buttes	Military Aircraft from Ellsworth AFB conduct training missions in this area.
VFD'S	VFD units may be considered as part of the response if local county dispatch center confirms they are responding.
Communications	IC may designate an alternate command repeater if radio coverage of other repeaters is inadequate.

Initial Attack Communications Plan

CHANNEL (GRP 3)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-WEST DIRECT					*Command, Hot Springs area
2-WOLF REPEATER					*Command, South side
3-WEST WILLOW REPEATER					*Command, East end
4-COYOTE REPEATER					*Command, West end
6-VMED 28					Medical Evacuation
8-NBF TAC					Tactical
9-VFIRE 22					Tactical
10-VFIRE 23					Tactical
14-A/G 25					Air to Ground Primary
13-(Grp3) A/G 35					Air to Ground Secondary

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Ft. Pierre** Representative RAWS: **393801 Ft. Pierre (Y Model)**

DUTY OFFICER CONTACT

Primary: Ft. Pierre District Duty Officer

Secondary: Nebraska National Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-20	**RESPONSE LEVEL 2 BI = 21-30**	**RESPONSE LEVEL 3 BI = 31+**
Engine(s) – Type 3,4, or 6	Respond 1	Respond 2	Respond 3
ICT4	Respond 1	Respond 1	Respond 1
ICT3			Notify 1
SEAT(s) – **Confirm order with IC**			Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

VFD'S	VFD units may be considered as part of the initial attack response if local county dispatch center confirms that they are responding.
Army Corps of Engineers	Notify the State of South Dakota Duty Officer if the point of origin is on Corps of Engineers jurisdiction.
Communications	IC may designate alternate frequencies if radio communications are not adequate.

Initial Attack Communications Plan

CHANNEL (GRP 8)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-EAST DIRECT					*Command
2-FT PIERRE REPEATER					*Command
4-A/G 31					Air to Ground Primary
5-A/G 24					Air to Ground Secondary
8-NBF TAC					Tactical
9-VFIRE 21					Tactical
10-VFIRE 22					Tactical

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: March 26, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Lakes** Representative Raws: **Baker Park 392606 (Y Model)**

DUTY OFFICER CONTACT
Primary: CZ FS D.O
Secondary: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 28	**RESPONSE LEVEL 2 ERC = 29 - 41**	**RESPONSE LEVEL 3 ERC = 42 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT3		Notify	Notify
IA Helicopter	Respond	Respond	Respond
Air Tanker(s)			Respond 1
SEAT(s)			Respond 1
Air Attack			Respond
Dozer W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Extensive Urban Interface

Special Area – Canyon City RNA
Retardant and heavy equipment use restricted. Utilize MIST standards within Canyon City RNA
1N 4E Sec 1, 2, 3 & 2N 4E 34, 35, 36

Sheridan Lake Road – Closure March 1 – November 19, 2021. Hwy 385/Sheridan Lake Rd. Intersection east to Spring Creek Trailhead along Sheridan Lake Rd. (Approx. 2-3 miles of closure) Both locations will have barricades

Oftedal Construction- **Normal Hours of Operation (0700-1700)**
GPC will Notify and Coordinate with Project Manager and/or Project Superintendent of any emergency response within the Sheridan Lake Rd Area. This includes the need to gain access beyond the barricades or a working incident in the area. Request a designated road guard/flagger at both barricade closures to prevent delayed response. Will only provide flaggers during normal hours of operation. Inform ALL resources (ground & aviation) of any potential blasting operations.

Oftedal Construction- **After Hours of Operation (1700-0700)**
GPC will Contact Project Manager and/or Project Superintendent. Provide courtesy notification of access needs and verify safety issues/concerns within closure area. Relay any known safety considerations to responding resources and instruct resources to gain access by driving around barricades as there will not be designated flaggers outside of normal hours of operation. At no time should the Sheridan Lake Rd be completely impassible, even within closure area.

Oftedal Contacts:
Project Manager- Jeremiah Assman 307-277-4880
Project Superintendent- Bret Hough 307-315-2215

Air Attack must be ordered with 3 or more aircraft.

Initial Attack Communications Plan

CHANNEL (GRP 3)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
*5-CZ SETH					*Command-Como with GPC
8-VFIRE 21					Tac 1
9-VFIRE 22					Tac 2
10-VFIRE 23					Tac for Structure Protection Group
11-BKF FIRE TAC					Tactical
13-A/G 31					Air to Ground - Primary
14-A/G 25					Air to Ground - Alternate
15-VMED28					A/G AIR AMBULANCE
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **LIMESTONE** Representative Raws: **392506 Nemo (Y Model)**

DUTY OFFICER CONTACT
Primary: SZ FS D.O
Secondary: CZ FS D.O

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 19	**RESPONSE LEVEL 2 ERC = 20 - 35**	**RESPONSE LEVEL 3 ERC = 36 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 2
ICT4		Notify	Respond 1
IA Helicopter	Respond	Respond	Respond
Air Attack			Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Mutual Aid with Weston County
If Point of Origin is on Private Land notify the State DO.
BLM Land Notify HPD DO of any fires on BLM or within 1 mile to BLM Lands

Initial Attack Communications Plan

CHANNEL (GRP 5)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-FOREST NET					*Alternate Command-Como to GPC
2-SZ BEAR					*Command-Como to GPC
3-SZ ELK					*Command-Como to GPC
**6- SZ PORTABLE					*Command-Como to GPC
8-VFIRE 21					Tactical-Structure Protection
9-VFIRE 22					Tactical-Meade and Pennington Counties
10-VFIRE 23					Tactical-Custer and Fall River Counties
11-WESTON CO REPEATER					Command-WEX Repeat-Como to WEX SO
13-A/G 24					Air to Ground-Primary
14-A/G 35					Air to Ground-Alternate
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
16-AIR GUARD					Emergency Air Traffic
2 (Grp1) NZ WARREN					Alternate Command-Como to GPC
7-(Grp13) WEX TAC					Tactical

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.
** Stored at Hell Canyon Fire Cache ***Stored at the BKF Fire Cache – BOTH need to be ordered through GPC for the incident

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **McKelvie** Representative RAWS: **252402 BESSEY (Y Model)**

DUTY OFFICER CONTACT
Primary: Bessey District Duty Officer
Secondary: Nebraska Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-19	**RESPONSE LEVEL 2 BI = 20-27**	**RESPONSE LEVEL 3 BI = 28+**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 1 from Bessey Respond 1 from Valentine National Wildlife Refuge	Respond 1 from Bessey Respond 1 from Valentine National Wildlife Refuge
Engine(s) – Type 7		Respond 1 from Bessey	Respond 1 from Bessey
ICT4	Respond 1	Respond 1	Respond 1
ICT3			Notify
SEAT(s)		Respond 1	Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Remote location and limited access - personnel equipped to dig handline required.

VFD units may be considered as part of the response if local county dispatch center confirms they are responding.

Initial Attack Communications Plan

CHANNEL (GRP 12)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
10-NENZEL REPEATER					***PRIMARY** Command-Commo with GPC
3-NBF TACTICAL					Tactical
11-A/G 25					Air to Ground Primary
8-A/G 5					Air to Ground Secondary
13-VTAC 11					Tactical
14-VTAC 12					Tactical

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Minnekahta** Representative RAWS: 395105 Red Canyon (Y MODEL)

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer

Secondary Duty Officer: SZ FS D.O

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 - 24	Response Level II ERC = 25 - 44	Response Level III ERC = 45+
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT-4		Respond 1	Respond 1
ICT-3			Notify
Crews			Respond 1
IA Helicopter	Respond	Respond	Respond
SEAT(s)		Respond	Respond 1
Air Attack		Respond	Respond
Dozers W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatch. VFD and Municipal engines can be considered part of response for Engines and Tenders in this Response Zone.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Instructions/Concern	
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present. Ensure that Air Attack is ordered if aircraft will be mixed.
Structure Protection Specialist	Structure Protection Specialist is automatically ordered when the IAIC orders Type 1 or Type II engines for structure protection, no matter what planning level.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
FS SZ – BALL					*†Cmd.-Commo with GPC, South end
FS SZ – CICERO					*†Cmd.-Commo with GPC, North end
Forest Net					*Cmd.-Commo with GPC, Alternate
Black Hills Fire 3 - Digital					*Cmd.-Commo with GPC, Alternate
VFIRE 22					Tac 1 – Scene of Action
VFIRE 23					Tac 2 – Tactical Operations
VFIRE 21					Tac 3 – Structure Protection
BKF FIRE TAC					Tactical - Alternate
R2 FIRE TAC					Tactical - Alternate
A/G 35					Air to Ground – Alternate
A/G 24					Air to Ground – Primary
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

†If USFS or NPS resources are responding, Analog is required for Command.

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Nemo** Representative RAWS: **480605 Nemo (Y Model)**

DUTY OFFICER CONTACT:
Primary Duty Officer: NZ FS D.O
Secondary Duty Officer: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	RESPONSE LEVEL 1 ERC = 0 – 19	**RESPONSE LEVEL 2 ERC = 20 - 35**	**RESPONSE LEVEL 3 ERC = 36 +**
Engine(s) – Type 3, 4 or 6	**Respond 1	Respond 1/** Respond	Respond 2
IA Module	**Respond 1	**Respond 1	Respond 1
ICT3			Notify
IA Helicopter		Respond	Respond
SEAT(s)		Respond	Respond
Air Tanker(s)		Respond	Respond
Air Attack		Respond	Respond
	**Send only one unit - Whichever is closest	**Send only one unit - Whichever is closest	

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Areas of Special Concern

Name of Concern Area	Description of Concern Area
Exemption Area (WUI Issues)	Any start w/in a 2-mile radius of the Lead Exemption Area
Beaver Park (Access Issues)	Beginning @ Sturgis, SD south to FS Rd 169; east from Vanocker Canyon Rd to I 90 Any start w/in this "general" descriptive area will have delayed response due to access issues. Consider Aircraft, ATV/UTV use.
Spearfish Canyon (WUI Issues)	From the mouth of the canyon, beginning @ Spearfish, SD along U.S. Highway 14A to Hanna. Heavy fuel loading from savoy to Cheyenne Crossing from Tornado damage.
Rural SD Communities (WUI Issues)	Rochford, Nahant, Dumont, Brownsville, Galena, Boulder Park, Boulder Canyon Road, Boxelder CCC, Girl Scout Camp, Merritt, and Novak – Any start w/in a ½ mile radius of these rural communities of South Dakota
Custer Peak (Health and Safety Issues)	**HEAVY BEETLE KILL AREA** - Any start within a 1.5 mile radius of Custer Peak Lookout Tower. Advise Duty Officer!!

Special Instructions for Dispatchers

- Have all responding units take radio traffic to North Zone.

Initial Attack Communications Plan

CHANNEL (GRP 2)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
3-NZ TERRY					*Command – Como to GPC
7-VFIRE 21					Tac 1
8-VFIRE 22					Tac 2
14-A/G 35					SD - Air to Ground – Primary
14-A/G 25 (Group 3)					Air to Ground – Secondary
9-VFIRE 23					Tactical
13- BKF FIRE TAC					Tactical
15-VMED28					A/G AIR AMBULANCE
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Northern Foothills** Representative RAWS: **392506 Nemo (Y Model)**

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer
Secondary Duty Officer: NZ FS D.O

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 - 19	Response Level II ERC = 20 - 35	Response Level III ERC = 36 +
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 3	Respond 5
ICT4	Respond 1	Respond 1	Respond 1
ICT3		Notify 1	Notify 1
Crews/Squads (6 Personnel)		Respond 1 Squad	Respond 1 Crew
STEN or TFLD			Respond 1
Water Tenders		Respond 1	Respond 2
IA Helicopter		Respond	Respond
SEAT(s)		Respond 1	Respond 1
Air Tanker(s)		Respond	Respond
Air Attack		Respond	Respond
Dozers W/ HEQB			Respond 1
STPS			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatch. VFD and Municipal engines can be considered part of response for Engines and Tenders in this Response Zone.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Instructions/Concern	
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present.
Structure Protection Specialist	Structural Protection Specialist is automatically ordered when the IAIC orders Type 1 or Type II engines for structure protection, no matter what planning level.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
NZ Terry					*†Command - Como with GPC primary
NZ Custer					*†Command - Como with GPC alternate
NZ Warren					*†Command - Como with GPC alternate
Black Hills Fire 1 - Digital					*†Command - Como with GPC alternate
VFIRE 22					Tac 1 – Scene of Action
VFIRE 23					Tac 2 – Tactical Operations
VFIRE 21					Tac 3 – Structure Protection
R2 FIRE TAC					Tactical
VMED 28					A/G AIR AMBULANCE
A/G 25					Air to Ground
A/G 31					Air to Ground
A/G 35					Air to Ground

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

†If USFS or NPS resources are responding, Analog is preferred for Command.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **PILGER** Representative Raws: **395105 Red Canyon (Y Model)**

DUTY OFFICER CONTACT
Primary: SZ FS D.O
Secondary: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 24	**RESPONSE LEVEL 2 ERC = 25 - 44**	**RESPONSE LEVEL 3 ERC = 45 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 2
Dozer W/HEQB			Respond 1
ICT4		Respond 1	Respond 1
ICT3		Notify	Notify
IA Helicopter	Respond	Respond	Respond
Air Tanker(s)			Respond 1
SEAT(s)		Respond 1	Respond 1
Air Attack		Respond	Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Darrow / Freezeout / Triangle Uranium Mines – see map and fact sheet. Consider NOT taking any suppression action due to high levels of radionuclides in the soils and contaminated water in the area.

Area of Critical Environmental concern – Fossil Cycad National Monument - Heavy equipment use must be authorized by SD BLM Field Manager – Chip Kimball, Cell 605-631-9507 Office 605-892-7001

Retardant and dozer use restricted in Craven Canyon.

Initial Attack Communications Plan

CHANNEL (GRP 4)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-FOREST NET					*Alternate Command-Como to GPC
2-SZ BEAR					*Command-Como to GPC
3-SZ ELK					*Command-Como to GPC
4-SZ CICERO					*Command-Como to GPC
5-SZ BALL					*Command-Como to GPC
**6-SZ PORTABLE					*Command-Como to GPC
***8-SOA					Tactical
9-VFIRE 21					Tactical – Structure Protection
10-VFIRE 22					Tactical – Meade & Pennington Counties
11-VFIRE 23					Tactical – Custer & Fall River Counties
14-A/G 24					Air to Ground – Primary
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
14-(GRP 5)-A/G 35					Air to Ground – Alternate
16-AIR GUARD					Emergency Air Traffic

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

stored at Hell Canyon fire cache * stored at BKF Cache BOTH need to be ordered through GPC for the incident

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Pine Ridge** Representative Raws: **250203 Kings Canyon (Y Model)**

DUTY OFFICER CONTACT
Primary: Pine Ridge District Duty Officer
Secondary: Nebraska National Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-21	**RESPONSE LEVEL 2 BI = 22-30**	**RESPONSE LEVEL 3 BI = 31+**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 2
Type 2 Crews		Notify 1	Notify 1
ICT4	Respond 1	Respond 1	Respond 1
ICT3			Notify 1
SEAT(s)			Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Soldier Creek Wilderness	Soldier Creek Wilderness will have all fires suppressed. Resources responding from adjacent units need to report to the IC for a complete fire and safety briefing.
Soldier Creek Wilderness & Oglala National Grassland	Military aircraft from Ellsworth AFB conduct training missions in the area.
VFD'S	VFD units will be considered as part of the response when Chadron Dispatch confirms they are responding.
Communications	IC may designate an alternate command repeater if radio coverage of other repeaters is inadequate.
Water Sources	Ponds located in T.31N., R.51W., Sec. 19 are used for uranium mining- not to be used.

Initial Attack Communications Plan

CHANNEL (GRP 2)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-WEST DIRECT					*Command
2-WOLF REPEATER					*Command
3-NE TAC					Tactical
11-VFIRE 21					Tactical
12-VFIRE 22					Tactical
13-A/G 25					Air to Ground Primary
14-A/G 5					Air to Ground Secondary
15-VMED28					Medical Evacuation

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: February 02, 2021

Great Plains Interagency
Dispatch Center

PREPLANNED DISPATCH
CARD

I.A. Response Zone: **Southern Foothills** Representative RAWS: 393507 Custer State Park (Y)

DUTY OFFICER CONTACT:
Primary Duty Officer: South Dakota State Duty Officer
Secondary Duty Officer: SZ FS D.O

Resources	DISPATCH ACTION BASED ON ENERGY RELEASE COMPONENT		
	Response Level I ERC = 0 - 24	Response Level II ERC = 25 - 44	Response Level III ERC = 45 +
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT4		Respond 1	Respond 1
Type 2 IA Crew			Respond 1
IA Helicopter		Respond	Respond
SEAT(s)			Respond 1
Air Attack			Respond
Dozers W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers / Areas of Special Concern

Instructions/Concern	
Aviation resources	Confirm with Duty Officer or Initial Attack IC before mixing aircraft on incident if ATGS or Lead is not present.
Multiple Starts/Complex Fires	Confirm with Duty Officer before punching-out the appropriate planning level response on second or third starts in the vicinity of the first incident.

