Cody Interagency Dispatch Zone

Interagency Fire Danger Operating Plan

Version 2022.v1.0

May 2022

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Cody Interagency Dispatch Zone

Interagency Fire Danger Operating Plan

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Cody Interagency Dispatch Zone

Interagency Fire Danger Operating Plan

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Cody Interagency Dispatch Zone

Interagency Fire Danger Operating Plan

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I. INTRODUCTION

PURPOSE

The Cody Interagency Fire Danger Operating Plan (FDOP) documents the decision-making process for agency administrators, fire managers, dispatchers, cooperators, and firefighters by establishing interagency planning, staffing and response levels. 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. 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.

OPERATING PLAN OBJECTIVES

1. Provide a tool for agency administrators, fire managers, dispatchers, 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 analyze 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.

FIRE DANGER OPERATING PLAN

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 Wind River/ Bighorn Basin District Fire Management Plan, Wind River Wildland Fire Management Plan, and the Bighorn and Shoshone National Forest's Fire Management Reference System; 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 Cody Interagency Dispatch Zone Fire Danger Operating Plan.

a. Staffing Plan

The Staffing Plan describes the expected needed and initial response actions based on expected risk (human and lightning) and predicted burning conditions. Decision points are identified and documented in the Cody Interagency Fire

Danger Operation Plan; the associated decisions and planned actions are in Appendix B.

b. 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 Cody Interagency Dispatch Zone Fire Danger Operating Plan; the associated decisions and planned actions are in Appendix C.

c. Prevention Plan

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

d. Restriction Plan

A Restriction Plan is an interagency document that outlines interagency coordination efforts regarding fire restrictions and closures. An interagency approach for initiating restrictions or closures helps provide consistency among the land management partners, while defining the restriction boundaries so they are easily distinguishable to the public. Based on the fire danger, managers may impose fire restrictions or emergency closures to public lands. Decision points when restrictions and/or closures should be considered are done in close coordination with the counties and therefore are not identified in this plan.

Although there is no formal interagency restriction plan for Wyoming, regular restriction coordination calls are scheduled as needed during the fire season as fire danger increases.

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 Cody Interagency Dispatch Zone Fire Danger Operating Plan. The number and type of suppression resources dispatched to a reported fire is documented in the associated Response Plan Run cards in Appendix A.

b. Local Mobilization Plan

The Cody Interagency Dispatch Zone Mobilization Guide identifies standard procedures, which guide the operations of multi-agency logistical support activity throughout the coordination system. The Mobilization Plan is intended to facilitate interagency dispatch coordination, ensuring the timeliest and most cost-effective incident support services available are provided. Communication between Units, GACCs, State, Regional Offices and other cooperative agencies are addressed. The Mobilization Plan can be located on the Dispatch Center web site (https://gacc.nifc.gov/rmcc/dispatch_centers/r2cdc/Mobilizaton_Guide/CDC_Mobilization_Guide.htm).

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:

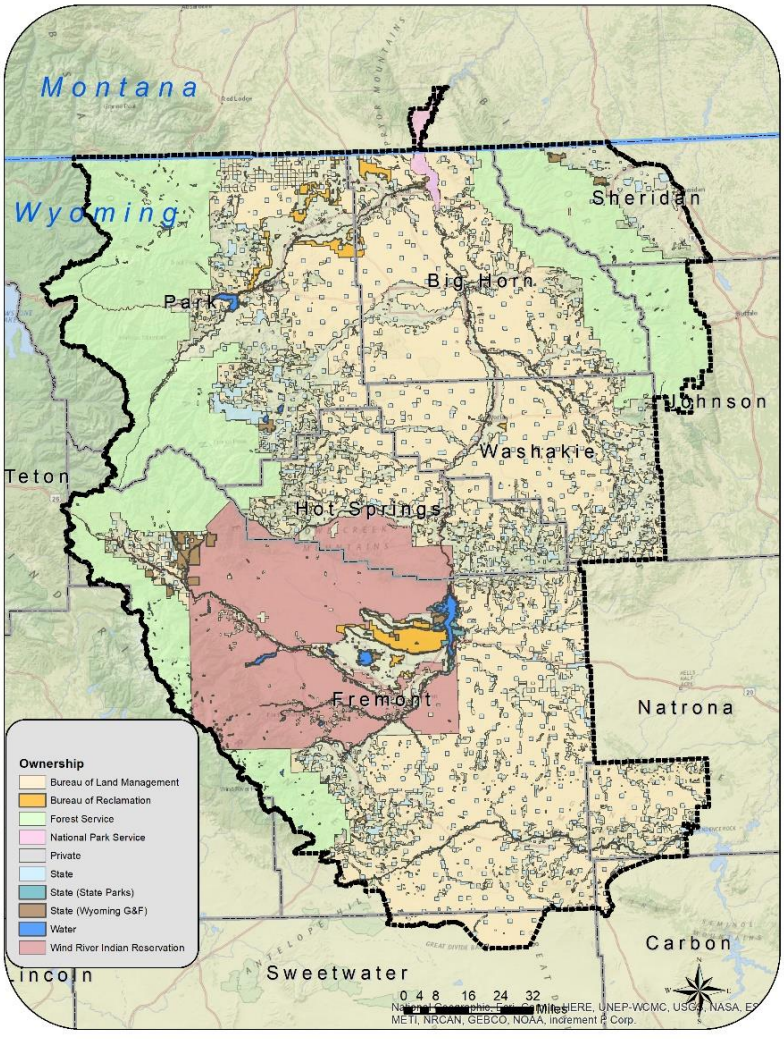
- U.S. Forest Service – Manual 5120 - Fire Management - Preparedness
- Bureau of Land Management – Manual 9211 - 1 - Fire Planning Handbook
- National Park Service – Manual 18, Chapter 5 – Preparedness
- Bureau of Indian Affairs – Wildland Fire and Aviation Program Management Operations Guide

II. FIRE DANGER PLANNING AREA INVENTORY AND ANALYSIS

ADMINISTRATIVE UNITS

This plan encompasses an area of approximately 15.2 million acres in northern Wyoming and southern Montana, with wildland fire management and suppression responsibilities shared among the BLM, USFS, NPS, Bureau of Indian Affairs (BIA), and local county and municipal cooperators. Northern Wyoming has a diverse landscape ranging from high desert to mountain peaks over 13,000 feet in elevation. Administrative units included in the Cody Interagency Dispatch Zone fire danger planning are shown in the overview map and table.

1. Overview Map



Map 1: Fire Danger Planning Area Overview

2. Ownership Table

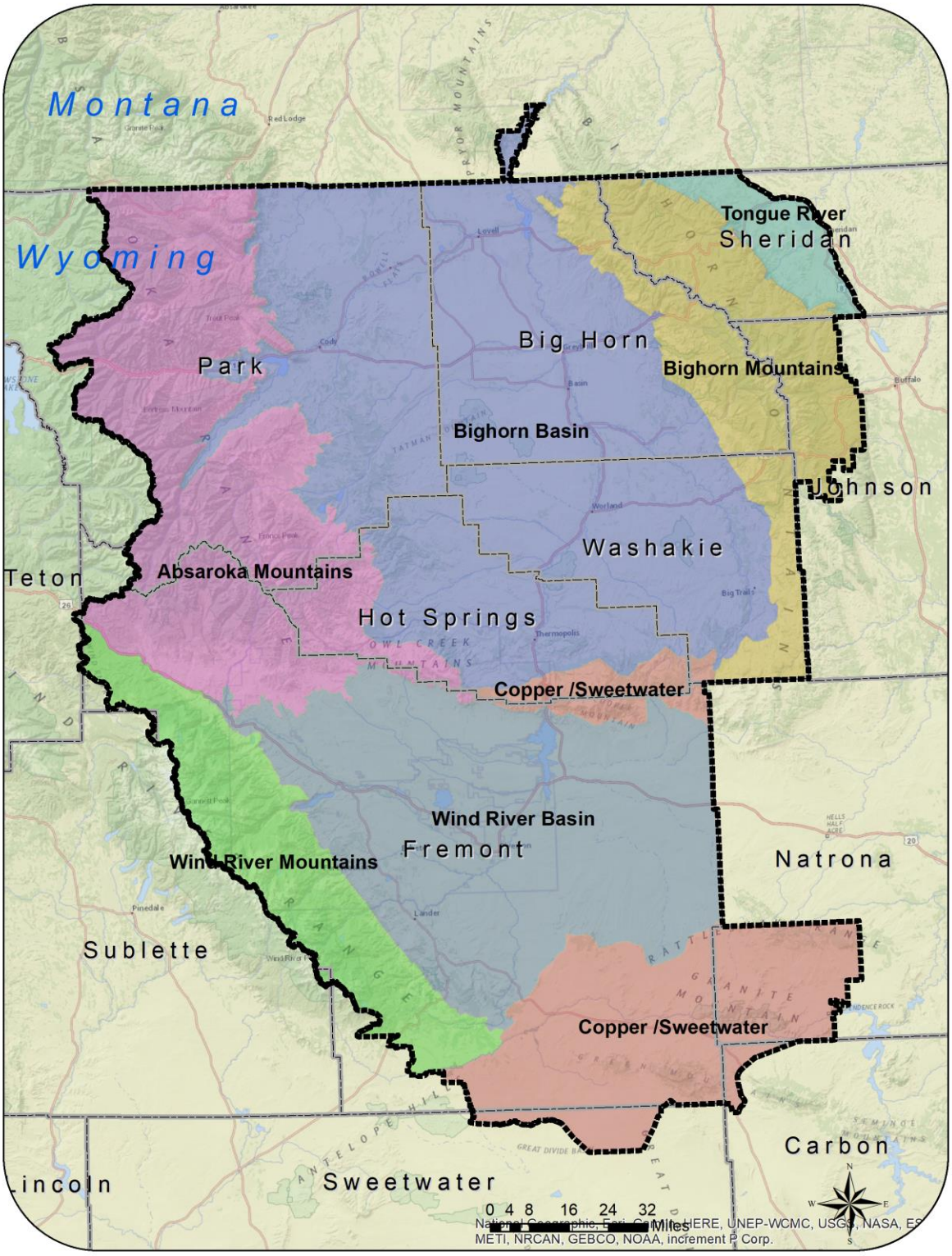
Agency	Acreage
Bureau of Indian Affairs (BIA) Wind River Agency	1,547,456
Bureau of Land Management (BLM) Wind River/Bighorn Basin District	5,590,579
USFS – Shoshone National Forest	2,466,580
USFS - Bighorn National Forest	1,115,161
Bureau of Reclamation	212,213
Wyoming State Lands	727,853
National Park Service – Bighorn National Recreation Area	45,127
Private	3,501,971
State Parks/Game & Fish	1,231
Other Ownership	9,846

Table 1: Ownership Table

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 (vegetation (Appendix K), and topography (Appendix J After these environmental factors were considered, the draft FDRAs were created but not edge-matched to existing administrative boundaries. Response Zones were created within each FDRA with varying response options (Appendix A). The Shoshone and Bighorn National Forests both have similar resource benefit objectives that differ from others within the zone that create varying responses within a FDRA and may cause some initial confusion for dispatch and operational personnel. A detailed description of each FDRA is in Appendix I. The final FDRA delineation is depicted below:

3. FDRA Map



Map 2: Fire Danger Rating Areas (FDRAs)

4. FDRA Table

Fire Danger Rating Area	Acreage	% of CDC Zone
FDRA 1 Absaroka Mountains	2,621,035	17
FDRA 2 Bighorn Basin	5,083,562	33
FDRA 3 Bighorn Mountains	1,511,092	10
FDRA 4 Copper/Sweetwater	1,787,353	12
FDRA 5 Tongue River	299,943	2
FDRA 6 Wind River Basin	2,831,028	19
FDRA 7 Wind River Mountains	1,109,378	7