Initial Attack Communications Plan

CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
SZ - CICERO					*Command, South Zone
Black Hills Fire 3-Digital					*Alternate Command, South Zone
VFIRE 23					Tac 1 – Tactical Operations
VFIRE 22					Tac 2 – Tactical Operations
VFIRE 21					Tac 3 – Tactical Operations
A/G 24					Air to Ground-Primary
A/G 35					Air to Ground – Alternate
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.

†If USFS or NPS resources are responding, Analog is preferred for Command.

Revised: February 02, 2021

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **TEPEE** Representative Raws: **3935105 Red Canyon (Y Model)**

DUTY OFFICER CONTACT
Primary: SZ FS D.O
Secondary: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 ERC = 0 - 24	**RESPONSE LEVEL 2 ERC = 25 - 44**	**RESPONSE LEVEL 3 ERC = 45 +**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 2
ICT4		Respond 1	Respond 1
ICT3		Notify	Notify
IA Helicopter	Respond	Respond	Respond
Air Tanker(s)			Respond 1
SEAT(s)		Respond 1	Respond 1
Air Attack		Respond	Respond
DOZER W/HEQB			Respond 1

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

MIST standards within the Fanny/Boles RNA. T3S R1E S 6, 7 South of Fanny Peak.
Special area – Jewel Cave NM.
After 1900 response level decrease one lower than daytime response.
During hours 1730-0900: Contact duty officer to determine responding resources.

Initial Attack Communications Plan

CHANNEL (GRP 5)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-FOREST NET					*Alternate Command-Como with GPC
2-SZ BEAR					*Command-Como to GPC
3-SZ ELK					*Command-Como to GPC
4-SZ CICERO					*Command-Como to GPC
5-SZ BALL					*Command-Como to GPC
**6-SZ PORTABLE					*Command-Como to GPC
8-VFIRE 21					Tactical – Structure Protection
9-VFIRE 22					Tactical – Meade & Pennington Counties
10-VFIRE 23					Tactical – Custer and Fall River Counties
11-Weston EAST CO Repeater					Cmd-WEX CO Rrp Como to WEX CO SO
13-A/G 24					Air to Ground – Primary
14-A/G 35					Air to Ground – Alternate
15-VMED28					A/G AIR AMBULANCE W/I GPC ZONE
16-AIR GUARD					Emergency Air Traffic
7-(grp13) WEX TAC					Tactical

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire.
** Stored at Hell Canyon fire cache ***Stored at BKF Fire Cache-BOTH need to be ordered through GPC for the incident

Revised: February 02, 2021 Area 15

Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **Wall** Representative Raws: **392602 Pinnacles (Y Model)**

DUTY OFFICER CONTACT
Primary: Wall District Duty Officer
Secondary: Nebraska Forest Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-20	**RESPONSE LEVEL 2 BI = 21-29**	**RESPONSE LEVEL 3 BI = 30+**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
ICT4	Respond 1	Respond 1	Respond 1
ICT3			Notify 1
SEAT(s)			Respond 2

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Indian Creek	Military Aircraft from Ellsworth AFB conduct training missions in this area. Indian Creek is a proposed wilderness area.
VFD'S	VFD units may be considered as part of the response if local county dispatch center confirms they are responding.
Communications	IC may designate an alternate command repeater if radio coverage of other repeaters is inadequate.

Initial Attack Communications Plan

CHANNEL (GRP 7)	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
1-WALL REPEATER					*Command
2-EAST WILLOW REPEATER					*Command
3-WEST WILLOW					*Command
4-EAST DIRECT					*Command
9-NE TAC					Tactical
10-R2 FIRE TAC					Tactical
11-FIRE GROUND					Pennington County Tactical
12-VFIRE 22					Tactical
13-VFIRE 23					Tactical
15-A/G 25					Air to Ground Primary
15-A/G 31					Air to Ground Secondary

*IC or GPC may designate Command Channel or request a Portable Repeater for command. This will be based on location of fire.

Revised: February02, 2021

Northern Great Plains Interagency Dispatch Center

PREPLANNED DISPATCH CARD

I.A. Response Zone: **WIND CAVE** Representative RAWS: **WICA Elk Mountain 393505 (Y Model)**

DUTY OFFICER CONTACT
Primary: NGP Duty Officer
Secondary: South Dakota State Duty Officer

Resources	DISPATCH ACTION BASED ON RESPONSE LEVEL		
	RESPONSE LEVEL 1 BI = 0-23	**RESPONSE LEVEL 2 BI = 24-31**	**RESPONSE LEVEL 3 BI = 32+**
Engine(s) – Type 3, 4 or 6	Respond 1	Respond 2	Respond 3
Squad/Module			Respond 1
ICT4	Respond	Respond	
ICT3			Respond
Water Tender			Respond 1
IA Helicopter	Respond	Respond	Respond
Air Tanker(s)			Respond
SEAT(S)			Respond
Air Attack			Respond

Respond	Resources will proceed directly to the incident at the direction of the dispatchers.
Notify	Notification will be the responsibility of the Duty Officer.

Special Instructions for Dispatchers/Areas of Special Concern

Practice MIST tactics on NPS land. Dozer use, off-road driving, and retardant use must be authorized by Park Superintendent.
Type 3 Water Tender available at Wind Cave.
NPS personnel use radio Group 6
WICA Addition – Location South of current Wind Cave Boundary – General Keyhole area

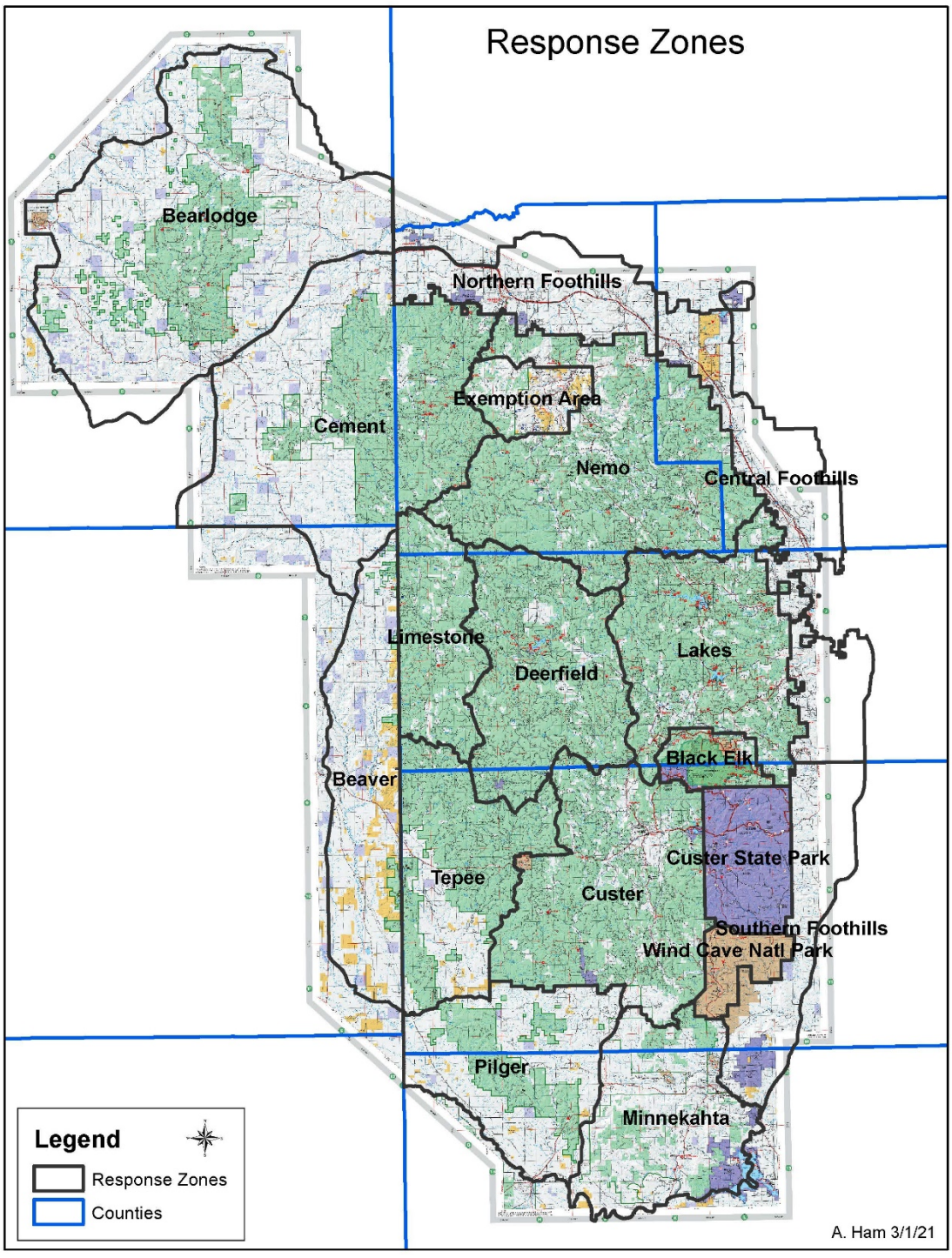
Initial Attack Communications Plan

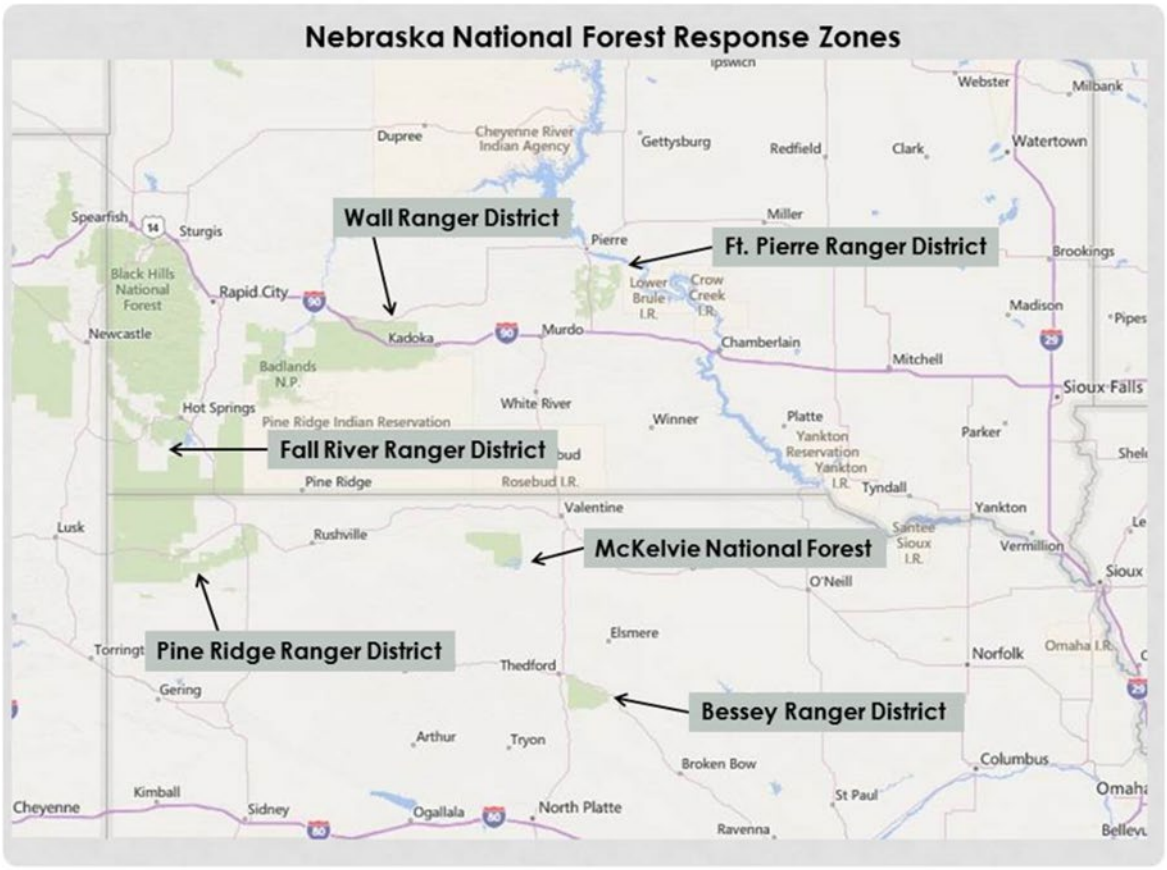
CHANNEL	RECEIVE	CG	TRANSMIT	CG	DESCRIPTION
SZ - Cicero					*Command: Communications with GPC
VFIRE 23					Tactical - Primary
VFIRE 22					Tactical - Secondary
VFIRE 21					Tactical - Structure Protection
WICA Direct					Tactical – Digital to Park HQ
WICA Rankin Repeater					Tactical – Digital to Park HQ
WICA Elk Mtn Repeater					Tactical – Digital to Park HQ
A/G 24					Air to Ground – Primary
A/G 35					Air to Ground – Alternate
VMED 28					A/G AIR AMBULANCE

*IC or GPC may designate alternate repeater or request a Portable Repeater for command. This will be based on location of fire

Revised: February 02, 2021,

G. GPC Initial Attack Area Fire Response Zones




Nebraska National Forest Response Zones
Wall Ranger District
Ft. Pierre Ranger District
Fall River Ranger District
McKelvie National Forest
Pine Ridge Ranger District
Bessey Ranger District
Webster
Milbank
Dupree
Cheyenne River Indian Agency
Gettysburg
Redfield
Clark
Watertown
Spearfish
Sturgis
Miller
Pierre
Brookings
Black Hills National Forest
Rapid City
Lower Brule I.R.
Crow Creek I.R.
Madison
Newcastle
Kadoka
Murdo
Chamberlain
Mitchell
Badlands N.P.
Sioux Falls
Hot Springs
White River
Winner
Platte
Parker
Pine Ridge Indian Reservation
Yankton Reservation
Yankton I.R.
Tyndall
Pine Ridge
Rosebud I.R.
Valentine
Yankton
Lusk
Rushville
Santee Sioux I.R.
Vermillion
O'Neill
Sioux
Elsmere
Norfolk
Omaha I.R.
Thedford
Gering
Arthur
Tryon
Broken Bow
Columbus
Kimball
St Paul
Cheyenne
Sidney
Ogallala
North Platte
Ravenna

APPENDIX G-PRESCRIBED BURN APPROVAL PLAN

Prescribed Burn Approval Act of 2016 (USFS)

Introduction

Beginning in 2016, prescribed fires on National Forest System (NFS) lands require additional approval at the Regional Forester level if the National Fire Danger Rating System (NFDRS) is indicating an extreme fire danger level (Prescribed Bum Approval Act of 2016 and Associated Interim Directive, File Code 5140, April 7, 2017).

This law prohibits the Secretary of Agriculture, acting through the Chief of the U.S. department of Agriculture's Forest Service, from authorizing a prescribed burn on National Forest System (NFS) lands if, for the county or contiguous county in which the land to be treated is located, the National Fire Danger Rating System (NFDRS) is indicating an extreme fire danger level. The Secretary may authorize the prescribed fire to be conducted if coordination with applicable state government and local fire officials has occurred. See USDA Forest Service Regional Office Prescribed Fire Authorization Worksheet at the end of this appendix.

This Interagency Fire Danger Operating plan outlines the analysis process used for the determination of the adjective fire danger rating to be used in the fulfillment of this law. This will apply to all counties covered within this Fire Danger Operating Plan (FDOP). For contiguous counties located outside of this FDOP planning area, The Forest Service will coordinate with adjoining third tier dispatch centers to access adjective ratings for those surrounding FDRA's. If a FDOP plan is not developed or utilized for the contiguous county(s), the Forest Service will use the adjective rating from WIMS to determine the adjective rating for the contiguous county(s). If any portion of those county(s) are reporting extreme adjective fire danger levels, the law applies and approval to ignite is elevated to the Regional Forester level.

A. Adjective Fire Danger Ratings

In 1974, the Forest Service, Bureau of Land Management and state forestry organizations established a standard adjective description for five levels of fire-danger for use in public information releases and fire prevention signing. For this purpose, only fire danger is expressed using the adjective levels and color codes are described below.

The Adjective Fire Danger Rating will be used by agency personnel to inform the public of the current level of fire danger associated with a specific FDRA. The amount of interaction will depend on the magnitude of the adjective fire danger.

B. Adjective Fire Danger Rating Determination

Great Plains Dispatch will determine the Adjective Fire Danger Rating. The actual determination of the daily adjective rating is based on the current or forecasted value of

a selected staffing index (i.e. ERC and ignition component [IC]) using the example tables below.

Fire Danger Rating and Color Code	DESCRIPTION
Low (L) **(Green)**	Fuels do not ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.
Moderate (M) (Blue)	Fires can start from most accidental causes but, with the exception of lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur, but is not persistent. Fires are not likely to become serious and control is relatively easy.
High (H) **(Yellow)**	All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.
Very High (VH) **(Orange)**	Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.
Extreme (E) **(Red)**	Fires start quickly, spread rapidly, and burn intensely. All fires are potentially serious. Development into high intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.

A. USFS Regional Office Prescribed Fire Authorization Worksheet

USDA Forest Service
Regional Office Prescribed Fire Authorization Worksheet

Region:		
Date:		
Submitted by:		
Telephone/Email:		
Approval Required For:	**National Preparedness Level 4 or 5:** ☐	**NFDRS is "Extreme":** ☐

Forest	**Burn Unit ID**	**Unit Acres**	**Start/End Date**	**Personnel/Crews/Equipment To Implement Burn**	**Forecast NFDRS Rating**
TOTALS					

Actual and Forecasted Fire Business, Fire Weather and Fire Behavior Conditions:

Values and Risk/Benefit Assessment:

Coordination with Fed/State/Local Partners, Mitigation Measures, & Other Precautions:

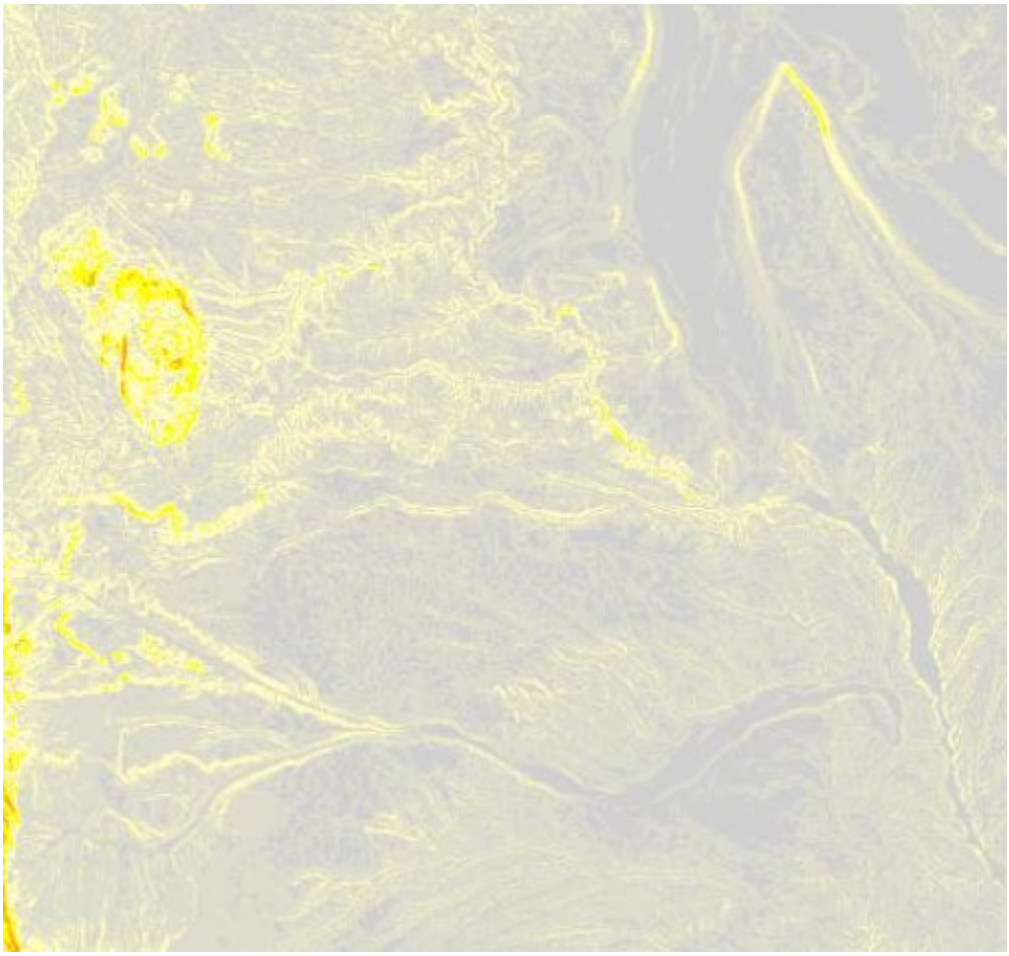
Regional Office Use Only:

FAM Recommendation	**Approve:** ☐	**Deny:** ☐
FAM Notes:		
Regional Forester (or Designee) Decision:	**Approve:** ☐	**Deny:** ☐
Decision Rationale:		
Date/Time:	**Signature:**	

Note: Please use the following link to report all authorizations granted by the Regional Office to fulfil mandatory reporting requirements -

USDA FOREST SERVICE REGIONAL-LEVEL PRESCRIBED FIRE AUTHORIZATIONS

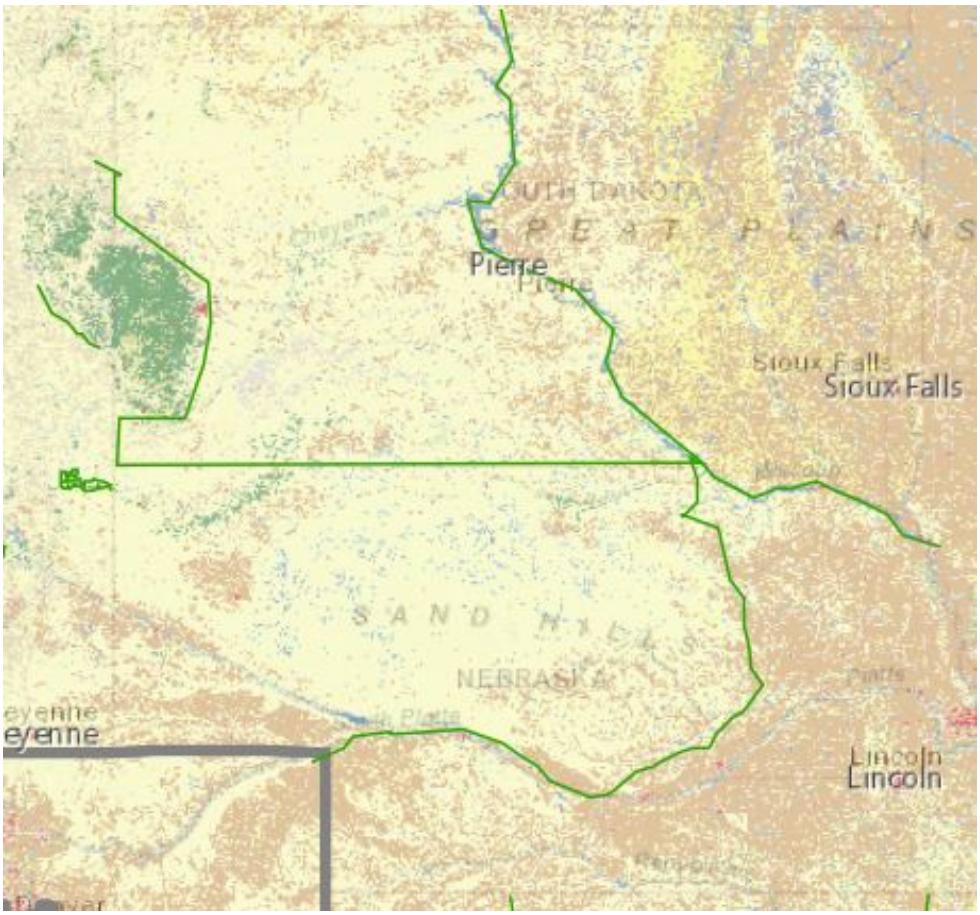
APPENDIX H-TOPOGRAPHY



Terrain: Slope Map

- Flat
- Nearly level
- Gently level
- Gently sloping
- Strongly sloping
- Gently steep
- Moderately Steep
- Steep
- Very steep

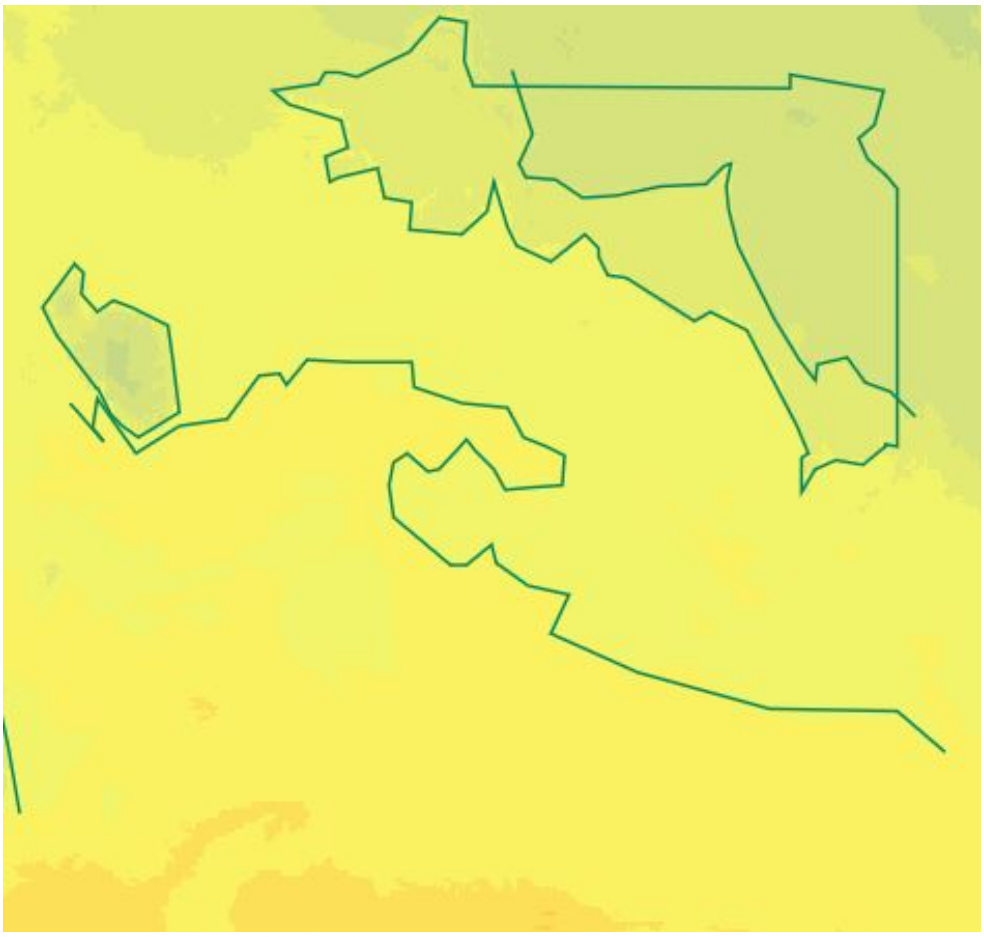
APPENDIX I-VEGETATION



USA NLCD Land Cover 2011

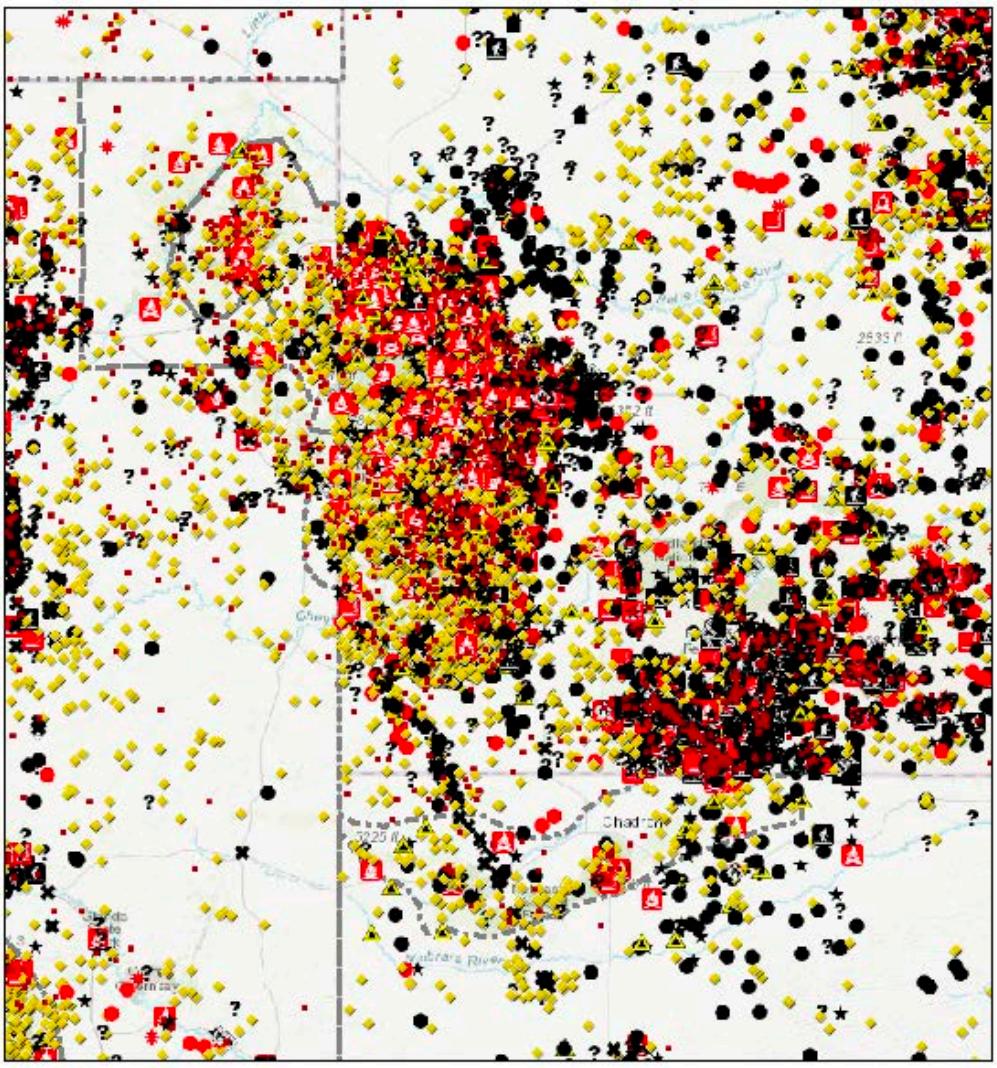
- Open Water
- Perennial Snow/Ice
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Dwarf Scrub
- Shrub/Scrub
- Grassland/Herbaceous
- Sedge/Herbaceous
- Lichens
- Moss
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