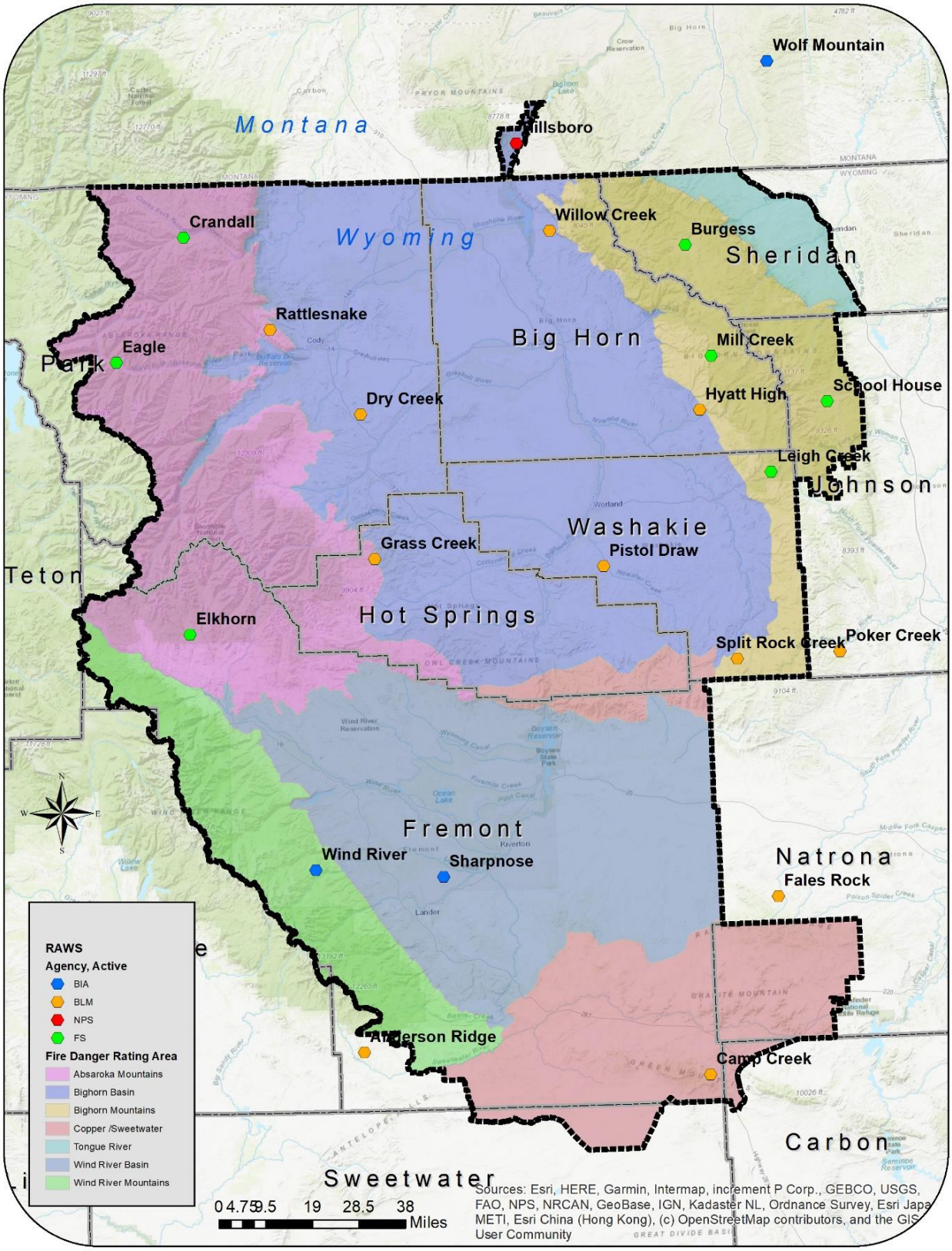
Table 2: Fire Danger Rating Areas (FDRAs)

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.

5. RAWS Map



Map 3: Remote Automated Weather Stations by Owner/FDRA

6. RAWS Catalogue Table (Active Stations Only)

STATION NAME	WIMS ID	NESDIS ID	AGENCY / OWNER	AVAIL DATA YEARS	ELEV	LATITUDE	LONGITUDE	REPORTING TIME
Anderson Ridge	481903	32787280	BLM/HDD	1988-2019	8,120	42.4372	-108.9456	13
Burgess	480403	32304060	FS/BHF	1993-2019	7,143	44.7861	-107.5358	13
Camp Creek	482010	3278546C	BLM/WRBBD	1996-2019	7,380	42.3403	-107.5728	13
Crandall	480213	32353130	FS/SHF	1993-2019	6,640	44.8503	-109.6114	13
Dry Creek*	480206	32B2CAEA	BLM/WRBBD	2020+	5,520	44.3191	-108.8965	13
Eagle	480214	326FA142	FS/SHF	1999-2019	7,500	44.4856	-109.8964	12
Elkhorn	481410	323A114E	FS/SHF	1989-2019	8,085	43.6794	-109.6111	12
Fales Rock	481504	3265 139E	BLM/HPD	1992-2019	6,380	42.8564	-107.2722	13
Grass Creek	480804	3264C70C	BLM/WRBBD	1991-2019	7,127	43.8914	-108.8537	13
Hillsboro	245609	FA643096	NPS/BHNRA	2003-2019	3,986	45.1039	-108.2197	13
Hyatt High	480307	3264D47A	BLM/WRBBD	1992-2019	5,670	44.2986	-107.5059	13
Leigh Creek	480906	32829234	FS/BHF	1998-2019	8,202	44.1067	-107.2239	13
Mill Creek	480306	323A0238	FS/BHF	1989-2019	8,898	44.4558	-107.4494	13
Pistol Draw	480902	32B23A6E	BLM/WRBBD	2016-2019	4,520	43.8492	-107.9228	13
Poker Creek	481003	3264E1E0	BLM/HPD	1992-2019	6,440	43.5694	-106.9783	12
Rattlesnake	480212	3278A4E8	BLM/WRBBD	1988-2019	8,401	44.5739	-109.2614	13
School House Park	481002	3239F5B2	FS/BHF	1989-2019	8,604	44.3064	-106.9819	12
Sharpnose	481412	AAB716BE	BIA WRA	2016-2019	5,555	42.9489	-108.6107	13
Split Rock Creek	480904	3278B79E	BLM/WRBBD	1988-2019	6,554	43.5614	-107.3950	12
Willow Creek*	480302	32B401E8	BLM/WRBBD	2020+	4,310	44.8436	-108.0950	13
Wind River	481411	52117480	BIA/WRA	1911-2019	9,235	42.978	-109.1221	13
Wolf Mountain	245105	5211411A	BIA/CA	2005-2019	4,886	45.3159	-107.1634	13

Table 3: RAWS Catalogue

*Willow Creek and Dry Creek RAWS were not used in the analysis as they have only a few years of data.

7. Special Interest Groups (SIGs)

Special Interest Group (SIG):	FDRA 1 Absaroka Mountains	
Station / WIMS Number	***Station Name***	***Weight***
480212	Rattlesnake	1.00
480213	Crandall	1.00
480214	Eagle	1.00
481410	Elkhorn	1.00

Table 4: FDRA #1 SIG

Special Interest Group (SIG):	FDRA 2 Bighorn Basin	
Station / WIMS Number	***Station Name***	***Weight***
480307	Hyatt High	1.00
480804	Grass Creek	1.00
480902	Pistol Draw	1.00
245609	Hillsboro	1.00

Table 5: FDRA #2 SIG

Special Interest Group (SIG):	FDRA 3 Bighorn Mountains	
Station / WIMS Number	***Station Name***	***Weight***
480306	Mill Creek	1.00
480403	Burgess	1.00
480906	Leigh Creek	1.00
481002	School House Park	1.00

Table 6: FDRA #3 SIG

Special Interest Group (SIG):	FDRA 4 Copper/Sweetwater	
Station / WIMS Number	***Station Name***	***Weight***
480904	Split Rock Creek	1.00
482010	Camp Creek	1.00
481903	Anderson Ridge	1.00
481003	Poker Creek	1.00

Table 7: FDRA #4 SIG

Special Interest Group (SIG):	FDRA 5 Tongue River	
Station / WIMS Number	***Station Name***	***Weight***
245105	Wolf Mountain	1.00

Table 8: FDRA #5 SIG

Special Interest Group (SIG):	FDRA 6 Wind River Basin	
Station / WIMS Number	***Station Name***	***Weight***
481412	Sharpnose	1.00
482010	Camp Creek	1.00
481504	Fales Rock	1.00

Table 9: FDRA #6 SIG

Special Interest Group (SIG):	FDRA 7 Wind River Mountains	
Station / WIMS Number	***Station Name***	***Weight***
481411	Wind River	1.00
481903	Anderson Ridge	1.00
481410	Elkhorn	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 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 behavior of the respective target group.

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.

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 depending upon the sensitivity of the target group to the implementation of the action, and ultimately change their behavior. 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*			
Agency	Zone Duty Officers and initial response resources	All causes	Increasing spread potential from any type of ignition	High	CDC retrieves actual and forecasted indices from WIMS and calculates the appropriate **Response Level** and provides that information on the Daily Report posted on the CDC website.	Adapting initial response capability to increasing ignition spread potential by automatically dispatching the number and kind of resources from Agency Run Cards.
Agency	Zone Duty Officers and initial response resources	All causes	Increasing spread potential from any type of ignition	High	CDC retrieves actual and forecasted indices from WIMS, calculates appropriate **Staffing Level** and provides that information on the Daily Report posted on the CDC website.	Initial response resources unavailable after work hours and/or on scheduled days off.

TARGET GROUP		IGNITION CAUSE		RELATIVE DEGREE OF CONTROL	COMMUNICATION METHODS	WORKLOAD DESCRIPTION
GENERAL	***SPECIFIC***	***GENERAL***	***SPECIFIC***			
Agency	Zone Duty Officers and CDC	All Causes	Increasing spread potential for any ignition or potential for multiple ignitions	High	CDC calculates the appropriate **Staffing Level** and **Preparedness Level** and provides that information on the Daily Report posted on the CDC website. Places orders for supplemental resources as requested.	Initial response resources limited or committed to multiple fires requiring ordering of supplemental resources.
Agency	Agency Administrators, Fire Management Officers, Duty Officers, Incident Commanders and CDC	1 - Lightning	Multiple Ignitions	Moderate	CDC will communicate new ignitions to Duty Officers and Incident Commanders will coordinate command and control within their area of operations. Duty Officers will communicate resource needs to CDC.	Staffing and management of multiple ignitions requires a shift of incident coordination to a localized area of operations to reduce congestion of dispatch communications system.
Public	Day Users, Overnight Campers	4- Campfire	Unattended (and escaped) campfires in undeveloped areas and developed recreation sites.	Low	**Adjective Fire Danger Rating** provided on the Daily Report posted on the CDC website, communicated to multiple audiences, with Intent is to raise awareness of potential fire danger in simple, easy to understand terms via press releases, social media and Fire Danger Signs. **Preparedness Level** posted on the Daily	Significant number of escaped campfires at dispersed and/or developed recreation sites. Campfires are abandoned when fuels are critically dry or during wind events.

TARGET GROUP		IGNITION CAUSE		RELATIVE DEGREE OF CONTROL	COMMUNICATION METHODS	WORKLOAD DESCRIPTION
GENERAL	*SPECIFIC*	*GENERAL*	*SPECIFIC*			
					Report posted on the CDC website. which may prompt the need to consider fire restrictions.	
Public	Private Landowners	5 - Debris Burning	Trespass fires from escaped agricultural or trash burns.	Moderate	**Adjective Fire Danger Rating** and **Preparedness Level** and possibly county or agency fire restrictions	The unit is experiencing a significant number of escaped fires from agriculture or trash burns. Press Releases and social media posts in coordination with county fire wardens and National Weather Service to raise awareness for escape potential
Industry	Commercial Operations	2- Equipment	Logging and Construction	High	Contract provisions monitored and enforced by designated representative	Equipment used for logging or road construction activities starting fires during operations.
Industry	Railroads, Oil and Gas developments, Electric Utilities, Ranching Operations	9 - Miscellaneous	Sparks from trains, downed powerlines, oil/gas facility fires, hay equipment sparks.	Moderate	Mitigation requirements in Special Use Permits verified and enforced	The unit is experiencing a significant number of wildfires from a variety of industrial related activities.

Table 11: Fire Workload Analysis Table

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.

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 (Jun – Sept). 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.

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.