APPENDIX J-CLIMATE



APPENDIX K-FIRE OCCURRENCE

Fire Analysis



January 23, 2020

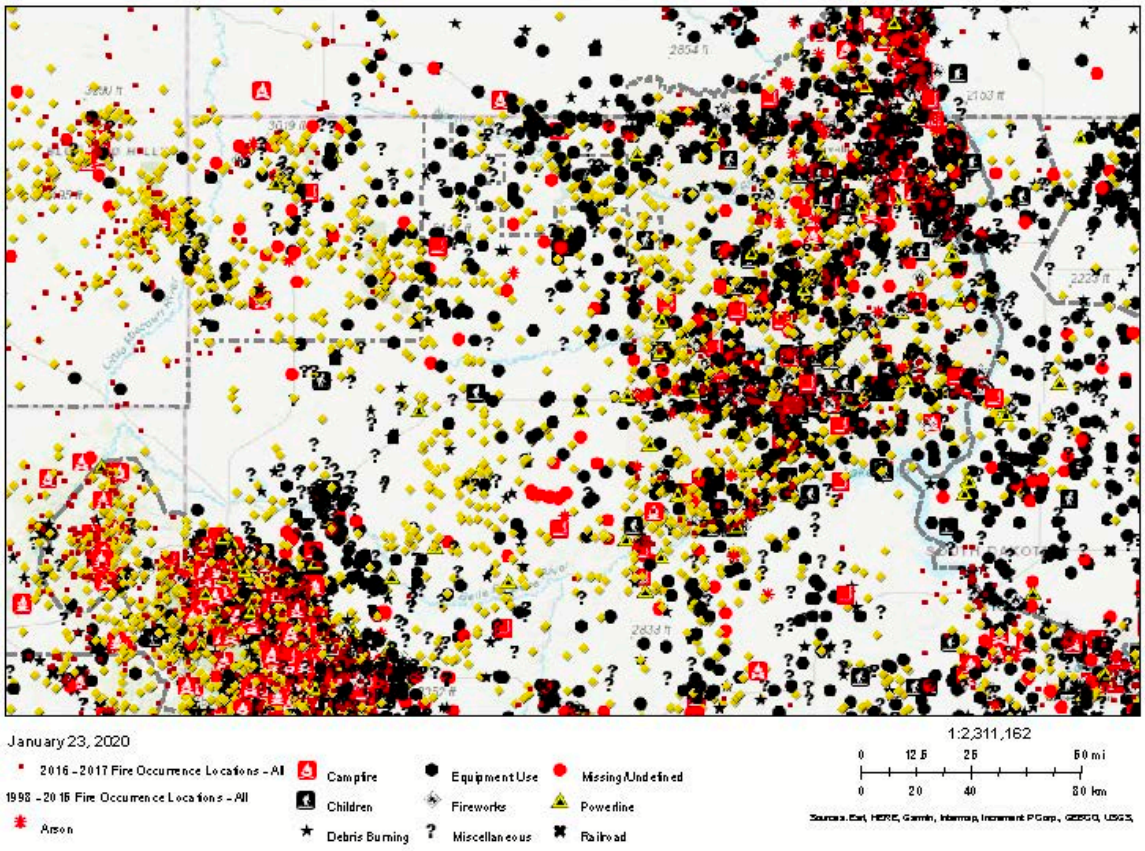
1:2,311,162

0 12.5 25 50 mi

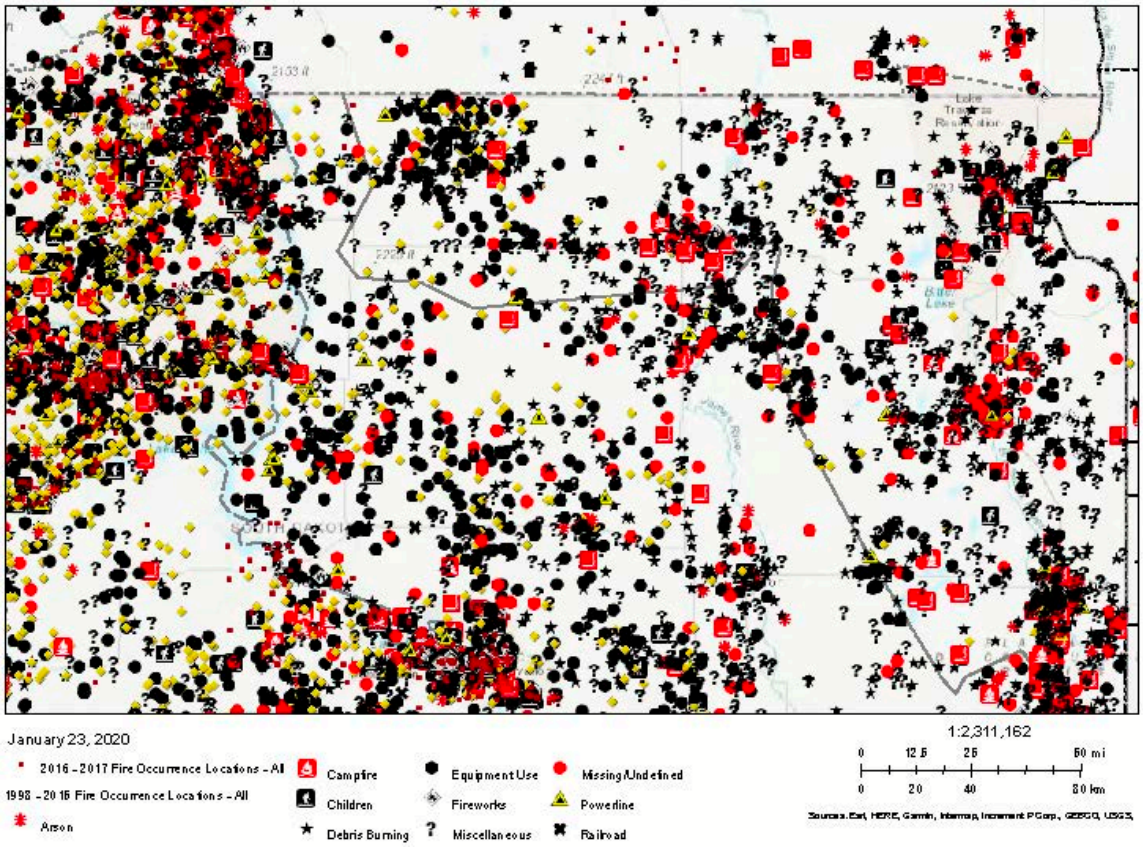
0 20 40 80 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

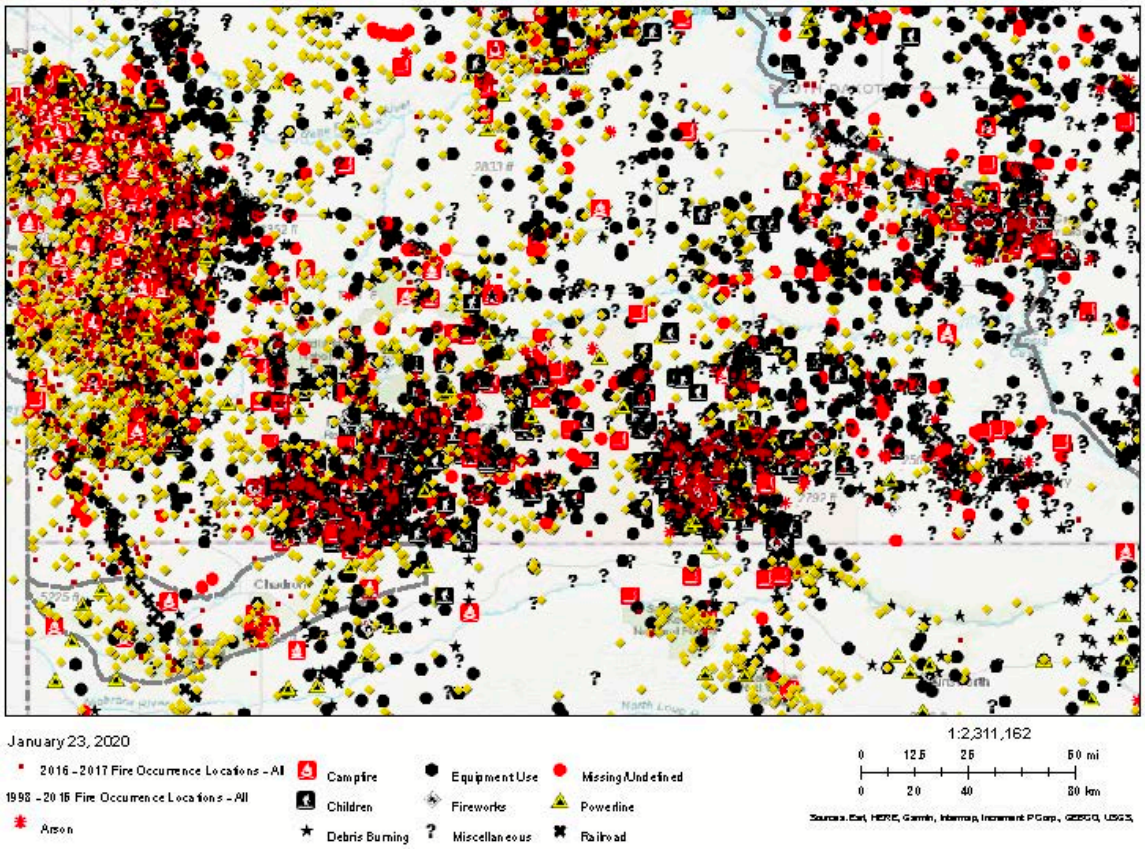
Fire Analysis



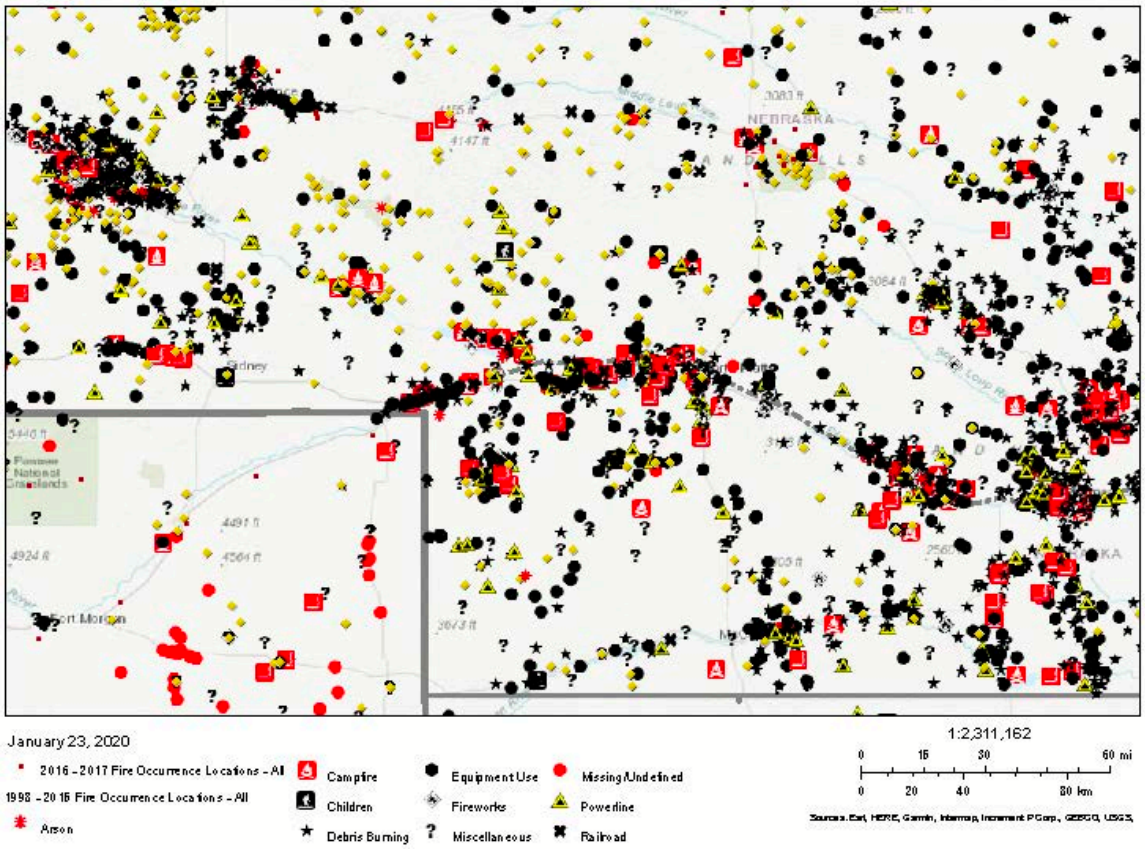
Fire Analysis



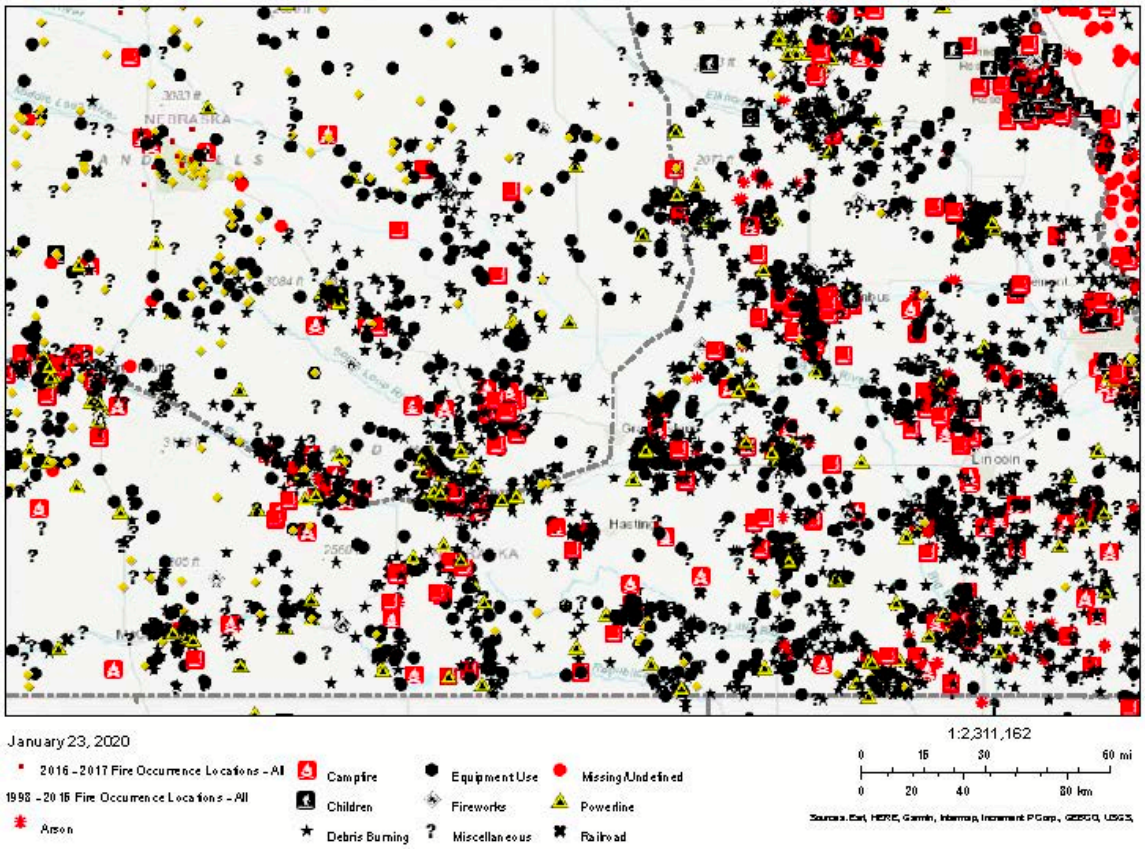
Fire Analysis



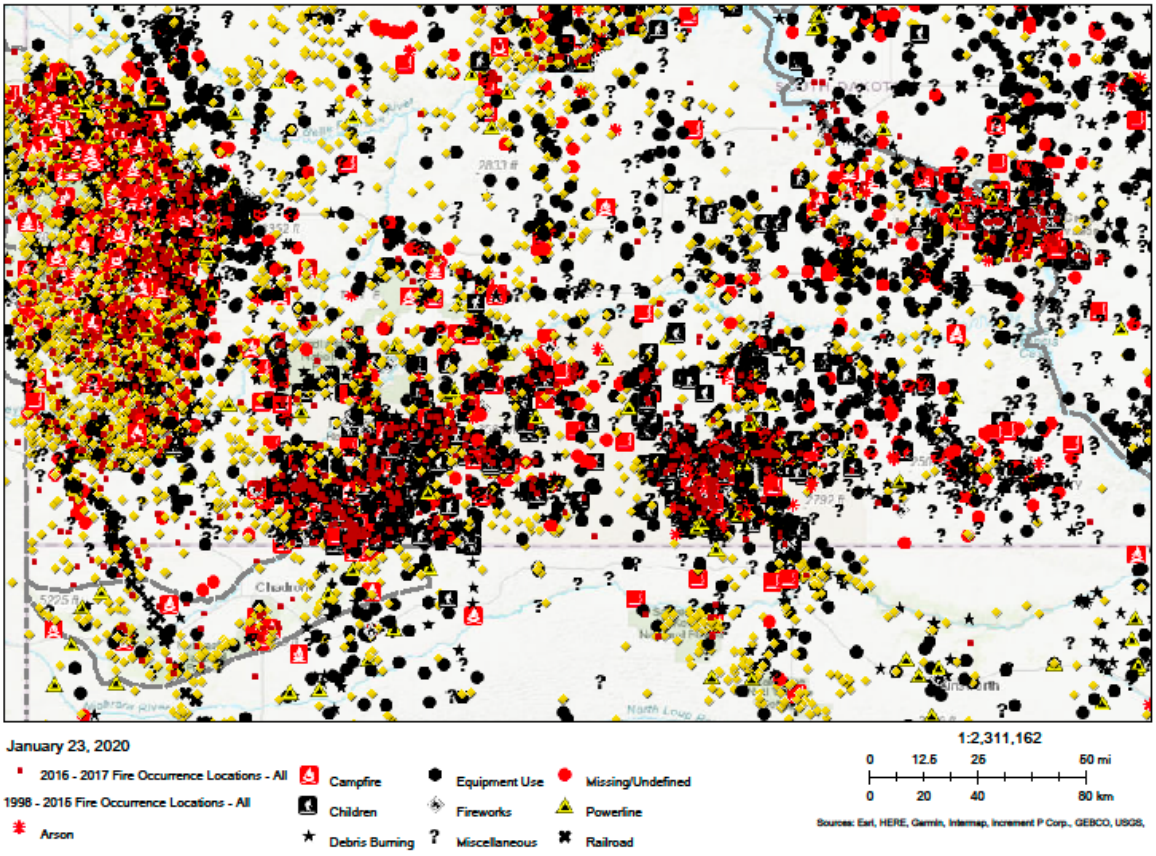
Fire Analysis



Fire Analysis



Fire Analysis



APPENDIX L-FIREFAMILYPLUS ANALYSIS

FireFamilyPlus Analysis Parameters

Table 13: FireFamilyPlus Parameters

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #1*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Nemo	Devils Tower	Bearlodge					
NFDRS Fuel Model	Y	Y	Y					
Data Years Used in Analysis	2000-2019	2003-2019	1993-2019					
Weight	1.00	1.00	1.00					

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #2*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Custer	Baker Park	Rapid City West	Whitetail				
NFDRS Fuel Model	Y	Y	Y	Y				
Data Years Used in Analysis	2000-2019	2001-2019	2014-2019	2005-2019				
Weight	1.00	1.00	1.00	1.00				

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #3*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Red Canyon	Elk Mountain	Custer State Park	Custer	Mt. Rushmore			
NFDRS Fuel Model	Y	Y	Y	Y	Y			
Data Years Used in Analysis	2000-2019	2005-2019	2008-2019	2000-2019	2000-2019			
Weight	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Large Fire Size (acres)	100
Multiple Fire Day (fires/day)	5

SIG: *FDRA #4*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Kings Canyon							
NFDRS Fuel Model	Y							
Data Years Used in Analysis	2000-2019							
Weight	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #5*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*	*RAWS #9*	*RAWS #10*	*RAWS #11*	*RAWS #12*
Weather Station Name	Indian Butte	Grand River	Tatanka Prairie	Bear Creek	Fort Pierre	Pinn-acles	Magpie Creek	Agate	Valen-tine	Bessey	Scotts Bluff	Porcu-pine
NFDRS Fuel Model	V	V	V	V	V	V	V	V	V	V	V	V
Data Years Used in Analysis	2005-2017	2010-2017	2008-2017	1993-2019	2003-2019	2003-2019	2001-2019	2005-2019	2002-2017	1990-2019	2012-2019	1996-2019
Weight	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #6*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Huron	Lake Andes	Loess Hills TNC Broken	Desoto	Sand Lake	Red Station		
NFDRS Fuel Model	V	V	V	V	V	V		
Data Years Used in Analysis	2003-2017	2003-2017	2004-2017	2002-2017	2004-2017	2005-2017		
Weight	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Large Fire Size (acres)	25
Multiple Fire Day (fires/day)	5

SIG: *FDRA #7*

Weather Station Number →	*RAWS #1*	*RAWS #2*	*RAWS #3*	*RAWS #4*	*RAWS #5*	*RAWS #6*	*RAWS #7*	*RAWS #8*
Weather Station Name	Sand Lake	Marshall Co.	Big Stone NWR	Red Station				
NFDRS Fuel Model	V	V	V	V				
Data Years Used in Analysis	2004-2017	2008-2017	2004-2017	2005-2017				
Weight	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Preparedness Levels

		Preparedness Levels				
RAWS	**ERC/BI**	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
Nemo-392506	ERC	0-6	7-19	20-31	32-42	43+
Red Canyon-395105	ERC	0-12	13-27	28-39	40-50	51+
Red Canyon-395105	BI	0-19	20-23	24-27	28-32	33+
Custer-393506	ERC	0-8	9-22	23-33	34-45	46+
Whitetail-392607	ERC	0-14	15-26	27-36	37-42	43+
Baker Park-392606	ERC	0-21	22-30	31-39	40-47	48+
Rapid City West-392608	ERC	0-15	16-27	28-39	40-48	49+
Custer State Park-393507	ERC	0-10	11-24	25-36	37-47	48+
Bearlodge-480605	ERC	0-7	8-18	19-31	32-45	46+
Agate-250105	BI	0-17	18-21	22-26	27-31	32+
Kings Canyon-250203	BI	0-18	19-23	24-28	29-34	35+

Valentine-250402	BI	0-16	17-20	21-24	25-29	30+
Mount Rushmore-392603	BI	0-15	16-21	22-25	26-29	30+
Devils Tower-480606	BI	0-17	18-20	21-23	24-27	28+
Indian Butte-390901	BI	0-9	10-21	22-29	30-37	37+
WICA Elk Mountain-393505	BI	0-19	20-24	25-29	30-34	35+
Fort Pierre-393801	BI	0-16	17-21	22-26	27-32	33+
Marshall Co.-390701	BI	0-5	6-14	15-21	22-28	29+
Sand Lake-390501	BI	0-8	9-18	19-26	27-33	33+
Tatanka Prairie-328501	BI	0-9	10-20	21-29	30-37	38+
Grand River-390301	BI	0-10	11-21	22-31	32-40	41+
Bear Creek-391201	BI	0-8	9-18	19-26	27-34	35+
Big Stone NWR-213501	BI	0-6	7-14	15-20	21-25	26+
Huron-393101	BI	0-9	10-17	18-24	25-30	31+
Red Station-216901	BI	0-6	7-15	16-20	21-26	27+
Lake Andes-395901	BI	0-7	8-16	17-23	24-30	31+
Loess Hills TNC Broken-132207	BI	0-9	10-15	16-20	21-24	25+
Desoto-135501	BI	0-7	8-14	15-18	19-23	24+
Scotts Bluff-251905	BI	0-16	17-20	21-24	25-28	29+
Bessey-252402	BI	0-16	17-20	21-24	25-28	29+
Pinnacles-392602	BI	0-17	18-23	24-27	28-33	34+
Crescent Lake-252101	BI	0-15	16-20	21-25	26-31	32+
Fort Pierre-393801	BI	0-16	17-21	22-26	27-32	33+
Porcupine-395202	BI	0-15	16-21	22-27	28-33	34+
Magpie-395601	BI	0-21	22-27	28-33	34-40	40+

APPENDIX M-FIRE DANGER RATING AREA DETAILS

1. FDRA #1

- General Location:

This FDRA covers the northern Black Hills in South Dakota and Wyoming and includes Devil's Tower National Monument. It contains portions of Crook, Lawrence, Meade, and Pennington Counties. It includes Fire Weather Zones 318 in WY and 319 in SD.

- Vegetation:

The predominant tree species in the Black Hills is ponderosa pine, although white spruce, aspen and other hardwood species occur, as do meadows and natural openings with grass, shrub and forb species. The forest is largely a mosaic of tree groups of different ages and heights. There are some natural openings or meadows of various sizes and shapes. At Devil's Tower National Monument the vegetation is predominately open & closed canopy ponderosa pine over 62% of the area. Along the floodplain of the Belle Fourche River and along stringers that follow tributaries of the river, there is deciduous woodland. The monument is 29% prairie. NFDRS fuel models V (grass), Y (timber), and some Z (slash/blowdown are representative of this FDRA.

- Climate:

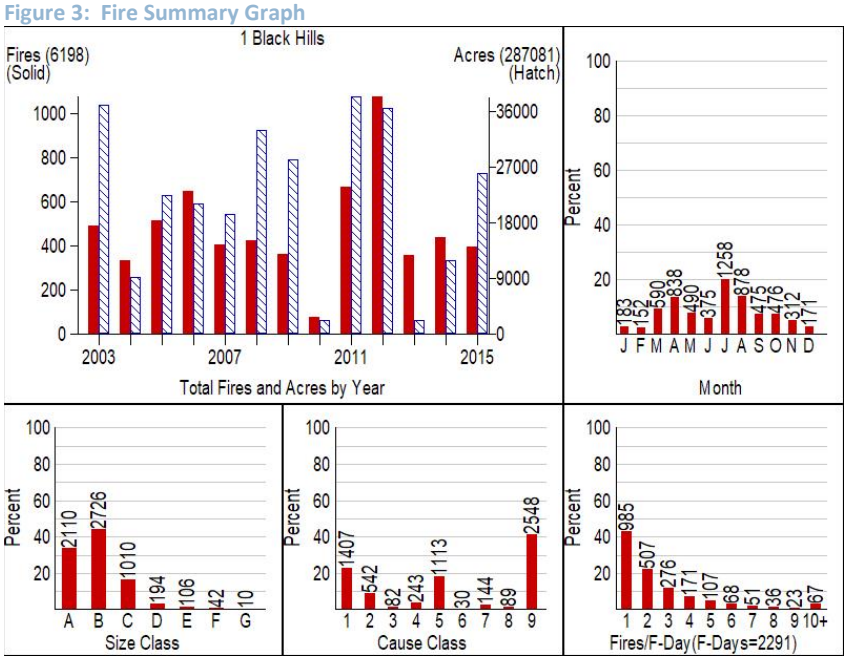
This FDRA is characterized by NFDRS Climate Class 2: Sub-humid/ Savanna

- Topography:

The Northern Black Hills is characterized by steep to very steep side slopes, narrow valley bottoms and outcrops of granite. Spearfish Canyon consists of narrow canyon walls, which rise sharply from the stream and highway carved from the bottom of the canyon. The Bear Lodge Mountains are similar to the Northern Hills with less exposed rock outcrops. Situated in the Wyoming Black Hills, Devil's Tower National Monument is a high monolith of igneous rock intruding through sedimentary layers of sandstone and shale. The Belle Fourche River meanders through the southeast corner of the monument.

- FDRA #1 – Fire Summary Graph

Figure 3: Fire Summary Graph



Size Class:

A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

2. FDRA #2

- General Location

This FDRA covers the central Black Hills, Mount Rushmore National Memorial, and the northern portion of Custer State Park in South Dakota. I contains portions of Custer, Pennington, Lawrence Counties, and a small portion of NE Weston County Wyoming. It includes Fire Weather Zone 320 and a small portion of 322.

- Vegetation:

The predominant tree species is ponderosa pine, although white spruce, aspen and other hardwood species occur, as do meadows and natural openings with grass, shrub and forb species. The forest is largely a mosaic of tree groups of different ages and heights. Mount Rushmore National Memorial contains mostly NFDRS Fuel Model Y (timber), Western Long Needled Pine which may be characterized as closed stands of Ponderosa Pine. NFDRS fuel models V (grass), Y (timber), and some Z (slash/blowdown) are most representative of this FDRA.

- Climate:

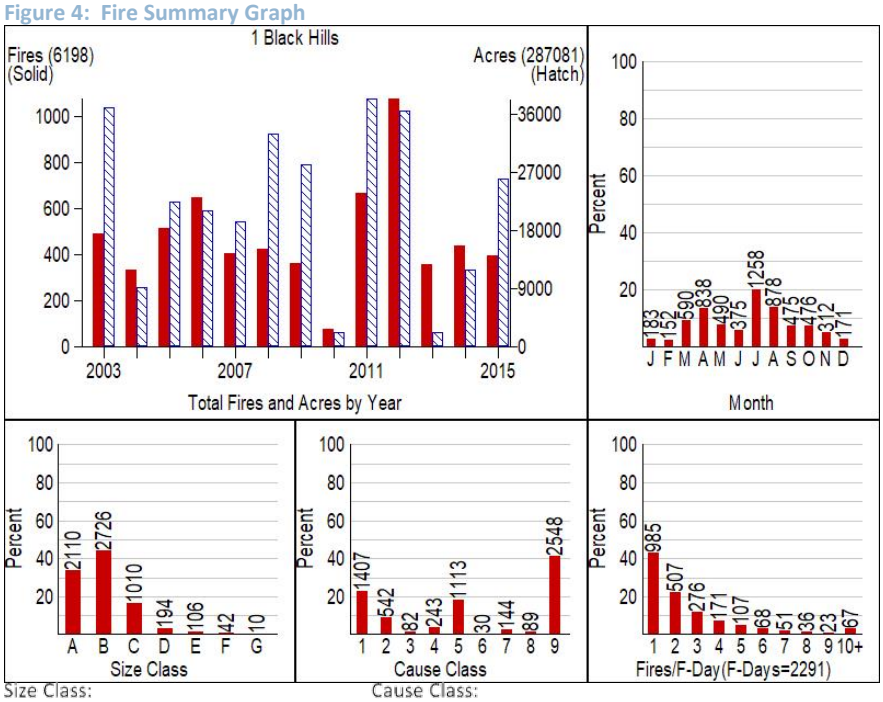
This FDRA is characterized by NFDRS Climate Class 2: Sub-humid/ Savanna.

- Topography:

The central Black Hills is characterized by steep to very steep side slopes, narrow valley bottoms and outcrops of granite. The valley bottoms generally are less than 300 feet in width in the Black Elk Wilderness area. Mount Rushmore National Memorial has steep slopes, sheer cliff faces and large rock outcroppings typical of the Central Black Hills.

- FDRA #2 – Fire Summary Graph

Figure 4: Fire Summary Graph



Size Class:

A =	0	— .25	acres
B =	.30	— 9	acres
C =	10	— 99	acres
D =	100	— 299	acres
E =	300	— 999	acres
F =	1000	— 4999	acres
G =	5000	+	acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

3. FDRA #3

- General Location:

This FDRA covers the southern Black Hills, Wind Cave National Park, Jewel Cave National Monument, and the southern portion of Custer State Park in South Dakota. It contains portions of Custer and Fall River Counties, and a small portion of NE Weston County Wyoming. It includes Fire Weather Zone 321 and the northern portion of 322.

- Vegetation:

The predominant tree species is ponderosa pine, although white spruce, aspen and other hardwood species occur, as do meadows and natural openings with grass, shrub and forb species. The forest is largely a mosaic of tree groups of different ages and heights. Wind Cave National Park consists of three major fuel types with approximately 63% prairie grassland, 29% forest, and 7% shrub lands that can be classified as NFDRS Fuel Models V (grasses), Y (timber) and Z (slash/blowdown).
Jewel Cave National Monument was affected by a major wildland fire in August and September of 2000. The Jasper Fire burned approximately 95% of the Monument causing much of the forest habitat to be returned to an early successional stage of growth. This FDRA can be best characterized by NFDRS fuel models V (grass), Y (timber), and some Z (slash/blowdown).