DECISION SUMMARY TABLE

Target Group	Fire Danger Rating Area(s)	Statistical Cause	Climatological Breakpoints or Fire Business Thresholds	Index / Comp	NFDRS v4 Fuel Model	Workload Definition	Number of Decision Points	Preparedness Plan(s) to Modify Target Group Behaviour
Agency	All FDRA's	All	Fire Business Thresholds	ERC/BI	X/Y	Response Level	5	Response Plan
Agency	All FDRA's	All	Fire Business Thresholds	ERC/BI	X/Y	Staffing Level	5	Staffing Plan Draw-down Plan
Agency	All FDRA's	All	Fire Business Thresholds	ERC/IC	X/Y	Preparedness Level	5	Preparedness Plan
Public	All FDRA's	4 - Campfire	Fire Business Thresholds	ERC/IC	X/Y	Adjective Fire Danger Rating Level	5	Prevention Plan
Public	All FDRA's	5 – Debris Burning	Fire Business Thresholds	ERC/IC	X/Y	Adjective Fire Danger Rating Level	5	Prevention Plan
Industry	All FDRA's	9 - Miscellaneous	Fire Business Thresholds	ERC/IC	X/Y	Adjective Fire Danger Rating Level	5	Prevention Plan
Industry	All FDRA's	2 - Equipment	Fire Business Thresholds	ERC/IC	X/Y	Adjective Fire Danger Rating Level	5	Prevention Plan

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.

Decision points used in this FDOP were developed using FireFamily Plus Fire Probability Analysis which correlates fire occurrence with varying fuel models and NFDRS indices. Three (3) decision points using BI-X and BI-Y and five (5) decision points using ERC-X and ERC-Y were developed for each FDRA to determine the Response (or Dispatch) Level used in the Initial Response Plan and Staffing-Drawdown Plan. Five (5) decision points, using the Response Level and fire activity and weather triggers, were developed for the Staffing Level and Staffing Index used in the Preparedness Plan. Five (5) decision points were developed using ERC-X and ERC-Y and IC-X and IC-Y to determine the Adjective Fire Danger Rating Level.

To obtain the values determining the FDRA Response Level and Staffing Index, the 3-day average ERC (current and 2 previous days ERC) and next day forecasted BI will be combined in a matrix. To obtain the values determining FDRA Preparedness Levels, the 5-day average ERC will be combined with ignition risk, critical fire weather and fire activity. For Adjective Fire Danger Rating, the 3-day average ERC and IC will be used in a matrix.

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.

This FDOP used a combination of ERC and BI for fuel model X-Brush or Y-timber, to determine the Response Level for each FDRA. The 3-day average ERC (current and the two previous days) and forecasted (next day) BI are combined in a matrix to determine the Response Level for each FDRA. “Run Cards” in Wildcad will then use the Response Level for each FDRA to dispatch pre-determined resources for each FDRA. See Appendix A

FDRA 1 - Absaroka Mountains					
BI-Y					
34+	Low	Moderate	High	High	High
23-33	Low	Low	Moderate	Moderate	High
0-22	Low	Low	Low	Moderate	Moderate
ERC-Y	0-18	19-30	31-42	43-48	49+
FDRA 2 - Bighorn Basin East/West					
BI-X					
142+	Low	Moderate	High	High	High
58-141	Low	Low	Moderate	Moderate	High
0-57	Low	Low	Low	Moderate	Moderate
ERC- X	0-16	17-32	33-54	55-72	73+
FDRA 3 - Bighorn Mountains					
BI-Y					
40+	Low	Moderate	High	High	High
30-39	Low	Low	Moderate	Moderate	High
0-29	Low	Low	Low	Moderate	Moderate
ERC-Y	0-28	29-34	35-41	42-47	48+
FDRA 4 - Copper/Sweetwater					
BI-X					
121+	Low	Moderate	High	High	High
71-120	Low	Low	Moderate	Moderate	High
0-70	Low	Low	Low	Moderate	Moderate
ERC-X	0-16	17-29	30-41	42-57	58+
FDRA 5 - Tongue River					
BI-X					
83+	Low	Moderate	High	High	High
50-82	Low	Low	Moderate	Moderate	High
0-49	Low	Low	Low	Moderate	Moderate
ERC-X	0-14	15-25	26-37	38-53	54+
FDRA 6 - Wind River Basin					
BI-X					
148+	Low	Moderate	High	High	High
70-147	Low	Low	Moderate	Moderate	High
0-69	Low	Low	Low	Moderate	Moderate
ERC-X	0-19	20-35	36-54	55-71	72+
FDRA 7 - Wind River Mountains					
BI-Y					
36+	Low	Moderate	High	High	High
24-35	Low	Low	Moderate	Moderate	High
0-23	Low	Low	Low	Moderate	Moderate
ERC-Y	0-21	22-33	34-47	48-52	53+

Table 13. Response Level Matrix

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.

For this plan, calculation of the Staffing Level begins with the Response Level. For any Response Level the corresponding Staffing Level is determined by taking into consideration two additional factors:

1. Fire activity within the FDRA, including prescribed fire, current day initial attack or if any fires in extended attack until containment is met and,

2. Triggers forecasted to occur within the FDRA and associated Fire Weather Zone(s) for the next 24-hour period (next day and night forecast).

- Triggers (1 or more):
  - LAL 4, 5 or 6
  - Fire Weather Watch
  - Red Flag Warning

		All FDRA's					
Response Level		**1 – Low**		**2- Moderate**		**3 – High**	
Fire Activity	**No**	**SL 1**	**SL 2**	**SL 2**	**SL 3**	**SL 3**	**SL 4**
	Yes	**SL 2**	**SL 3**	**SL 3**	**SL 4**	**SL 4**	**SL 5**
Weather Trigger		**No**	**Yes**	**No**	**Yes**	**No**	**Yes**

Table 14. Staffing Level Matrix

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 ignition risk (LAL), critical fire weather forecasted in the next 12-24-hours, High Risk Triggers in the next 36-hr to 72-hr time period (Day 2-4), and current fire activity. Preparedness Levels will assist fire managers with more long-term (seasonal) decisions with respect to fire danger.

To determine Preparedness Level by FDRA or Zone, use the following chart:

1. Check the appropriate box for the current observed ERC range for each FDRA and follow the arrows to determine each FDRA Preparedness Level.

2. Check the appropriate box with the maximum number of boxes checked and then follow the arrows to the appropriate Zone Preparedness Level.

ERC Breakpoints	1	2	3	4	5
FDRA 1 Absaroka Mountains ERC-Y	0-18 ☐	19-30 ☐	31-42 ☐	43-48 ☐	49+ ☐
FDRA 2 Bighorn Basin ERC-X	0-16 ☐	17-32 ☐	33-54 ☐	55-72 ☐	73+ ☐
FDRA 3 Bighorn Mountains ERC-Y	0-28 ☐	29-34 ☐	35-41 ☐	42-47 ☐	48+ ☐
FDRA 4 Copper/ Sweetwater ERC-X	0-16 ☐	17-29 ☐	30-41 ☐	42-57 ☐	58+ ☐
FDRA 5 Tongue River ERC-X	0-14 ☐	15-25 ☐	26-37 ☐	38-53 ☐	54+ ☐
FDRA 6 Wind River Basin ERC-X	0-19 ☐	20-35 ☐	36-54 ☐	55-71 ☐	72+ ☐
FDRA 7 Wind River Mountains ERC-Y	0-21 ☐	22-33 ☐	34-47 ☐	48-52 ☐	53+ ☐
Staffing Index by FDRA or max Index for Zone	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Critical Fire Weather from Zone Fire Weather Forecast next 12-24 hrs (FWW, RFW, LAL 4-6)	No ☐	Yes ☐	No / Yes ☐	No / Yes ☐	No / Yes ☐
High Risk Trigger in the next 36 to 72-hrs from National 7-Day Significant Fire Potential	Yes/No ☐	No / Yes ☐	No / Yes ☐	No / Yes ☐	No/ Yes ☐
Fire Activity	No ☐	Yes ☐	No / Yes ☐	No / Yes ☐	No/Yes ☐
FDRA Preparedness Level	☐	☐	☐	☐	☒
CDC Zone PL from CDC Mob Guide	All FDRA's Low to Moderate	2+ FDRA's Moderate to High	2+ FDRA's High to Very High	3+ FDRA's Very High to Extreme	Majority of FDRA's are Very High to Extreme
Zone Preparedness Level	I ☐	II ☐	III ☐	IV ☐	V ☐

Table 15 FDRA Preparedness Level Matrix

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.

As with Response Level and Preparedness Level, the Adjective Fire Danger Rating Level can be obtained as a direct output in WIMS; however, the Adjective Rating from WIMS is strictly based on weather and climatological percentiles (80^{th}/95^{th} or 90^{th}/97th) with no regard to historical fire occurrence. The use of agency-specific climatological percentiles is not mandatory. The preferred method to determine Adjective Fire Danger Rating thresholds based on statistical correlation of weather observations AND fire occurrence. This FDOP will implement Adjective Fire Danger Rating based upon fire business thresholds, not climatological percentiles.

In addition to the Staffing Index calculated from ERC-X or ERC-Y, this FDOP uses Ignition Component for fuel model X or Y to calculate the adjective Fire Danger Rating Level. The 3-day average ERC and IC values (current and two previous days values) will be used to calculate fire danger for each FDRA.

FDRA 1 Absaroka Mountains					
3-day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-18	Low	Low	Low	Moderate	Moderate
19-30	Low	Moderate	Moderate	Moderate	High
31-42	Moderate	Moderate	High	High	Very High
43-48	Moderate	High	Very High	Very High	Extreme
49+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-3	4-15	16-29	30-40	41+
FDRA 2 Bighorn Basin					
3-day AVG ERC -X Staffing Index	Fire Danger Adjective Rating				
0-16	Low	Low	Low	Moderate	Moderate
17-32	Low	Moderate	Moderate	Moderate	High
33-54	Moderate	Moderate	High	High	Very High
55-72	Moderate	High	Very High	Very High	Extreme
73+	High	Very High	Very High	Extreme	Extreme
3- day AVG IC-X	0-4	5-16	17-25	26-37	38+
FDRA 3 Bighorn Mountains					
3- day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-28	Low	Low	Low	Moderate	Moderate
29-34	Low	Moderate	Moderate	Moderate	High
35-41	Moderate	Moderate	High	High	Very High
42-47	Moderate	High	Very High	Very High	Extreme
48+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-19	20-34	35-44	45+

FDRA 4 Copper/Sweetwater					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-16	Low	Low	Low	Moderate	Moderate
17-29	Low	Moderate	Moderate	Moderate	High
30-41	Moderate	Moderate	High	High	Very High
42-57	Moderate	High	Very High	Very High	Extreme
58+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-7	8-12	13-21	22-33	34+
FDRA 5 Tongue River					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-14	Low	Low	Low	Moderate	Moderate
15-25	Low	Moderate	Moderate	Moderate	High
26-37	Moderate	Moderate	High	High	Very High
38-53	Moderate	High	Very High	Very High	Extreme
54+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-10	11-19	20-38	39+
FDRA 6 Wind River Basin					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-19	Low	Low	Low	Moderate	Moderate
20-35	Low	Moderate	Moderate	Moderate	High
36-54	Moderate	Moderate	High	High	Very High
55-71	Moderate	High	Very High	Very High	Extreme
72+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-X	0-4	5-16	17-27	28-38	39+
FDRA 7 Wind River Mountains					
3-day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-21	Low	Low	Low	Moderate	Moderate
22-33	Low	Moderate	Moderate	Moderate	High
34-47	Moderate	Moderate	High	High	Very High
48-52	Moderate	High	Very High	Very High	Extreme
53+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-15	16-32	33-43	44+

Table 16. Adjective Fire Danger Rating Matrix

VI. FIRE DANGER OPERATING PROCEDURES

A. ROLES AND RESPONSIBILITIES

1. Agency Administrators

Approves plans, fire restrictions and closures as appropriate.

2. Fire Program Managers

Unit Fire Program Managers for each cooperating agency within the CIDC Zone will utilize this Fire Danger Operating Plan and NFDRS outputs as a tool in developing appropriate decision criteria for establishing appropriate fire related actions. It is the responsibility of the Unit Fire Managers to ensure this plan is utilized, maintained, and communicated.

3. Fire Danger Technical Group

Each participating agency will be responsible for providing an NFDRS technical specialist to participate in the maintenance, review, and update of this plan. The technical

specialists will monitor NFDRS to ensure validity, coordinate/communicate any problems, review plan implementation, coordinate revisions, present the plan as needed, and be available for NFDRS technical consultation. Specific items to be monitored are hourly station observations are accurately archived in WIMS, snow flag is turned off and on as appropriate, maintenance is occurring annually and proposing new sites where appropriate.