- Climate:

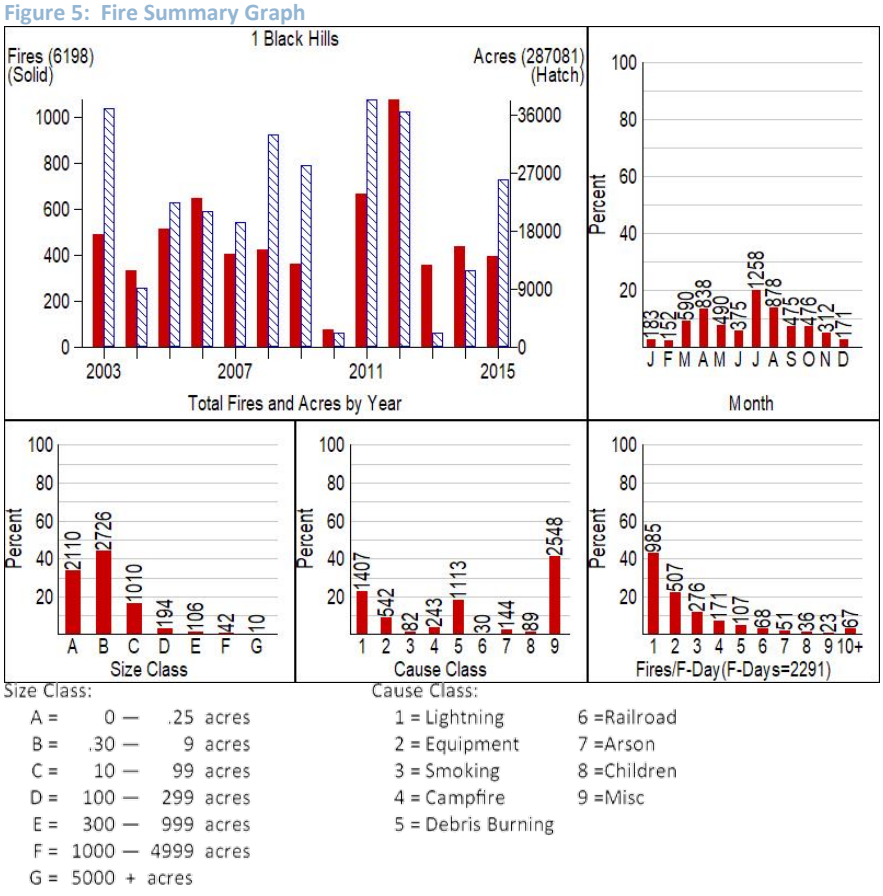
This FDRA is characterized by NFDRS Climate Class 2: Sub-humid/ Savanna.

- Topography:

The southern Black Hills are dominated by open grasslands and areas of woody vegetation. Deep sandstone canyons run through the area and surface water is limited. In Wind Cave National Park the topography varies from mountainous to flat plains but is predominantly rolling hills. Elevations range from a low of 3,560 feet to a high of 5,013 feet (Rankin Ridge).
At Jewel Cave National Monument, two canyons dominate the surface topography. Hell Canyon is on the west and Lithograph Canyon is on the southeast with the junction of the two at the south boundary of the Monument. Elevation ranges from 5,090’ to 5,880’.

- FDRA #3 – Fire Summary Graph

Figure 5: Fire Summary Graph



4. FDRA #4

- General Location:

This FDRA is located in northwestern Nebraska and includes the Nebraska National Forest and Fort Robinson State Park. It includes fire weather zones 311 and 204.

- Vegetation:

The predominant vegetation of Oglala National Grassland, the Soldier Creek Wilderness, and other non-forested areas of the zone is perennial grasses and forbs (NFDRS fuel model V). The predominant vegetation of the Pine Ridge area is open ponderosa pine stands with a perennial grasses and forbs (NFDRS fuel model Y).

- Climate:

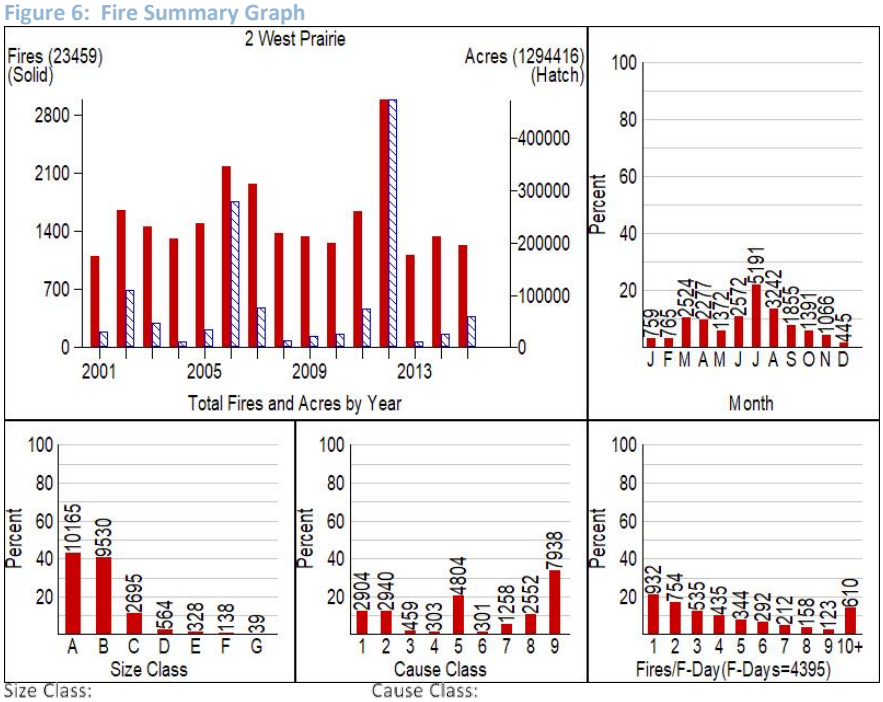
This FDRA is characterized by NFDRS Climate Class 1 – Arid-Desert / Steppe and Climate Class 2 – Sub-humid/ Savanna.

- Topography:

The topography of the Oglala National Grasslands is a blend of rolling plains and badlands, including highly eroded benches, clay hardpan, and bluffs Elevations range from 3,600 feet above sea level near Rock Butte Reservoir to 4,700 feet at Eagle Eye Rock, about two miles south of Hudson-Meng. The Pine Ridge portion of the zone is an escarpment of sandstone bluffs that extends just beyond the border in Wyoming, through northwestern Nebraska into southwestern South Dakota. Elevations range between 3,440 feet at Bordeaux Creek to 4,600 feet in the Deadman Creek area.

- FDRA #4 – Fire Summary Graph

Figure 6: Fire Summary Graph



Size Class:

A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

5. FDRA #5

- General Location:

This FDRA covers western SD including Custer County Plains, the eastern half of Pennington County, most of Meade, Fall River, Pine Ridge, Badlands National Park, Bennet, Haakon, Butte, Harding, Perkins, Ziebach, Corson, Dewey, Mellette, Stanley, Lyman, Gregory, Jones, Todd, and Tripp Counties, and Sioux County in ND. It also covers western Nebraska, including the counties of Sioux, portions of Dawes, Box Butte, Scottsbluff, Banner, Kimball, Morrill, Cheyenne, Deuel, Garden, Sheridan, Cherry, Grant, Hooker, Thomas, Arthur, McPherson, northern Keith, Logan, Blaine, Loup, Custer, northeastern Dawson, Buffalo, NW Hail, Sherman, Howard, Valley, Greeley, Garflield, Wheeler, Brown, Rock, Holt, western Boone and Nance. It contains Agate Fossil Beds National Monument, Scotts Bluff National Monument, Samuel McKelvie National Forest, Sand Hills, Crescent Lake, North Platte, Fort Niobrara, and Valentine National Wildlife Refuges in NE and Lake Andes, Sand Lake, Waubay, and Lacreek National Wildlife Refuges in SD. It also contains Standing Rock, Cheyenne River, Pine Ridge, Rosebud, and a portion of the Crow Creek Reservation, within Wyoming this FDRA encompasses the non-forested portions of Crook County. It includes fire weather zones 003, 015, 033, 045, 048, 050, 133, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332,3 33, 334, 335, 267, and 268 in SD and 311, 312, 313, 204, 206, 208, 209, 39, 40, 46, 47, 60-62 in NE.

- Vegetation:

The predominant vegetation in the zone is perennial grasses and forbs (NFDRS fuel models V and W). Woody plant communities occur among the canyons of the Badlands wall, and along springs, streams, stock ponds, and geologic slumps. These woody draws are best characterized by NFDRS fuel model Y. The Agate Fossil Beds National Monument is comprised of perennial grasses and forbs. The fuels at Scotts Bluff National Monument are characterized by perennial grasses and forbs (NFDRS fuel model V). There are areas that contain woody vegetation at the summit of Scotts Bluff/South Bluff, along the North Platte River floodplain and in woody draws which may be represented as NFDRS fuel models Y and W.

- Climate:

This FDRA is characterized by NFDRS Climate Class 1: Arid-Desert / Steppe and Climate Class 2 – Sub-humid/ Savanna.

- Topography:

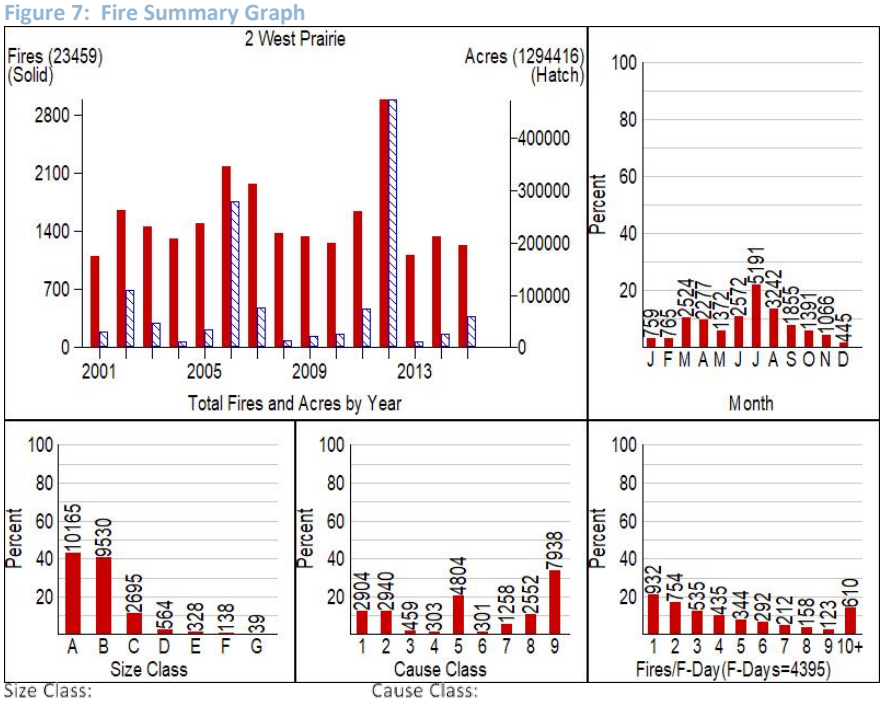
The zone is a blend of rolling hills and plains, rugged badlands formations, river breaks, and flat bottomlands that drain into the Cheyenne River and its tributaries. Elevations range from about 2,450 feet along the Cheyenne River

to 4,200 feet near the former Black Hills Army Ordnance Depot - the highest point in the zone. The topography of the zone consists of rolling grassland above the “Wall” badlands landscape feature. This landscape features drops vertically an average of about 600 feet. Badlands features and flat clay hardpan with sparse vegetation are generally located below the “Wall”. The Indian Creek area consists of very steep juniper breaks with large intermingled badland formations. Elevations range from approximately 2,200 feet along the White River to 3,300 feet near Pinnacles Ranger station at Badlands National Park. The topography of Agate Fossil Beds National Monument consists of rocky bluffs that line both the northern and southern edges of the park with the Niobrara River running through the center. Valleys with rolling grasslands as well as small canyons can be found in the park. The elevations within the park range from 4,380 feet at the Niobrara River on the eastern boundary, to a high of 4,560 feet at the top of the fossil hills. Scottsbluff National Monument has a massive promontory rising steeply about 800 feet above the North Platte River to an elevation of 4,649 feet. The topography of the Oglala National Grasslands is a blend of rolling plains and badlands, including highly eroded benches, clay hardpan, and bluffs Elevations range from 3,600 feet above sea level near Rock Butte Reservoir to 4,700 feet at Eagle Eye Rock, about two miles south of Hudson-Meng.

The vegetation component within the exterior boundaries of BIA-Great Plains Indian Reservations varies from tall grass prairie/mixed hardwood in northeastern Nebraska and eastern South Dakota to short grass prairie/mixed hardwood and conifer in western South Dakota. Generally, the predominant native/desirable grasses in the eastern region are Indian grass, big bluestem and switchgrass, while native/desirables in the west are western wheat, blue grama and several subspecies of needle grass. Invader species are in abundance in both eastern and western systems, and are composed primarily of smooth brome, cheat grass and crested wheatgrass. Although the invaders are encroaching upon native prairie, some value is still attributed to each of them and they are managed accordingly. When combined with other wetland species such as cattails, canary reed grass, phragmites and softwoods along with the upland agricultural vegetation component and forested riparian zones, Nebraska and Dakota Indian Reservations are composed of a nearly continuous blanket of fine flashy fuel.

- FDRA #5 – Fire Summary Graph

Figure 7: Fire Summary Graph



Size Class:

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B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

6. FDRA #6

- General Location:

This FDRA covers a portions of eastern South Dakota as well as eastern and southern Nebraska. It includes the eastern part of the Crow Creek, Yankton, and Omaha Reservations. It stretches from Cambell County south along the eastern side of the Missouri River to Charles Mix, east to Union, north to Minneahaha up to Spink and across Faulk and up through Walworth in SD. It covers a portion of Keith, Lincoln, Dawson, Hall, Hamilton, Holt, Boyd, Howard, Greeley, Wheeler, and York Counties as well as Chase, Hayes, Dundy, Hitchcock, Frontier, Red Willow, Gosper, Furnas, Harlan, Phelps, Kearney, Franklin, Adams, Webster, Nuckolls, Clay, Thayer, Fillmore, Saline, Gage, Jefferson, Johnson, Pawnee, Nemaha, Richardson, Otoe, Lancaster, Cass, Seward, Butler, Saunders, Douglas, Colfax, Dodge, Washington, Burt, Cuming, Stanton, Thurston, Wayne, Cedar, Dixon, Dakota, Merrick, Nance, Boone, Antelope, Knox, Pierce, Madison in NE. This area includes the FWS

Rainwater Basin Wetland Management District (WMD). A WMD consists of small tracts of fee-title owned lands known as Waterfowl Production Areas (WPAs). It includes portions of fire weather zones 004, 005, 009, 010, 018, 019, 039, 054, 055, 056, and all of 016, 017, 025, 034, 035, 036, 037, 038, 051, 052, 053, 057-071 in SD and 11, 12, 15, 249, 16, 17, 18, 30- 34, 41-45, 48, 49, 50, 51, 52, 53, 60, 62-68, 72-92, and 210 in NE.

- Vegetation:

The majority of fuels within this FDRA of NFDRS fuel model V, short intermixed perennial grasses semiarid grasses with isolated scatterings of semiarid to arid drought tolerant plant species. In the Rainwater Basin there are also forbs increasing in height and density as you move east across the district. The fuel bed is very fragmented in portions of this FDRA with much of the area classified as Agriculture Lands in Landfire. These areas are capable of supporting active fire spread during certain times of the year depending on the crop and farming practice utilized.
The area including FWZs 057, 058, 063, and 064 in SD can be characterized by dominance of the "Missouri Coteau" and the Missouri River Valley Corridor. The majority of fuels on this weather zone consist of short intermixed perennial humid grasses intermixed with isolated pockets of native tall grass prairie (fuel model V), with intermixed semiarid to arid drought tolerant plant species along the Missouri River corridor. The shaded and moister drainages and river bottoms are composed of fuel stringers consisting of short grass and Rocky Mountain Juniper and Riparian hardwood forest (fuel model Y).
The area near FWZs 038, 053, 054, 059, 060, 061 is predominately composed of the James River Basin. The basin runs North to South and is composed of cattails, phragmities, reed canary grass, sedges and portions of the "Big Three Warm Season Grasses (fuel model V). District lands are fragmented amongst the prairie potholes and ever present farm land.
Weather Zones 039, 040, 055, 056, and 062 consist of fertile agricultural land that transforms into large tracts of pastures, with intermixed native hardwood species as eastern species intermix more with western species. Fuels consist mostly of Fuel Model V with a mosaic scattering of Fuel model Y (Hardwood Litter) as you gradually climb the extending "Prairie Coteau Ridge" and Turkey Ridge.
FWZs 065, 066, 067, 068, 069, 070, and 071 are composed of the merging of the Missouri river corridor and prairie Coteau ridge. Fuels consist primarily of intermixed humid and semi humid grasses (fuel model V). District lands are heavily intermixed among farm lands with large grazing pastures. Tundra and short needle litter dominate many of the low lying drainages.
The area of FWZs 034, 035, 036, 037, 051 is characterized by dominance of the "Missouri Coteau" and the Missouri River Valley Corridor. The majority of fuels on this weather zone consist of short intermixed perennial grasses

semiarid grasses with isolated scatterings of semiarid to arid drought tolerant plant species (fuel models V and W). The difference between this zone and zone 255 is the more humid class grasses are found in Zone 255.