Agency	Technical Specialist
Cody Interagency Dispatch Center	Hal Bromley
Shoshone National Forest	Clint Dawson
Bighorn National Forest	Kevin Hillard
Wind River/Bighorn Basin BLM	Joel Peters
Wind River Agency	
Bighorn Canyon Recreation Area – NPS	Chip Collins

Table 17. FDOP Technical Specialists

4. Fire Weather Station Owners/Managers

Station Point of Contact (POC) are responsible for coordinating and/or accomplishing the following for their respective RAWS:

- Annual maintenance and updating/reporting in WIFM
- First responder services
- Ensuring quality data collection

WIMS owners are responsible for coordinating or accomplishing the following for their respective RAWS stations:

- Validating seasonal Snow Flags
- Validating and/or updating Staffing Index breakpoints

Station Name	WIMS ID	Agency/Owner	WFMI POC	WIMS Owner	WIMS Owner Id
Anderson Ridge	481903	BLM/HDD	Phil Lockwood	Mike Wengert	mwengert
Burgess	480403	FS/BHF	Kevin Hillard	Clint Dawson	clintdawson
Camp Creek	482010	BLM/WRBBD	Jamie Geerdes	Katie Williamson	kwilliamson
Crandall	480213	FS/SHF	Clint Dawson	Clint Dawson	clintdawson
Eagle	480214	FS/SHF	Clint Dawson	Clint Dawson	clintdawson
Elkhorn	481410	FS/SHF	Clint Dawson	Clint Dawson	clintdawson
Fales Rock	481504	BLM/HPD	Zeb McWilliams	Eric Chapman	echapman
Grass Creek	480804	BLM/WRBBD	Rance Neighbors	Katie Williamson	kwilliamson
Hillsboro	245609	NPS/BHNRA	Eric Neiswanger	Clint Dawson	clintdawson
Hyatt High	480307	BLM/WRBBD	Rance Neighbors	Katie Williamson	kwilliamson
Leigh Creek	480906	FS/BHF	Jon Warder	Clint Dawson	clintdawson
Mill Creek	480306	FS/BHF	Jon Warder	Clint Dawson	clintdawson
Pistol Draw	480902	BLM/WRBBD	Rance Neighbors	Katie Williamson	kwilliamson

Poker Creek	481003	BLM/HPD	Zeb McWilliams	Eric Chapman	echapman
Rattlesnake	480212	BLM/WRBBD	Tim Haas	Katie Williamson	kwilliamson
School House Park	481002	FS/BHF	Jon Warder	Clint Dawson	clintdawson
Sharpnose	481412	BIA WRA	Dana Cook	Clint Dawson	clintdawson
Split Rock Creek	480904	BLM/WRBBD	Rance Neighbors	Katie Williamson	kwilliamson
Wind River	481411	BIA/WRA	Robert Jones	Clint Dawson	clintdawson
Wolf Mountain	245105	BIA/CA	Randy PrettyOnTop		Apollock
Willow Creek	480302	BLM/WRBBD	Tim Haas	Katie Williamson	kwiliamson
Dry Creek	480206	BLM/WRBBD	Tim Haas	Katie Williamson	kwilliamson

Table 18: RAWS POC/Owner

5. Dispatch/Communication Center

   Cody Interagency Dispatch Center is responsible for daily monitoring, publishing all-weather station inputs, and posting of fire danger outputs. Fire weather forecasts and NFDRS output information is to be disseminated to all firefighting personnel as follows:

   - The morning fire weather planning forecast is available to all resources on the web; if needed, field units may request this information via radio from CDC.
   - The afternoon fire weather planning forecast will be broadcast upon request from resources in the field. NFDRS outputs, specifically ERC values and percentile and Fire Danger Rating will be posted, during peak fire season (June – September).
   - Review all inputs for each station for accuracy and assure there are no missing station observations. The WFMI POC will be contacted for stations with missing or questionable data.
   - Maintain weather station catalogues in WIMS.
   - Provide adequate training to dispatch personnel that will be editing and validating WIMS inputs/outputs.
   - Contact appropriate WIMS Station owners to obtain WIMS access for current dispatch personnel.
   - Enter snow flags (Y or N), Verify with agency technical specialists prior to changing snow flag value.

6. Duty Officers

   A Duty Officer is defined as an FMO, AFMO, FOS, or whoever the local unit designated who can provide input and guidance regarding planning and dispatch levels. Duty Officers are responsible for the implementation of this plan; ensuring decisions are consistent with the intent of the plan. It is the Duty Officers role to interpret and modify response, staffing and daily preparedness levels as required by factors not addressed by this plan. Modifications of the preparedness and/or dispatch levels must be coordinated through the Dispatch Center Manager or acting. Duty Officers will assure that their personnel understand NFDRS outputs and how to apply them to daily operations. These indices and their implications to the day's operations can be discussed each morning by all field personnel as part of their daily briefings.

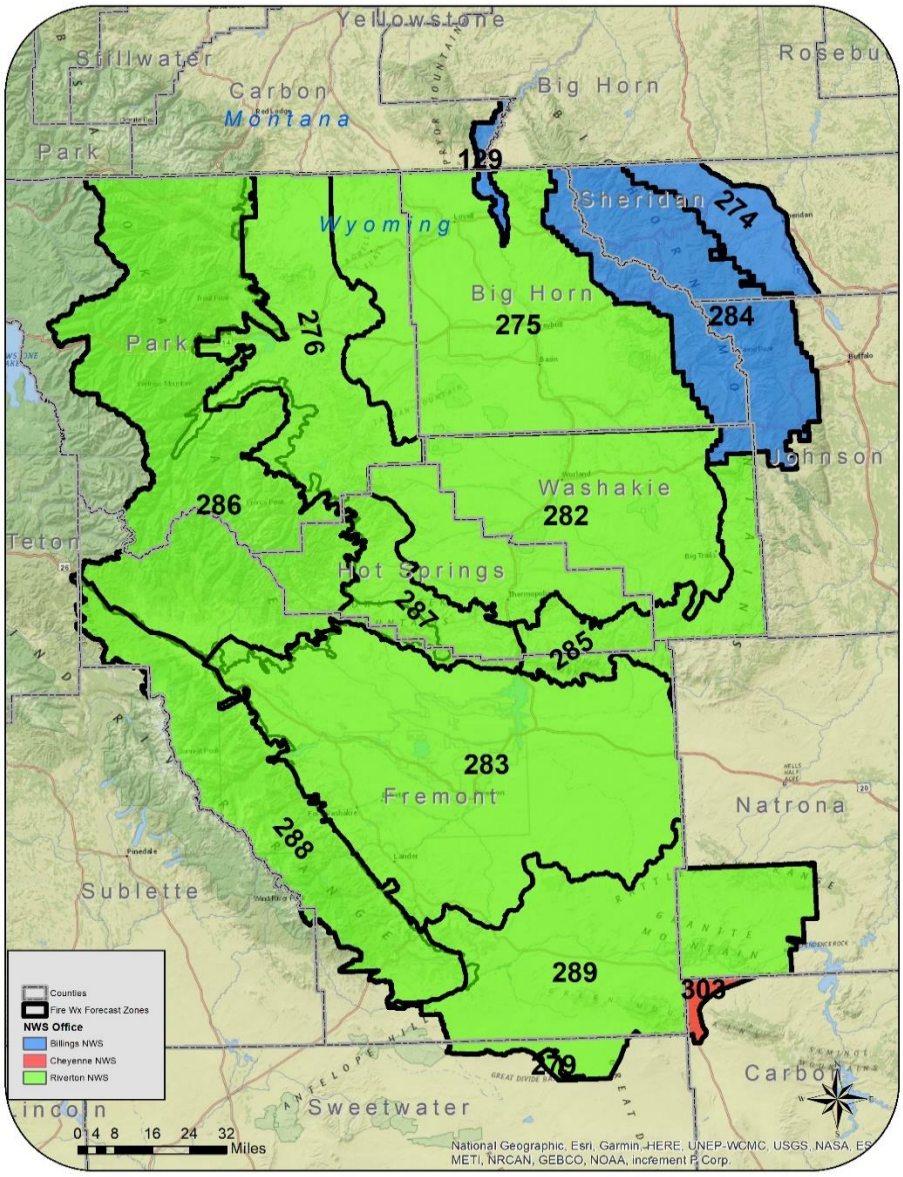
7. GIS Specialists

   Assist with mapping needs as requested.

8. National Weather Service

   Weather planning forecasts and products are provided by three National Weather Service Offices, Cheyenne, Riverton, and Billings.

   The National Weather Service in Riverton is responsible for providing fire weather support for western-central-northern Wyoming. Its area of responsibility covers Wyoming fire weather zones 275 through 283, 285 through 289, 300. The National Weather Service in Billings is responsible for providing fire weather support for the Bighorn Forest, Sheridan County and the Bighorn Canyon Recreation Area, zones 129, 284 and 274. The National Weather Service in Cheyenne is responsible for providing fire weather support for south central and eastern Wyoming, covering zone 303 within the Cody Dispatch Zone.



Map 4: NWS Fire Weather Forecast Zones and Forecast Office

9. Geographic Area Predictive Service / Meteorologist

   Rocky Mountain Area Predictive Services provides decision support for operational management and strategic planning for firefighting resources. Specific needs can be coordinated directly with RMA PS. Products that can be used in conjunction with this plan are below:

   Seasonal Outlook for Rocky Mountain Area

   7-Day Fire Weather Outlook for Rocky Mountain Area

National 7-Day Fire-Potential Outlook

Rocky Mountain Area NFDRS RAWS Graphs by PSA

10. Education / Mitigation / Prevention Specialists

    Education and Mitigation Specialists can use this plan to keep the general public, industry and landowners informed of fire danger throughout the fire season. Information to be provided include press releases, social media posts, website posts, posters and public contacts.

    Changes in adjective fire danger ratings will be communicated to agency PIO's.

    Agencies will be responsible for accurately reflecting fire danger on their own fire danger signs throughout the zone.

    As fire danger increases, each agency will be responsible for prevention activities and will coordinate restrictions with adjacent agencies.

11. Fire Danger Technical Group

    Annually review this plan and update as necessary.

B. SEASONAL SCHEDULE

Each station owner will contact CDC in the fall if a Snow Flag is necessary for any weather station within their FDRA when snow cover is sufficient and likely to remain for an extended period of time. In the spring each station owner will notify CDC to remove the Snow Flag when a sufficient amount of the FDRA is snow free, not necessarily when the snow is gone just at the station. Each station represents a portion or all of the FDRA dependent upon the number of stations within the FDRA.

C. DAILY SCHEDULE

Cody Dispatch Center follows a daily operating checklist which identifies processes and procedures for implementation of this FDOP.

D. WEATHER STATION MONITORING AND MAINTENANCE

Each agency is responsible for the annual maintenance and calibration of their RAWS. The Remote Sensing Fire Weather Support Unit (RSFWSU) located at the National Interagency Fire Center (NIFC) maintains an inventory of and calibrates all sensors for permanent RAWS owned by the USFS and NPS units. RSFWSU also provides annual scheduled onsite maintenance for permanent BLM RAWS and first responder services for malfunctions of these stations. Portable BLM RAWS must be sent to RSFWSU for annual maintenance. USFS and NPS units must request scheduled exchange of calibrated RAWS sensors from RSFWSU and replace these sensors on site while performing annual maintenance.

Forest Technology Systems (FTS) provides annual scheduled onsite maintenance for permanent BIA RAWS, and first responder services for malfunctions of these stations. For portable RAWS, USFS units coordinates with RSFWSU to either ship entire portable RAWS or exchange calibrated RAWS sensors from RSFWSU and replace these sensors during annual maintenance. USFS provides first responder services for their portable stations.

STATION NAME	WIMS ID	AGENCY / OWNER	RSFWU	FTS	First Responder
Anderson Ridge	481903	BLM/HDD	Full maintenance on site		RSFWSU
Burgess	480403	FS/BHF	Sensor calibration and exchange		Agency
Camp Creek	482010	BLM/WRBBD	Full maintenance on site		RSFWSU
Crandall	480213	FS/SHF	Sensor calibration and exchange		Agency
Eagle	480214	FS/SHF	Sensor calibration and exchange		Agency
Elkhorn	481410	FS/SHF	Sensor calibration and exchange		Agency
Grass Creek	480804	BLM/WRBBD	Full maintenance on site		RSFWSU
Hillsboro	245609	NPS/BHNRA	Sensor calibration and exchange		Agency
Hyatt High	480307	BLM/WRBBD	Full maintenance on site		RSFWSU
Leigh Creek	480906	FS/BHF	Sensor calibration and exchange		Agency
Mill Creek	480306	FS/BHF	Sensor calibration and exchange		Agency
Pistol Draw	480902	BLM/WRBBD	Full maintenance on site		RSFWSU
Rattlesnake	480212	BLM/WRBBD	Full maintenance on site		RSFWSU
School House Park	481002	FS/BHF	Sensor calibration and exchange		Agency
Sharpnose	481412	BIA WRA		Full maintenance on site	FTS
Split Rock Creek	480904	BLM/WRBBD	Full maintenance on site		RSFWSU
Wind River	481411	BIA/WRA		Full maintenance on site	FTS

Wolf Mountain	245105	BIA/CA		Full maintenance on site	FTS
Poker Creek	481003	BLM/HPD	Full maintenance on site		RSFWSU
Fales Rock	481504	BLM/HPD	Full maintenance on site		RSFWSU
BHF1 Portable		FS/BHF	Sensor calibration and exchange		Agency
Micro BLM #1 (Worland)		BLM/WRBBD	All maintenance at RSFWSU		Agency
SHF1 - FTS		FS/SHF	Sensor calibration and exchange		Agency
SHF2 - Portable		FS/SHF	Sensor calibration and exchange		Agency
SHF4 FTS Portable		FS/SHF	Sensor calibration and exchange		Agency
SHF5 Portable		FS/SHF	Sensor calibration and exchange		Agency
WRBB Port #1			All maintenance at RSFWSU		Agency
WRBB Port #2			All maintenance at RSFWSU		Agency
Willow Creek	480302	BLMWRBBD	Full maintenance on site		RSFWSU
Dry Creek	480206	BLMWRBBD	Full maintenance on site		RSFWSU

Table 19. RAWS Owner and Maintenance Method

VII. FIRE DANGER PROGRAM NEEDS

A. WEATHER STATIONS

- Maintain all weather stations utilized for this analysis to NFDRS standards. Monitor station observations and input missing data into WIMS to maintain station integrity for future updates or analysis.
- Continue monitoring if current stations are adequately collecting dispatch zone climatological data. Consider additional stations in area's not well represented by current stations (i.e. FDRA 5 – Tongue River, FDRA 6 – Wind River Basin).

- The BLM have installed two new stations within FDRA2 – Bighorn Basin, Willow Creek RAWS, July 2020– NW corner of the FDRA and Dry Creek, May 2020, south of Cody. Consider utilizing these stations in future analysis when they have 5-years + observations.

B. DATA MANAGEMENT

- Ensure fire report data is accurately reviewed and reported in the appropriate agency databases. Each agency program managers shall monitor the fire data annually for accuracy and completeness.
- Consider utilizing county fire occurrence data for future analysis to depict the full fire occurrence picture within each FDRA.

C. TRAINING

- All fire personnel should be trained at annual fire refreshers on the basic understanding of NFDRS and the use of pocket cards and/or seasonal trend analysis.
- Maintain one to two individuals per agency with RAWS maintenance training when the agency is responsible for first responder and annual maintenance. Consider additional hands-on training to provide additional first responder capacity within the zone.
- Ensure at least one individual at CDC, and each agency representative attends S-491 – Intermediate National Fire Danger Rating System once updated with NFDRS v4. To increase capacity, send more individuals to the training.
- Maintain at least one individual from the Fire Danger Technical Group, having taken the Advanced National Fire Danger Rating System. Each agency representative should have taken the advanced course. To increase capacity, send more individuals to the training.
- Provide NFDRS training to area cooperators for awareness and understanding of its use and capability.

D. PARTNERSHIPS

- Recommend integrating all fire managers and suppression resources within the CDC Zone NFDRS planning process including all cooperators and other state agencies.

APPENDICES

Appendix A **RESPONSE PLAN**

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

Response Level

Response levels (e.g. "Low", "Moderate", and "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. Response Level thresholds were determined using FireFamilyPlus. A statistical analysis of fire occurrence and historical weather was completed for each FDRA. This plan uses a combination of ERC and BI for fuel model X/Y- Brush/Timber, to determine the Response Level for each FDRA. ERC values calculated as a 3-day average, using current day and previous 2 days to calculate. For BI, the forecasted values for next day will used. Each agency will use the same Response Levels calculated for each FDRA in response to all wildland fires within the dispatch zone.

Response Levels will be established for each day utilizing the Response Level matrix. Each FDRA has an assigned Special Interest Group (SIG) for the purposes of calculating the daily response level (see Appendix G for analysis and decision point range determinations).

Duty officers retain the discretion to set their unit to a different response level than indicated by the calculated value for any given fire day, or to modify the response level for any given incident.

FDRA	Effective Dates
FDRA 1 – Absaroka Mountains	June 1 -October 31
FDRA 2 – Bighorn Basin	March 1 – October 31
FDRA 3 – Bighorn Mountains	June 1 – October 31
FDRA 4 – Copper/ Sweetwater	May 1 – October 31
FDRA 5 - Tongue River	March 1 – October 31
FDRA 6 – Wind River Basin	March 1 – October 31
FDRA 7 – Wind River Mountains	June 1 – October 31

Table 1: Response Plan Effective Dates

Outside the effective dates, notification of smoke reports will be made directly to the appropriate jurisdictional duty officer.

FDRA 1 - Absaroka Mountains					
BI-Y					
34+	Low	Moderate	High	High	High
23-33	Low	Low	Moderate	Moderate	High
0-22	Low	Low	Low	Moderate	Moderate
ERC-Y	0-18	19-30	31-42	43-48	49+
FDRA 2 - Bighorn Basin East/West					
BI-X					
142+	Low	Moderate	High	High	High
58-141	Low	Low	Moderate	Moderate	High
0-57	Low	Low	Low	Moderate	Moderate
ERC- X	0-16	17-32	33-54	55-72	73+
FDRA 3 - Bighorn Mountains					
BI-Y					
40+	Low	Moderate	High	High	High
30-39	Low	Low	Moderate	Moderate	High
0-29	Low	Low	Low	Moderate	Moderate
ERC-Y	0-28	29-34	35-41	42-47	48+
FDRA 4 - Copper/Sweetwater					
BI-X					
121+	Low	Moderate	High	High	High
71-120	Low	Low	Moderate	Moderate	High
0-70	Low	Low	Low	Moderate	Moderate
ERC-X	0-16	17-29	30-41	42-57	58+
FDRA 5 - Tongue River					
BI-X					
83+	Low	Moderate	High	High	High
50-82	Low	Low	Moderate	Moderate	High
0-49	Low	Low	Low	Moderate	Moderate
ERC-X	0-14	15-25	26-37	38-53	54+
FDRA 6 - Wind River Basin					
BI-X					
148+	Low	Moderate	High	High	High
70-147	Low	Low	Moderate	Moderate	High
0-69	Low	Low	Low	Moderate	Moderate
ERC-X	0-19	20-35	36-54	55-71	72+
FDRA 7 - Wind River Mountains					
BI-Y					
36+	Low	Moderate	High	High	High
24-35	Low	Low	Moderate	Moderate	High
0-23	Low	Low	Low	Moderate	Moderate
ERC-Y	0-21	22-33	34-47	48-52	53+

Table 2: Response Level Matrix

The run cards will be used when a wildfire is reported within the effective dates and doesn't meet the discretionary smoke report criteria listed below. Using the reported information, dispatch will plot the fire location, determine the closest forces, and dispatch the appropriate resources per the run card. After the initial dispatch of resources, all affected duty officer's will be notified. Once a qualified Incident Commander (IC) arrives at the incident and completes an initial size-up, the appropriate jurisdictional duty officer will be assigned.

Procedures
During business hours, the dispatch center will dispatch the closest available resource based on the Response Level for that day.
After hours, the dispatch center will contact the appropriate jurisdictional duty officer, and they will determine the appropriate response.

Discretionary Smoke Reports:
When any of the following smoke reports are received, the response will not follow the run card and the jurisdictional duty officer will be contacted to determine the appropriate response.

- Federal Aviation Administration (FAA) report
- Abandoned campfires when information states the fire is within the fire ring
- Incidents that local VFD's have responded too and are on scene requesting no additional resources.

Lightning Plan
Periodically the dispatch zone gets widespread lightning activity resulting in numerous fire starts, more common in the basins but could occur elsewhere. When this occurs, it is not possible to dispatch the number and type of resources called for on the run card to each fire.

Under circumstances where multiple fire starts are occurring or likely to occur (forecasted LAL=6) and the FDRA is at a response level of moderate to high, the run card system can be suspended and guidance provided by the appropriate jurisdictional duty officer for initial response to new starts. For large areas, it is desired that this occur at the LMAC level, so the effort is coordinating between dispatch and the agency duty officers.

Duty officers should consider the following priorities for resource allocation during lightning mode:

1. Direct threat to human life
2. Direct threat to homes or communities
3. Direct threat to other high value infrastructure or improvements
4. Threat to identified sage grouse protection area's
5. Other threats

Until such time as duty officers are able to provide coordinated direction to the dispatch center, the dispatch supervisor in charge is authorized to determine the fire priorities based on given direction and to make modifications to the run card response during multiple start events.

During circumstances where there are no longer resources available to be dispatched to a new smoke report, the dispatch center will notify the appropriate duty officer of each new report. Duty officers will consider the above priorities and make the determination of staffing adjustments and provide guidance to the dispatch center for any new fire starts.

FDRA 1 Absaroka Mountains IA Response Plan	Dispatch Action Based on Response Level					
	BI-Y					
	34+	Low	Moderate	High	High	High
	23-33	Low	Low	Moderate	Moderate	High
	0-22	Low	Low	Low	Moderate	Moderate
	ERC-Y	0-18	19-30	31-42	43-48	49+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	Respond 1	Respond 1	Respond 2
ICT4			Respond 1
ICT3			
Helicopter			Respond 1 if in zone
Air Attack w/ATGS			Respond 1 if in zone
Dozer			
SEAT(s)			
Air Tanker			
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.		
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.		

Special Instructions for Dispatch/Areas of Concern

Reference Shoshone National Forest Preparedness, Staffing and Wildfire Response Guide for specific actions based on strategic objectives from the Shoshone NF Land Management Plan.

On Wind River Agency jurisdictional lands this response plan is not applicable.

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

Strategic Objective	Response Options
Full Suppression/Resource Protection	Suppression response based on the safest, most effective, and cost-efficient actions to contain and control fires as quickly as possible.
Resource Protection and/or Benefit	Protect values identified in the Forest Plan as well as adjacent private property or other ownerships. Depending on location, cause, and time of year resource benefit objectives are an option in combination with protection objectives.
Resource Benefit	Manage natural ignitions to accomplish resource benefit objectives. There may be values present or threatened that may need to be protected with point or zone protection strategies.

Within Shoshone National Forest boundary utilize the following special instructions.

Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

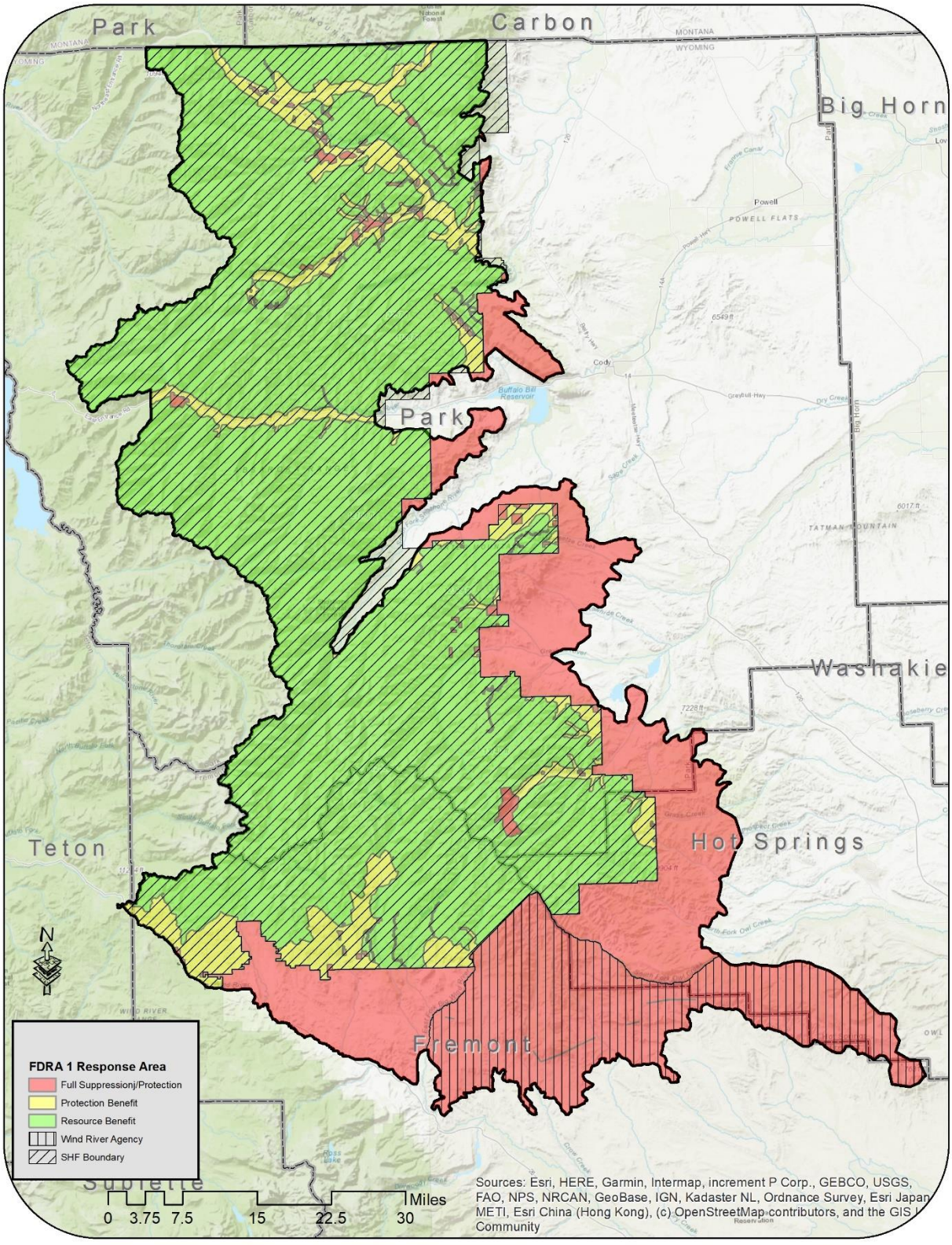
Outside Shoshone NF the strategic objective is full suppression /resource protection.

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
The initial response to wildfires will require an assessment of the threat to values to be protected from fire and whether the fire may also be a candidate that could be manage for resource benefit objectives. The assessment begins immediately by evaluating the cause and location of the fire relative to resource values. Commensurate with the assessment, initial response resources are dispatched to a fire under the assumption that the fire is to receive a suppression response unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response.

Resource Benefit - The primary response to wildfires are to take advantage of opportunities to manage natural ignitions to accomplish resource benefit objectives identified in the Forest Plan. The strategic area is comprised primarily of designated wilderness and other backcountry areas with little or no road access and impacts to resources from unwanted fires is often low or short-term. There may be values present or threatened that may need to be protected. Values in the backcountry are often isolated and can be protected with point or zone protection strategies. Fires can be long-term events and it is recognized that there may be values distant to the fire that may eventually be threatened. The decision to

	manage fire for resource benefit objectives include long-term fire assessments that consider the probability of a fire reaching distant values and the probability of success in protecting the values. Initial response to fires will require an assessment as to whether the fire is a candidate to manage for resource benefit objectives. The assessment begins immediately by evaluating the probable cause and location of the fire relative to resource values. Initial response resources are dispatched to a fire under the assumption that the fire is a potential wildland fire use candidate and would not begin suppression actions unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response. Unwanted fires that escape initial response are evaluated for their potential impacts to values that are near and distant. In situations where values are low or the probability of values impacted are low and/or defensible, management responses may consist of less aggressive suppression actions such as monitoring, point or zone protection, and/or confinement.

Table 3: FDRA 1 Response Action



Map 1. FDRA 1 Response Plan Map

FDRA 2 Bighorn Basin IA West Response Plan	Dispatch Action Based on Response Level					
	BI-X					
	142+	Low	Moderate	High	High	High
	58-141	Low	Low	Moderate	Moderate	High
	0-57	Low	Low	Low	Moderate	Moderate
	ERC-X	0-16	17-32	33-54	55-72	73+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	Respond 1	Respond 1	Respond 2
ICT4		Respond 1	Respond 1
ICT3			
Helicopter			Respond 1 if in zone
Air Attack w/ATGS			Respond 1 if in zone
Dozer			Respond 1 if in zone
SEAT(s)			
Air Tanker			

Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch. Engine Reponses can be coordinated with Cooperators.
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.

Special Instructions for Dispatch/Areas of Concern

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

Strategic Objective	Response Options
Full Suppression/Resource Protection	Suppression response based on the safest, most effective, and cost-efficient actions to contain and control fires as quickly as possible.
Resource Protection and/or Benefit	Protect values identified in the Forest Plan as well as adjacent private property or other ownerships. Depending on location, cause, and time of year resource benefit objectives are an option in combination with protection objectives.
Resource Benefit	Manage natural ignitions to accomplish resource benefit objectives. There may be values present or threatened that may need to be protected with point or zone protection strategies.

Within Shoshone National Forest boundary utilize the following special instructions.

Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

Outside Shoshone NF the strategic objective is full suppression /resource protection

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
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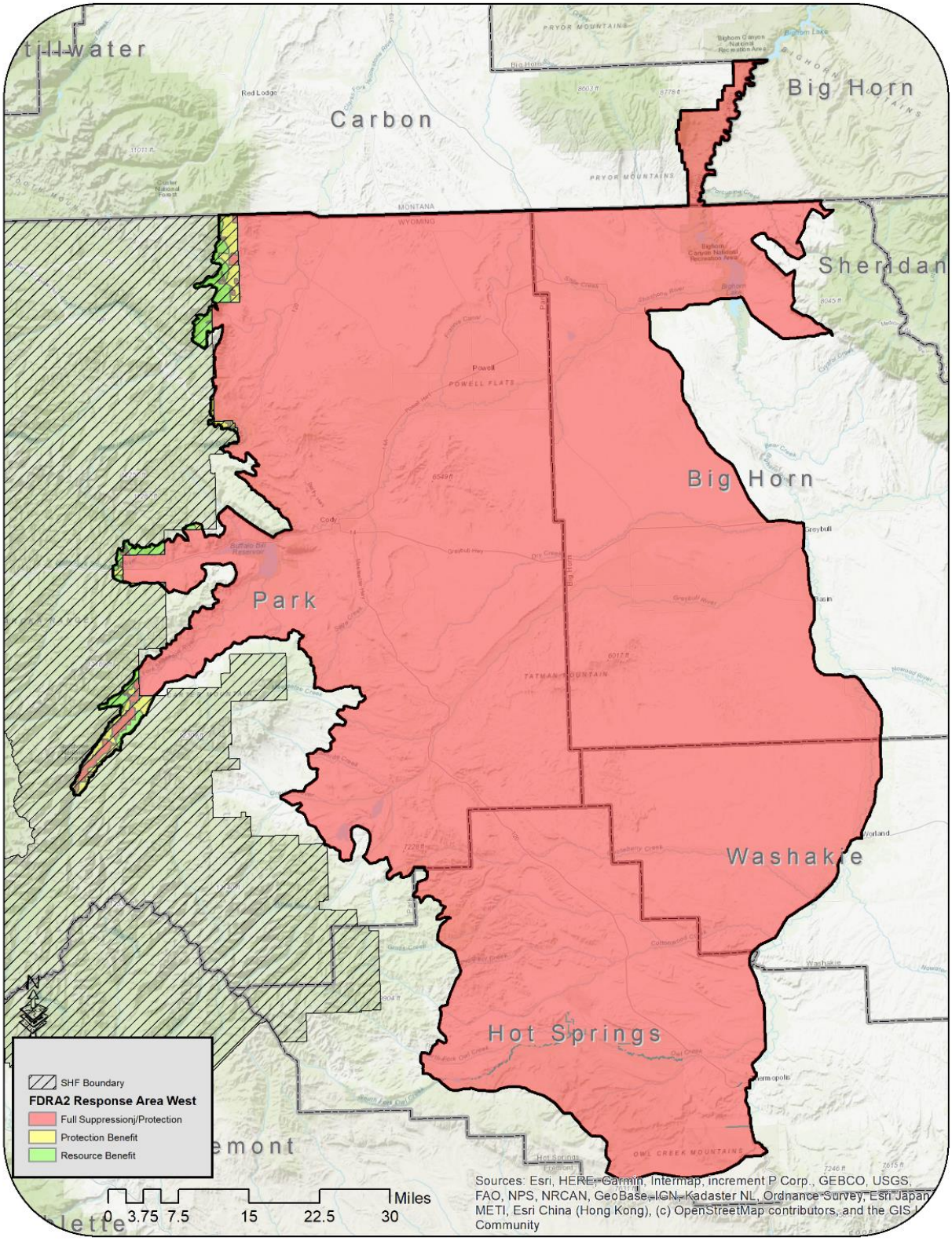
Resource Benefit - The primary response to wildfires are to take advantage of opportunities to manage natural ignitions to accomplish resource benefit objectives identified in the Forest Plan. The strategic area is comprised primarily of designated wilderness and other backcountry areas with little or no road access and impacts to resources from unwanted fires is often low or short-term. There may be values present or threatened that may need to be protected. Values in the backcountry are often isolated and can be protected with point or zone protection strategies. Fires can be long-term events and it is recognized that there may be values distant to the fire that may eventually be threatened. The decision to manage fire for resource benefit objectives include long-term fire assessments that consider the probability of a fire reaching distant values and the probability of success in protecting the values.

	Initial response to fires will require an assessment as to whether the fire is a candidate to manage for resource benefit objectives. The assessment begins immediately by evaluating the probable cause and location of the fire relative to resource values. Initial response resources are dispatched to a fire under the assumption that the fire is a potential wildland fire use candidate and would not begin suppression actions unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response. Unwanted fires that escape initial response are evaluated for their potential impacts to values that are near and distant. In situations where values are low or the probability of values impacted are low and/or defensible, management responses may consist of less aggressive suppression actions such as monitoring, point or zone protection, and/or confinement.

Table 4: FDRA 2 West Response Action



Map 2. FDRA 2 West Response Plan Map

FDRA 2 Bighorn Basin IA East Response Plan	Dispatch Action Based on Response Level					
	BI-X					
	142+	Low	Moderate	High	High	High
	58-141	Low	Low	Moderate	Moderate	High
	0-57	Low	Low	Low	Moderate	Moderate
	ERC-X	0-16	17-32	33-54	55-72	73+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	Respond 1	Respond 2	Respond 3
ICT4		Respond 1	Respond 1
ICT3			Respond 1
Helicopter			Respond 1 if in zone
Air Attack w/ATGS		Respond 1 if in zone	Respond 1 if in zone
Dozer			Respond 1 if in zone
SEAT(s)			
Air Tanker			

Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch. Engine Reponses can be coordinated with Cooperators.
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.

Special Instructions for Dispatch/Areas of Concern

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

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Full Suppression/Resource Protection	Suppression response based on the safest, most effective, and cost-efficient actions to contain and control fires as quickly as possible.
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Resource Benefit	Manage natural ignitions to accomplish resource benefit objectives. There may be values present or threatened that may need to be protected with point or zone protection strategies.

Within Bighorn National Forest boundary utilize the following special instructions.