- Climate:

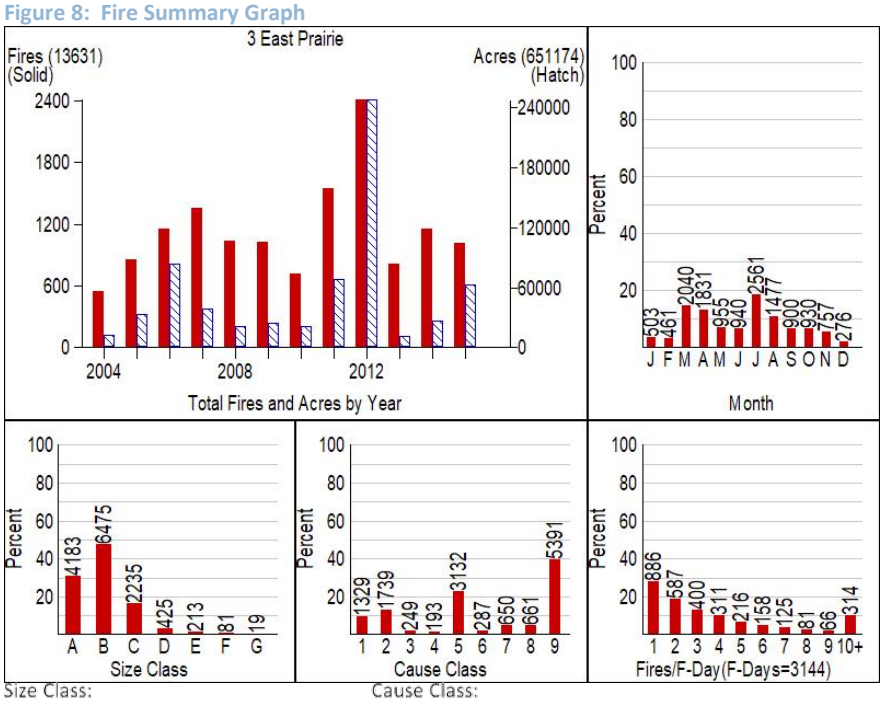
This FDRA is a combination of NFDRS Climate Class 1: Arid/ Desert and Climate Class 2: Sub-humid/ Savanna.

- Topography:

The Rainwater Basin is a 4,200 mi. region of shallow lakes, marshes and other wetlands located mostly south of the Platte River in south-central Nebraska. These oval basins occur mostly south of the Platte River on the loess-covered landscape of Nebraska. Elevation in the Rainwater Basin drops from around 3,000 feet in the west to 1,600 feet in the east. In the majority of the rest of the FDRA elevations range from 1,200 to 3,600 feet. This FDRA overlaps 4 physiographic regions Great Plains Province, Central Lowlands Province, James River Basin Province, and Lake Dakota Plain Province. Terrain is rolling hills to flat.

- FDRA #6 – Fire Summary Graph

Figure 8: Fire Summary Graph



Size Class:

A =	0 —	.25	acres
B =	.30 —	9	acres
C =	10 —	99	acres
D =	100 —	299	acres
E =	300 —	999	acres
F =	1000 —	4999	acres
G =	5000 +		acres

Cause Class:

1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

7. FDRA #7

- General Location:

This FDRA is located in the northeastern corner of South Dakota. It includes the Lake Traverse Reservation, Sand Lake National Wildlife Refuge and Waubay National Wildlife Refuge. It covers a portion of Campbell, Walworth, Edmunds, McPherson, Brown, Spink, Clark, Kingsbury, Lake, and Moody Counties as well as Brookings, Hamlin, Deuel, Codington, Grant, Day, Roberts, and Marshall. It includes portions of fire weather zones 004, 006, 009, 010, 018, 019, 039, 055, 056, and all of 005, 007, 008, 011, 020, 021, 022, 023, 040.

- Vegetation:

The predominant vegetation is perennial grasses and forbs (NFDRS fuel model V and W.) The vegetation component found on the Great Plains Fire Zone fee title lands (Waterfowl Production Areas (WPA's,) and National Wildlife Refuges) transitions from the east to west.
FWZ's 008 and 021 are best represented by NFDRS Fuel Model V. Native and Restored tall grass prairie tracts of land are like postage stamp seas of grass, interspersed amongst valley farm land. Dominant vegetation found here can be represented by the "Big Three" warm season native grasses: Big Blue Stem, Indian, and Switch grasses. Encroaching on their environment are the cool season exotics: Kentucky bluegrass and smooth brome grass.
In FWZ's 007, 011, 019, 020, 022, 023, 039, 040, 055, and 056 vegetation and fuels found on the Great Plains Fire Zone Fee Title Land doesn't change as much as the surrounding land use. Fertile agricultural land transforms into large tracts of luscious pastures. It consists of a transition from sawgrass into western perennial grass with intermixed Hardwood Litter as you climb the "Prairie Coteau." Dominant vegetation on-top of the Prairie Coteau consist of Big Three Warm Season Grasses and encroaching cool season exotics.
In FWZ's 006, and 018 fuels and vegetation remain consistent with the previous FWZ. The one noticeable change comes with the large drainage that is prominent in this FWZ. This drainage is known as the James River Basin. The Basin runs north to south. The majority of the Basin in composed of cattails, phragmities, reed canary grass, sedges and portions of the "Big Three Warm Season Grasses. District WPA lands become a little more segmented amongst the ever present farm land.
FWZ's 004, 005, 009, 010 can be characterized by dominance of the "Missouri Coteau." The majority of fuels on this Coteau are similar to that of the Prairie Coteau. The dominant fuel becomes a short grass with small portions of wetland edges. As with the Prairie Coteau, the district lands are surrounded by large tracts of Western Perennial Grasses.

- Climate:

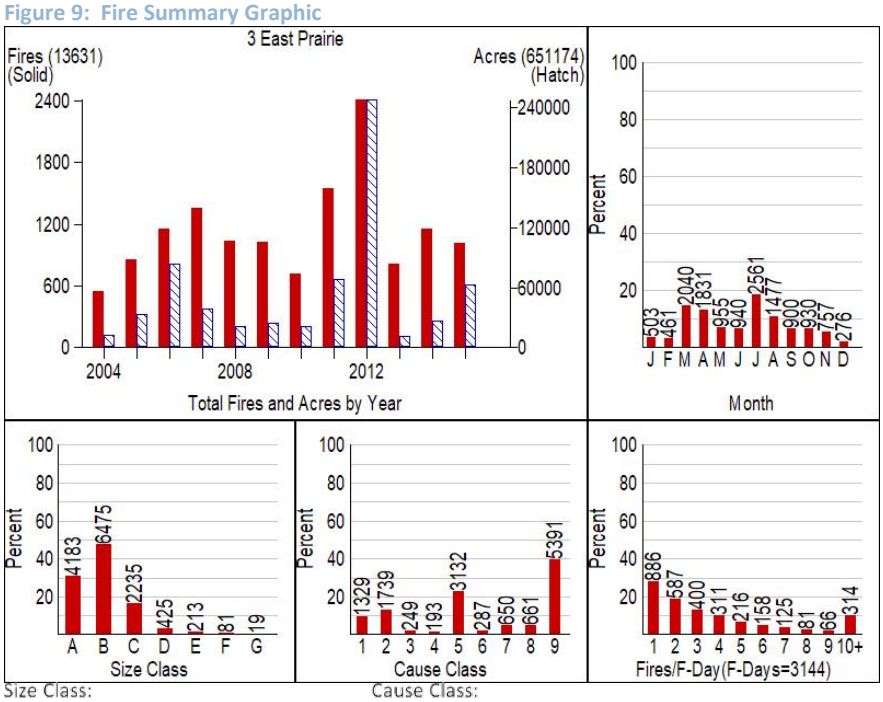
This FDRA is a combination of NFDRS Climate Class 1: Arid/ Desert and Climate Class 2: Sub-humid/ Savanna.

- Topography:

As the FWZ transitions from 273 to 272 an elevation change from 900 ft. to 2010 ft. occurs. The transition to FWZ 271 includes an elevation change from 2010 ft. to 1286 ft. at Sand Lake NWR. Where FWZ 271 transitions to 269 the elevation rises to 2030 ft. with some of the highest points at 2550 ft.

- FDRA #7 – Fire Summary Graph

Figure 9: Fire Summary Graphic



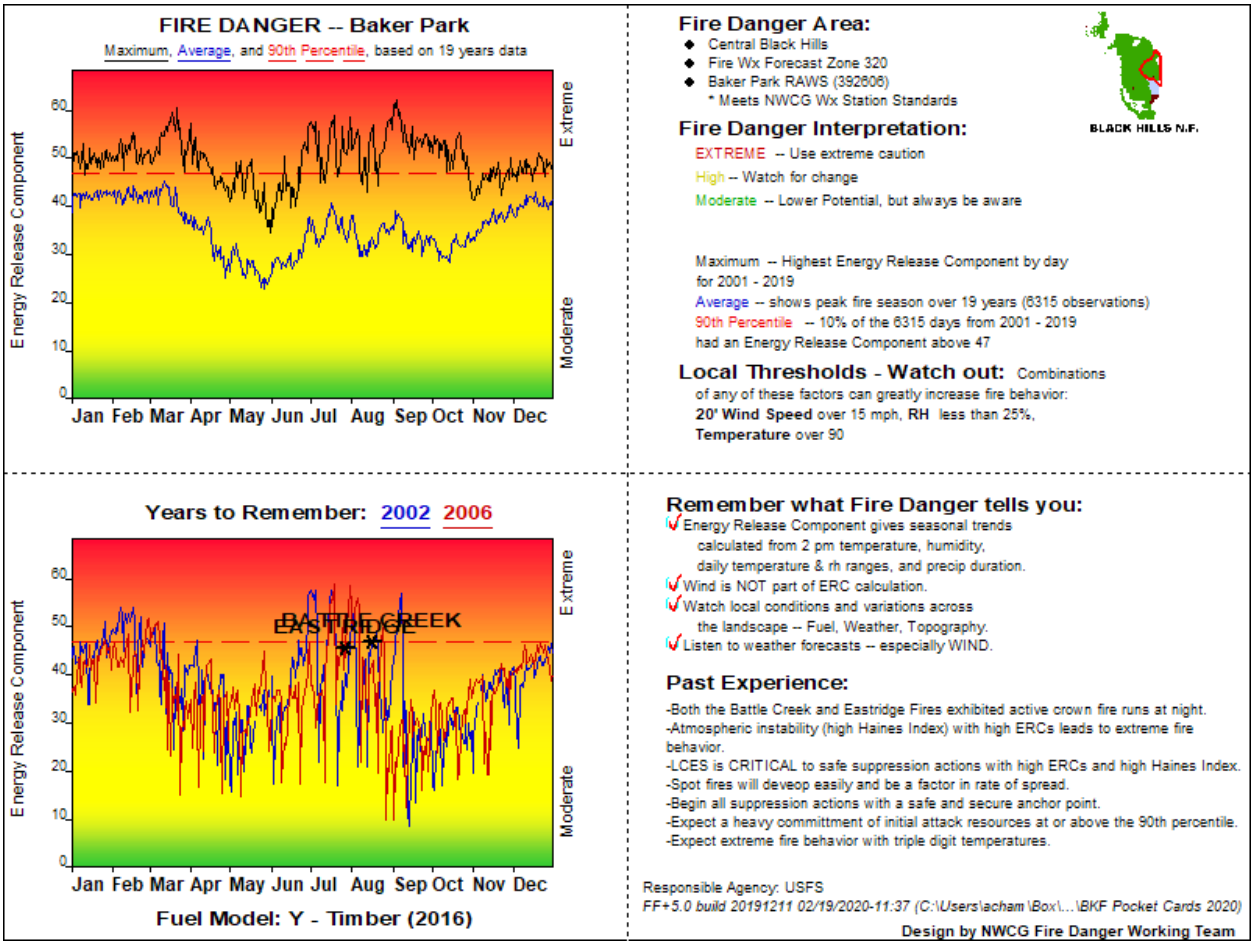
Size Class:

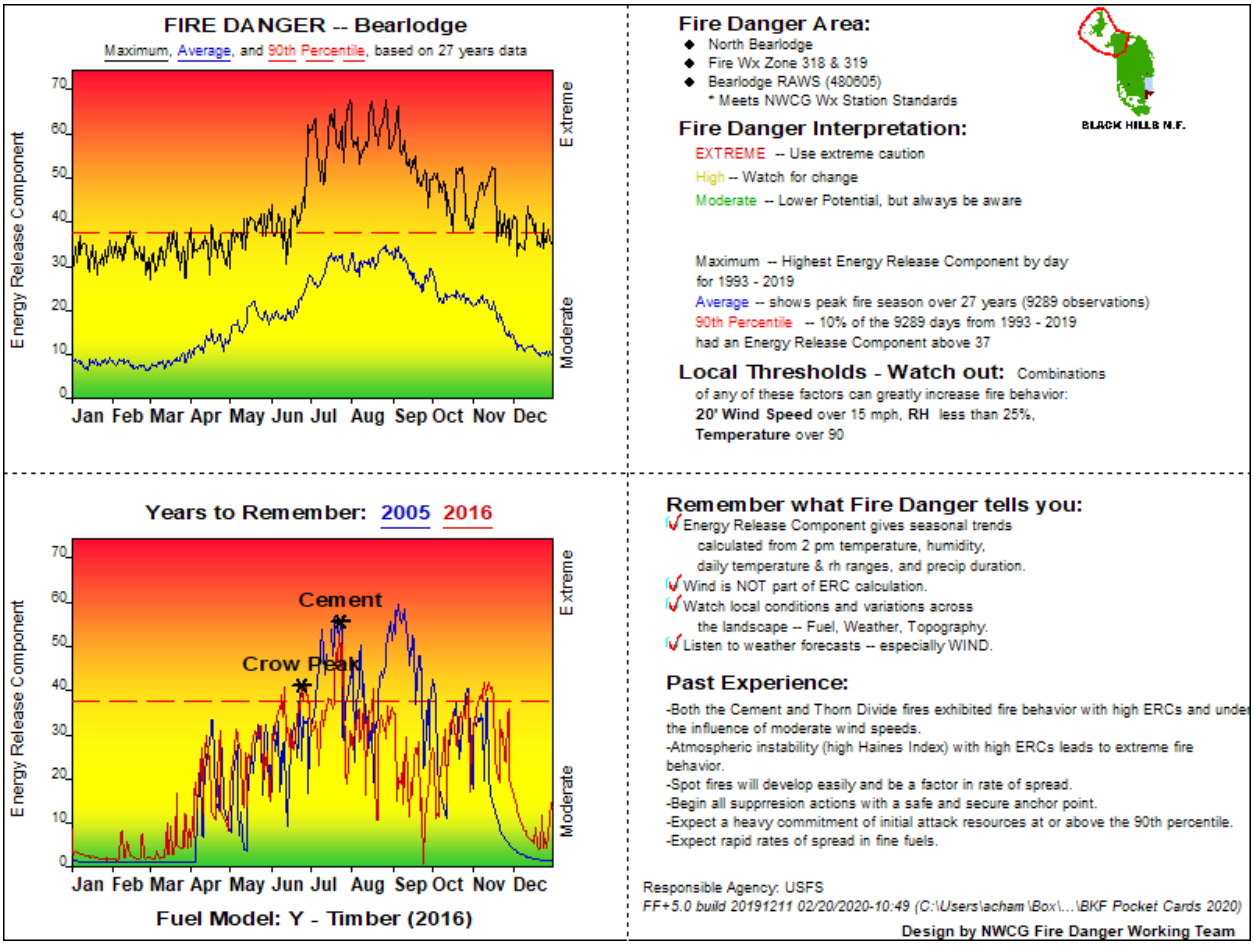
A =	0	— .25	acres
B =	.30	— 9	acres
C =	10	— 99	acres
D =	100	— 299	acres
E =	300	— 999	acres
F =	1000	— 4999	acres
G =	5000	+	acres