Outside Bighorn NF the strategic objective is full suppression /resource protection

Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
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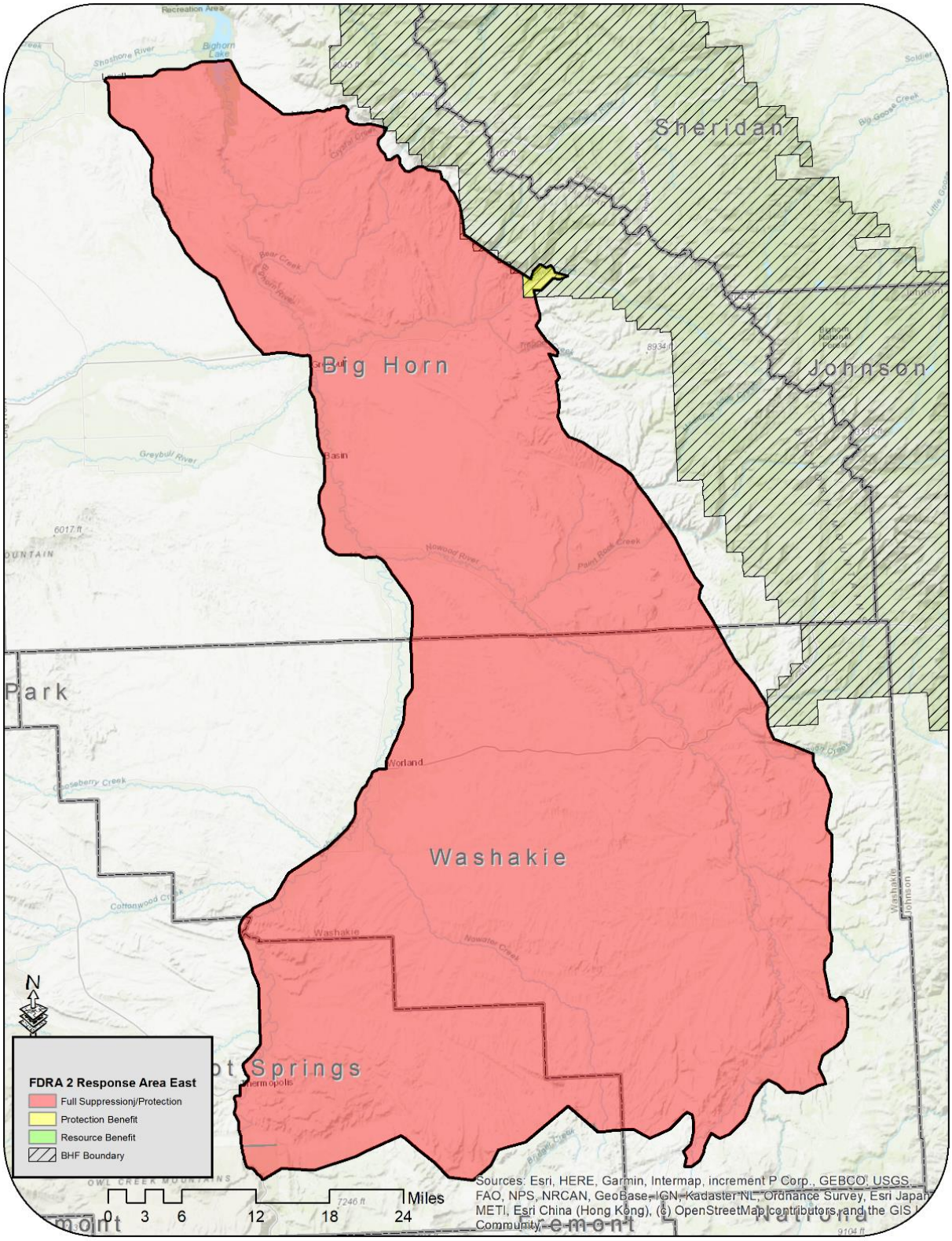
Resource Benefit - The primary response to wildfires are to take advantage of opportunities to manage natural ignitions to accomplish resource benefit objectives identified in the Forest Plan. The strategic area is comprised primarily of designated wilderness and other backcountry areas with little or no road access and impacts to resources from unwanted fires is often low or short-term. There may be values present or threatened that may need to be protected. Values in the backcountry are often isolated and can be protected with point or zone protection strategies. Fires can be long-term events and it is recognized that there may be values distant to the fire that may eventually be threatened. The decision to manage fire for resource benefit objectives include long-term fire assessments that consider the probability of a fire reaching distant values and the probability of success in protecting the values.

	Initial response to fires will require an assessment as to whether the fire is a candidate to manage for resource benefit objectives. The assessment begins immediately by evaluating the probable cause and location of the fire relative to resource values. Initial response resources are dispatched to a fire under the assumption that the fire is a potential wildland fire use candidate and would not begin suppression actions unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response. Unwanted fires that escape initial response are evaluated for their potential impacts to values that are near and distant. In situations where values are low or the probability of values impacted are low and/or defensible, management responses may consist of less aggressive suppression actions such as monitoring, point or zone protection, and/or confinement.

Table 5: FDRA 2 East Response Action



Map 3. FDRA 2 East Response Plan Map

FDRA 3 Bighorn Mountains IA Response Plan	Dispatch Action Based on Response Level					
	BI-Y					
	40+	Low	Moderate	High	High	High
	30-39	Low	Low	Moderate	Moderate	High
	0-29	Low	Low	Low	Moderate	Moderate
	ERC-Y	0-28	29-34	35-41	42-47	48+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	**Respond 1**	**Respond 1**	**Respond 2**
ICT4			**Respond 1**
ICT3			
Helicopter			**Respond 1 if in zone**
Air Attack w/ATGS			**Respond 1 if in zone**
Dozer			
SEAT(s)			
Air Tanker			
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.		
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.		

Special Instructions for Dispatch/Areas of Concern

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

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Within Bighorn National Forest boundary utilize the following special instructions.

Outside Bighorn NF the strategic objective is full suppression /resource protection

Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
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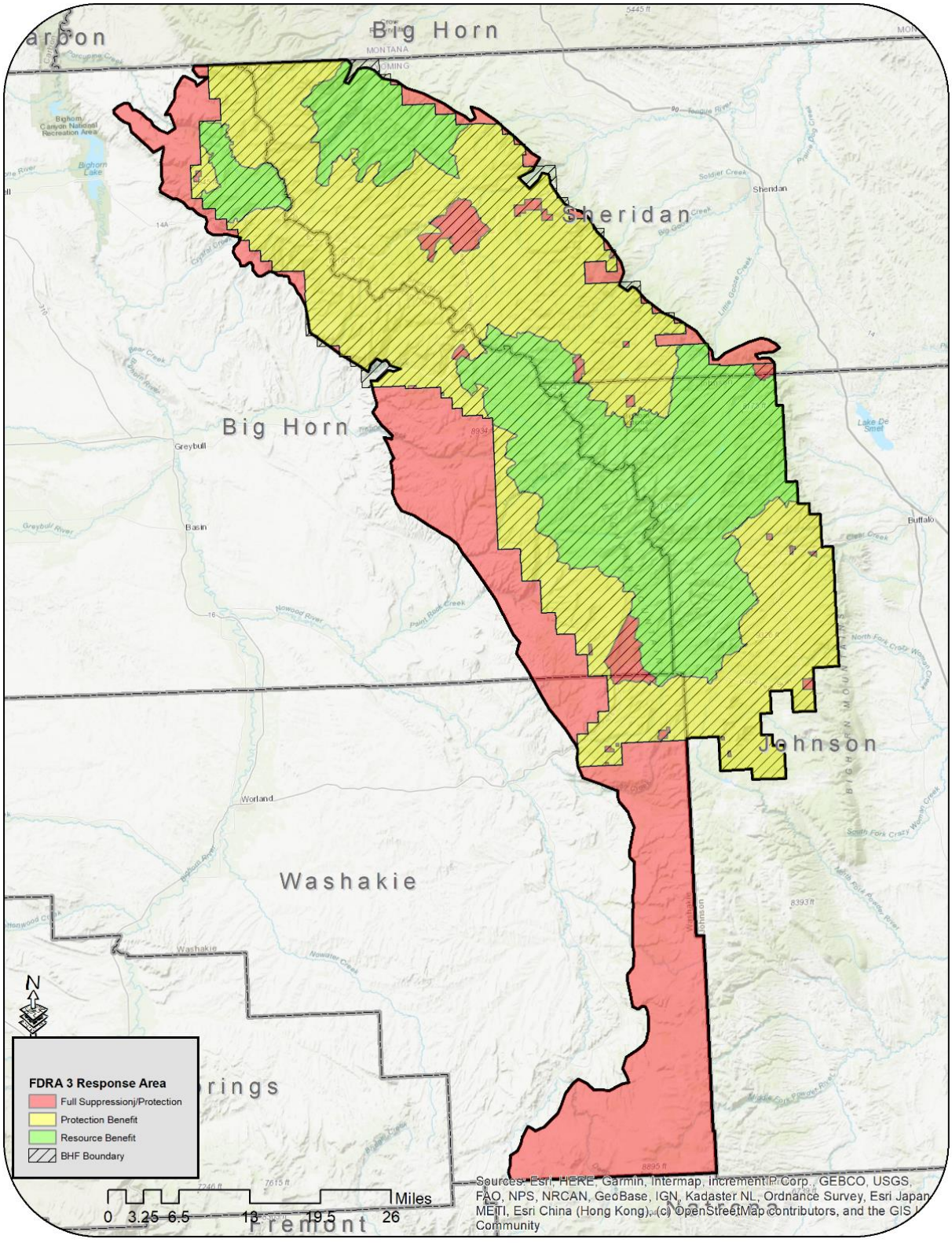
Table 6: FDRA 3 Response Action

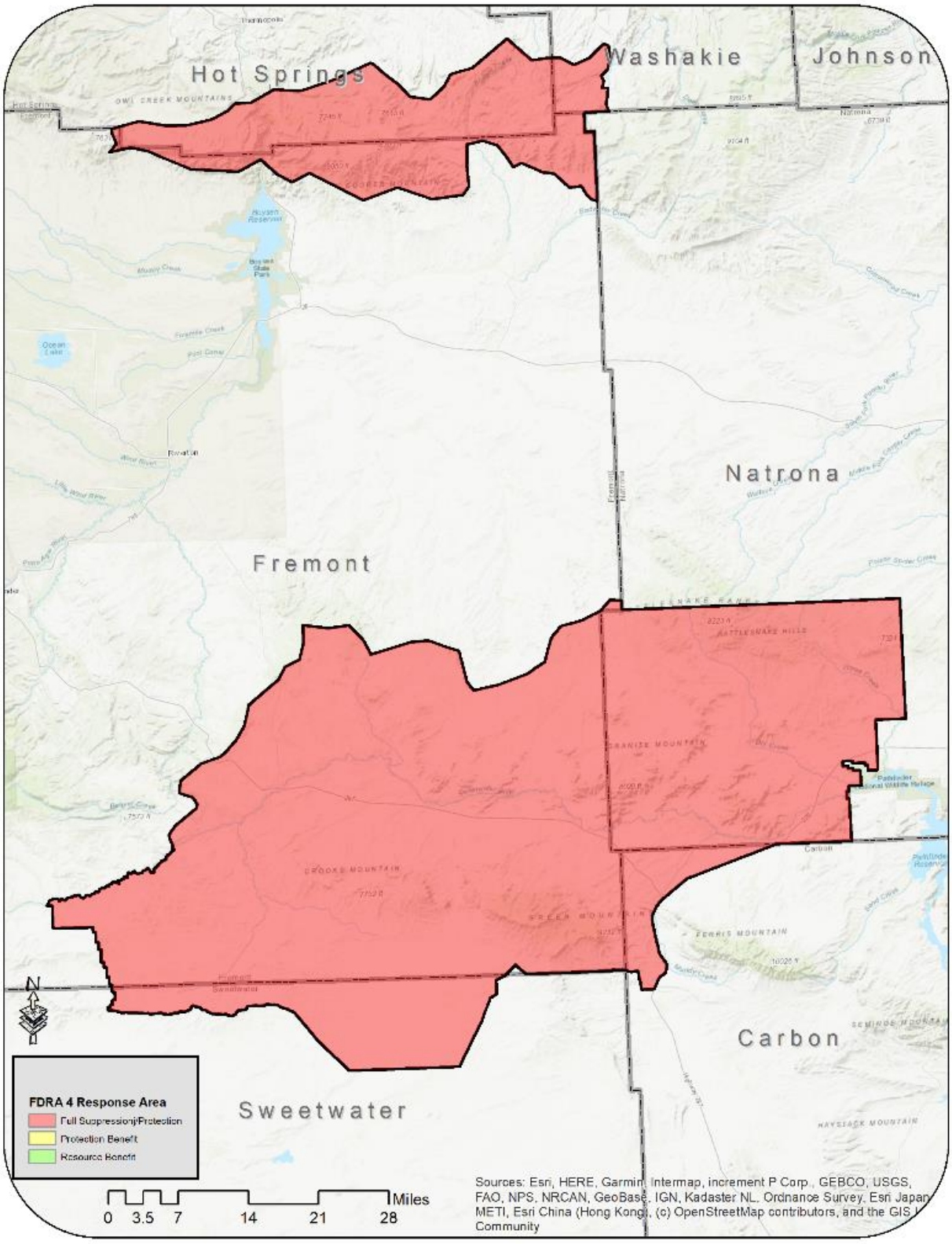


Map 4. FDRA 3 Response Plan Map

FDRA 4 Copper/Sweetwater IA Response	Dispatch Action Based on Response Level					
	BI-X					
	121+	Low	Moderate	High	High	High
	71-120	Low	Low	Moderate	Moderate	High
	0-70	Low	Low	Low	Moderate	Moderate
	ERC-X	0-16	17-29	30-41	42-57	58+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	**Respond 1**	**Respond 1**	**Respond 2**
ICT4		**Respond 1**	**Respond 1**
ICT3			
Helicopter			**Respond 1 if in zone**
Air Attack w/ATGS			**Respond 1 if in zone**
Dozer			
SEAT(s)			
Air Tanker			
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.		
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.		
Special Instructions for Dispatch/Areas of Concern			