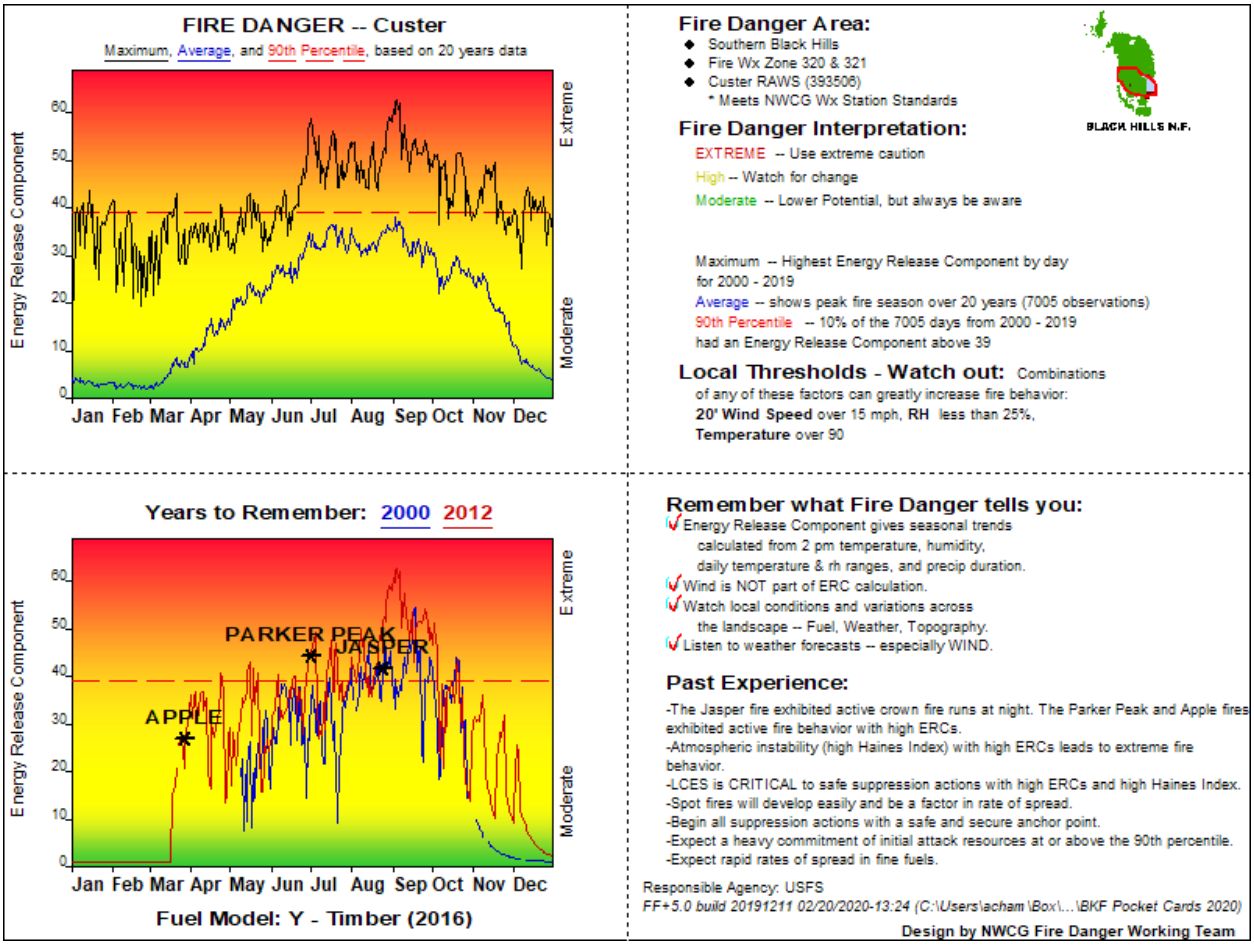
Cause Class:

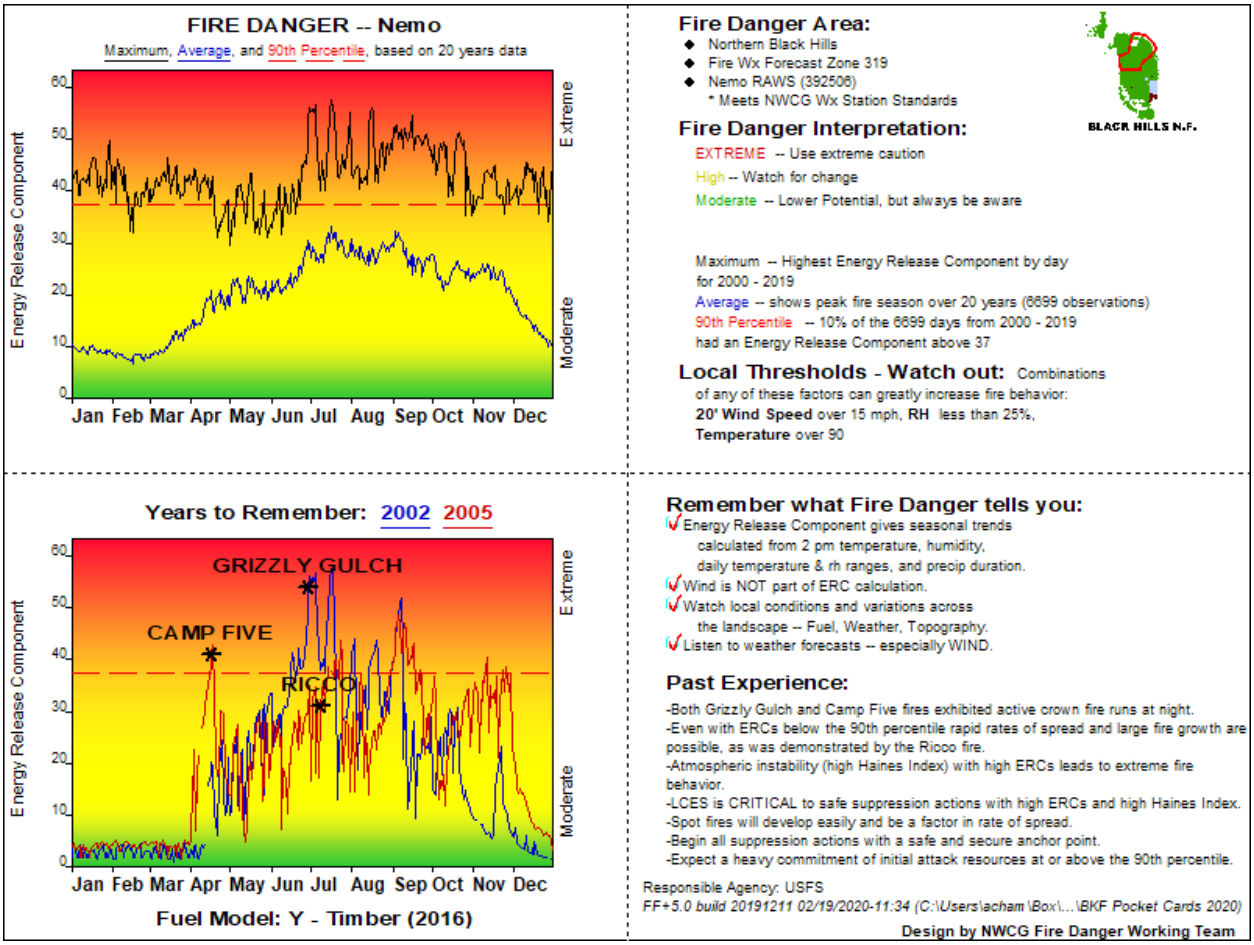
1 = Lightning	6 =Railroad
2 = Equipment	7 =Arson
3 = Smoking	8 =Children
4 = Campfire	9 =Misc
5 = Debris Burning	

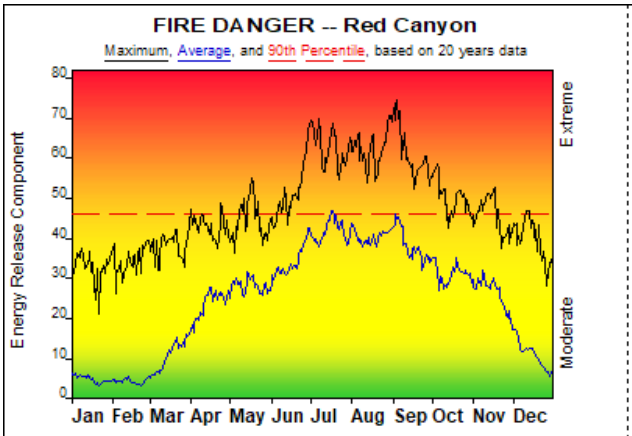
APPENDIX N-POCKET CARDS




FIRE DANGER -- Bearlodge
Maximum, Average, and 90th Percentile, based on 27 years data
Energy Release Component
Extreme
Moderate
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Fire Danger Area:
North Bearlodge
Fire Wx Zone 318 & 319
Bearlodge RAWS (480605)
* Meets NWCG Wx Station Standards
BLACK HILLS N.F.
Fire Danger Interpretation:
EXTREME -- Use extreme caution
High -- Watch for change
Moderate -- Lower Potential, but always be aware
Maximum -- Highest Energy Release Component by day for 1993 - 2019
Average -- shows peak fire season over 27 years (9289 observations)
90th Percentile -- 10% of the 9289 days from 1993 - 2019 had an Energy Release Component above 37
Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
20' Wind Speed over 15 mph, RH less than 25%, Temperature over 90
Years to Remember: 2005 2016
Cement
Crow Peak
Fuel Model: Y - Timber (2016)
Remember what Fire Danger tells you:
Energy Release Component gives seasonal trends calculated from 2 pm temperature, humidity, daily temperature & rh ranges, and precip duration.
Wind is NOT part of ERC calculation.
Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
Listen to weather forecasts -- especially WIND.
Past Experience:
-Both the Cement and Thorn Divide fires exhibited fire behavior with high ERCs and under the influence of moderate wind speeds.
-Atmospheric instability (high Haines Index) with high ERCs leads to extreme fire behavior.
-Spot fires will develop easily and be a factor in rate of spread.
-Begin all suppresion actions with a safe and secure anchor point.
-Expect a heavy commitment of initial attack resources at or above the 90th percentile.
-Expect rapid rates of spread in fine fuels.
Responsible Agency: USFS
FF+5.0 build 20191211 02/20/2020-10:49 (C:\Users\acham\Box\...\BKF Pocket Cards 2020)
Design by NWCG Fire Danger Working Team


FIRE DANGER -- Custer
Maximum, Average, and 90th Percentile, based on 20 years data
Energy Release Component
Extreme
Moderate
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Fire Danger Area:
Southern Black Hills
Fire Wx Zone 320 & 321
Custer RAWS (393506)
* Meets NWCG Wx Station Standards
BLACK HILLS N.F.
Fire Danger Interpretation:
EXTREME -- Use extreme caution
High -- Watch for change
Moderate -- Lower Potential, but always be aware
Maximum -- Highest Energy Release Component by day for 2000 - 2019
Average -- shows peak fire season over 20 years (7005 observations)
90th Percentile -- 10% of the 7005 days from 2000 - 2019 had an Energy Release Component above 39
Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
20' Wind Speed over 15 mph, RH less than 25%, Temperature over 90
Years to Remember: 2000 2012
PARKER PEAK
JASPER
APPLE
Fuel Model: Y - Timber (2016)
Remember what Fire Danger tells you:
Energy Release Component gives seasonal trends calculated from 2 pm temperature, humidity, daily temperature & rh ranges, and precip duration.
Wind is NOT part of ERC calculation.
Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
Listen to weather forecasts -- especially WIND.
Past Experience:
-The Jasper fire exhibited active crown fire runs at night. The Parker Peak and Apple fires exhibited active fire behavior with high ERCs.
-Atmospheric instability (high Haines Index) with high ERCs leads to extreme fire behavior.
-LCES is CRITICAL to safe suppression actions with high ERCs and high Haines Index.
-Spot fires will develop easily and be a factor in rate of spread.
-Begin all suppression actions with a safe and secure anchor point.
-Expect a heavy commitment of initial attack resources at or above the 90th percentile.
-Expect rapid rates of spread in fine fuels.
Responsible Agency: USFS
FF+5.0 build 20191211 02/20/2020-13:24 (C:\Users\acham\Box\...\BKF Pocket Cards 2020)
Design by NWCG Fire Danger Working Team


FIRE DANGER -- Nemo
Maximum, Average, and 90th Percentile, based on 20 years data
Energy Release Component
Extreme
Moderate
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Fire Danger Area:
Northern Black Hills
Fire Wx Forecast Zone 319
Nemo RAWS (392506)
* Meets NWCG Wx Station Standards
BLACK HILLS N.F.
Fire Danger Interpretation:
EXTREME -- Use extreme caution
High -- Watch for change
Moderate -- Lower Potential, but always be aware
Maximum -- Highest Energy Release Component by day for 2000 - 2019
Average -- shows peak fire season over 20 years (6699 observations)
90th Percentile -- 10% of the 6699 days from 2000 - 2019 had an Energy Release Component above 37
Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior:
20' Wind Speed over 15 mph, RH less than 25%, Temperature over 90
Years to Remember: 2002 2005
GRIZZLY GULCH
CAMP FIVE
RICCO
Fuel Model: Y - Timber (2016)
Remember what Fire Danger tells you:
Energy Release Component gives seasonal trends calculated from 2 pm temperature, humidity, daily temperature & rh ranges, and precip duration.
Wind is NOT part of ERC calculation.
Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
Listen to weather forecasts -- especially WIND.
Past Experience:
-Both Grizzly Gulch and Camp Five fires exhibited active crown fire runs at night.
-Even with ERCs below the 90th percentile rapid rates of spread and large fire growth are possible, as was demonstrated by the Ricco fire.
-Atmospheric instability (high Haines Index) with high ERCs leads to extreme fire behavior.
-LCES is CRITICAL to safe suppression actions with high ERCs and high Haines Index.
-Spot fires will develop easily and be a factor in rate of spread.
-Begin all suppression actions with a safe and secure anchor point.
-Expect a heavy commitment of initial attack resources at or above the 90th percentile.
Responsible Agency: USFS
FF+5.0 build 20191211 02/19/2020-11:34 (C:\Users\acham\Box\...\BKF Pocket Cards 2020)
Design by NWCG Fire Danger Working Team



Fire Danger Area:

- Southern Black Hills
- Fire Wx Forecast Zone 322
- Red Canyon RAWS (395105)
  * Meets NWCG Wx Station Standards

Fire Danger Interpretation:

EXTREME -- Use extreme caution

High -- Watch for change

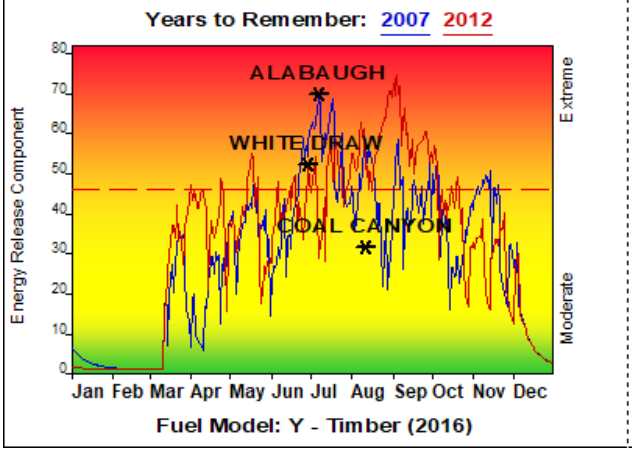
Moderate -- Lower Potential, but always be aware

Maximum -- Highest Energy Release Component by day for 2000 - 2019

Average -- shows peak fire season over 20 years (6945 observations)

90th Percentile -- 10% of the 6945 days from 2000 - 2019 had an Energy Release Component above 46

Local Thresholds - Watch out: Combinations of any of these factors can greatly increase fire behavior: **20' Wind Speed** over 15 mph, **RH** less than 25%, **Temperature** over 90



Remember what Fire Danger tells you:

- ☑ Energy Release Component gives seasonal trends calculated from 2 pm temperature, humidity, daily temperature & rh ranges, and precip duration.
- ☑ Wind is NOT part of ERC calculation.
- ☑ Watch local conditions and variations across the landscape -- Fuel, Weather, Topography.
- ☑ Listen to weather forecasts -- especially WIND.

Past Experience:

-Both the White Draw and the Alabaugh fires exhibited active crown fire runs at night.
-Even with ERCs below the 90th percentile rapid rates of spread and large fire growth are possible, as was demonstrated by the Coal Canyon fire.
-Atmoshperic instability (high Haines Index) with high ERCs leads to extreme fire behavior.
-LCES is CRITICAL to safe suppression actions with high ERCs and high Haines Index.
-Spot fires will develop easily and be a factor in rate of spread.
-Begin all suppression actions with a safe and secure anchor point.
-Expect a heavy commitment of initial attack resources at or above the 90th percentile.
-Expect rapid rates of spread in fine fuels.

Responsible Agency: USFS

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Design by NWCG Fire Danger Working Team