Table 7: FDRA 4 Response Actions



Map 5. FDRA 4 Response Plan Map

FDRA 5 Tongue River IA Response	Dispatch Action Based on Response Level					
	BI-X					
	83+	Low	Moderate	High	High	High
	50-82	Low	Low	Moderate	Moderate	High
	0-49	Low	Low	Low	Moderate	Moderate
	ERC-X	0-14	15-25	26-37	38-53	54+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	**Respond 1**	**Respond 1**	**Respond 2**
ICT4			**Respond 1**
ICT3			
Helicopter			**Respond 1 if in zone**
Air Attack w/ATGS			**Respond 1 if in zone**
Dozer			
SEAT(s)			
Air Tanker			
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.		
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.		

Special Instructions for Dispatch/Areas of Concern

Response by FS only if within 1 mile of forest boundary, otherwise no other response from agencies, notify Sheridan Dispatch

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

Strategic Objective	Response Options
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Resource Benefit	Manage natural ignitions to accomplish resource benefit objectives. There may be values present or threatened that may need to be protected with point or zone protection strategies.

Within Bighorn National Forest boundary utilize the following special instructions.

Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

Outside Bighorn NF the strategic objective is full suppression /resource protection

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
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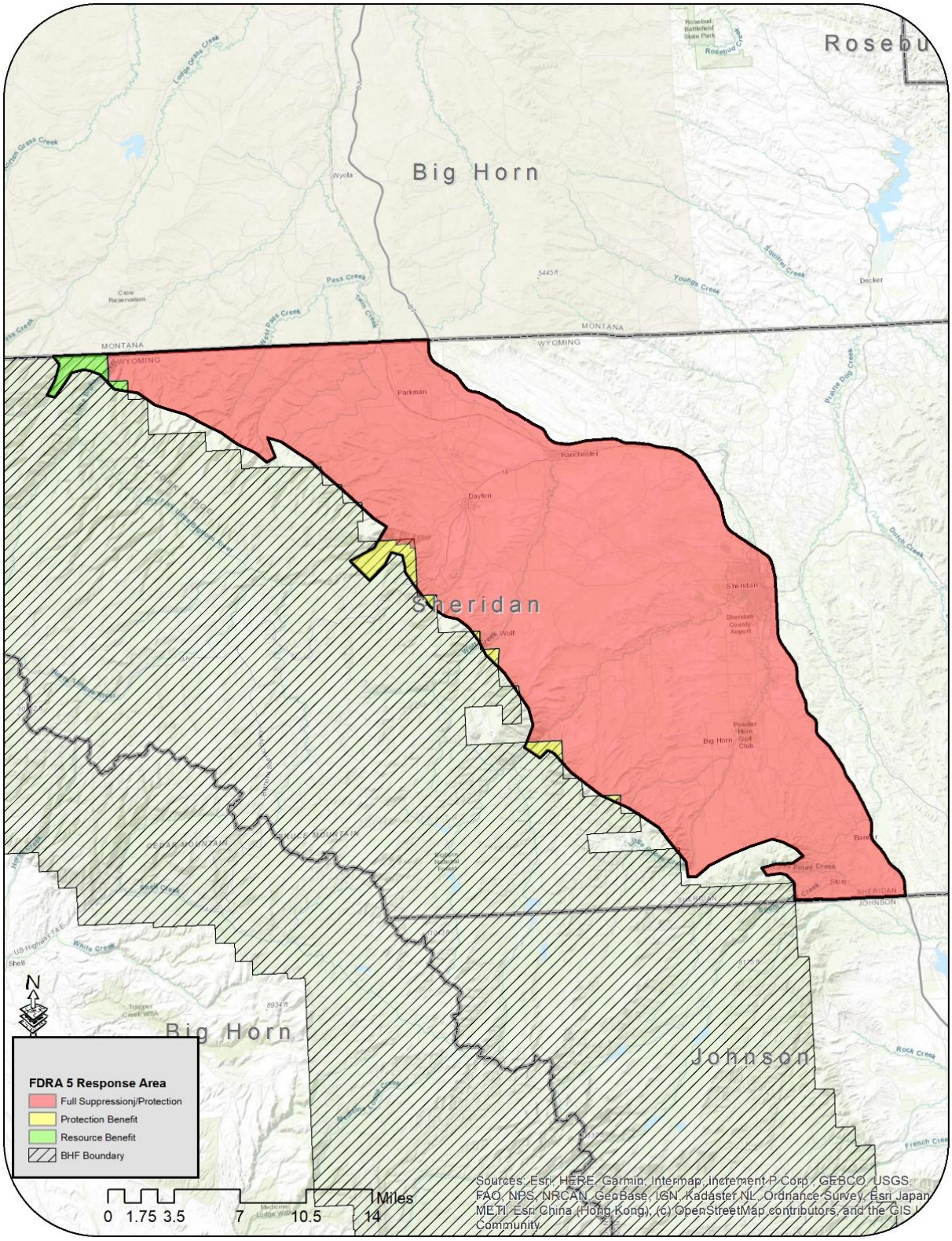
	Initial response to fires will require an assessment as to whether the fire is a candidate to manage for resource benefit objectives. The assessment begins immediately by evaluating the probable cause and location of the fire relative to resource values. Initial response resources are dispatched to a fire under the assumption that the fire is a potential wildland fire use candidate and would not begin suppression actions unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response. Unwanted fires that escape initial response are evaluated for their potential impacts to values that are near and distant. In situations where values are low or the probability of values impacted are low and/or defensible, management responses may consist of less aggressive suppression actions such as monitoring, point or zone protection, and/or confinement.

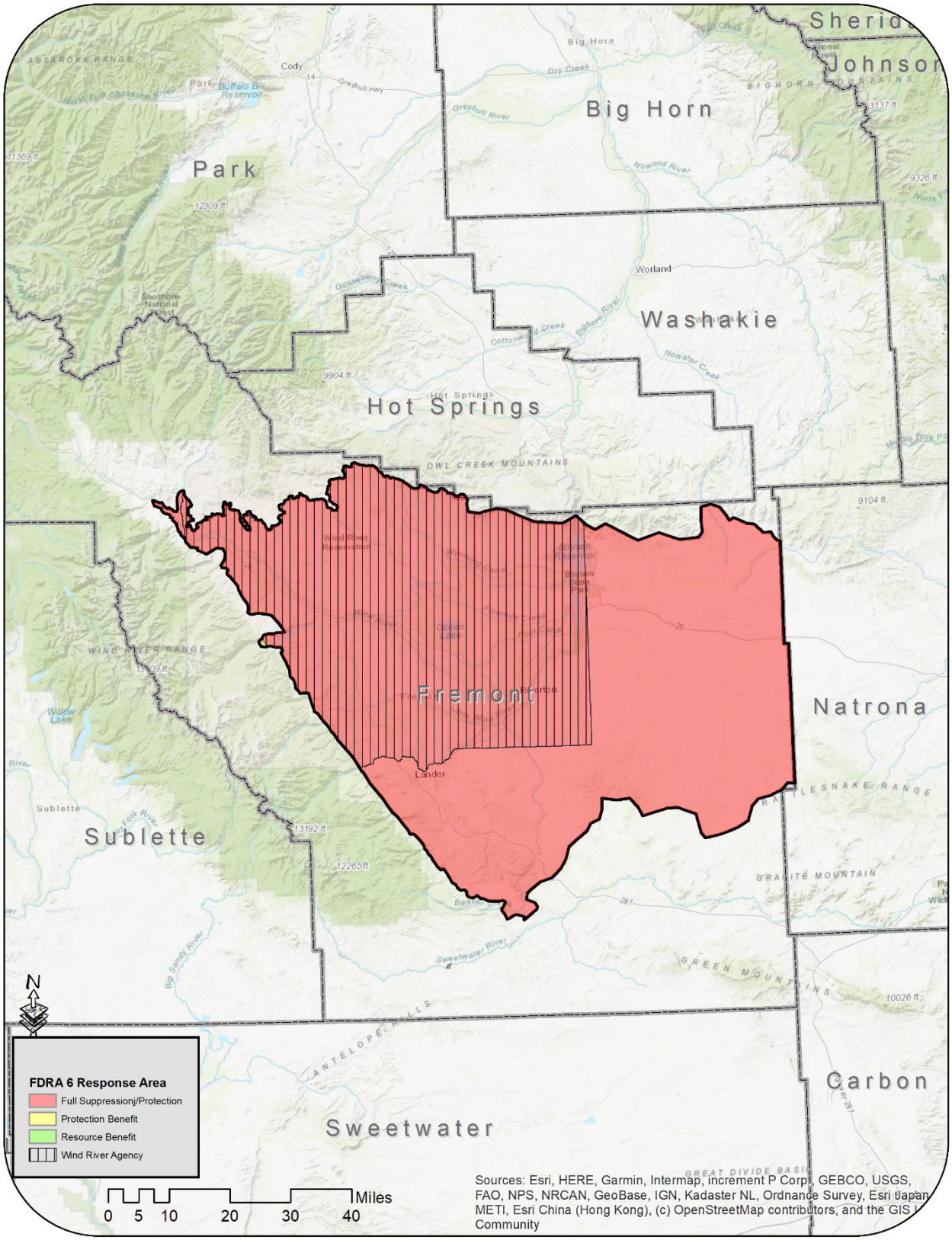
Table 8: FDRA 5 Response Actions



Map 6. FDRA 5 Response Plan Map

FDRA 6 Wind River Basin IA Response	Dispatch Action Based on Response Level					
	BI-X					
	148+	Low	Moderate	High	High	High
	70-147	Low	Low	Moderate	Moderate	High
	0-69	Low	Low	Low	Moderate	Moderate
	ERC-X	0-19	20-35	36-54	55-71	72+
Resources	**Low**		**Moderate**		**High**	
IA Squad/Engine – T3, T4, or T6 with ICT5	**Respond 1**		**Respond 2**		**Respond 3**	
ICT4			**Respond 1**		**Respond 1**	
ICT3						
Helicopter					**Respond 1 if in zone**	
Air Attack w/ATGS					**Respond 1 if in zone**	
Dozer						
SEAT(s)						
Air Tanker						
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.					
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.					
Special Instructions for Dispatch/Areas of Concern						
On Wind River Agency jurisdictional lands this response plan is not applicable.						

Table 9: FDRA 6 Response Actions



Map 7. FDRA 6 Response Plan Map

FDRA 7 Wind River Mountains IA Response	Dispatch Action Based on Response Level					
	BI					
	36+	Low	Moderate	High	High	High
	24-35	Low	Low	Moderate	Moderate	High
	0-23	Low	Low	Low	Moderate	Moderate
	ERC	0-21	22-33	34-47	48-52	53+

Resources	Low	Moderate	High
IA Squad/Engine – T3, T4, or T6 with ICT5	**Respond 1**	**Respond 1**	**Respond 2**
ICT4			**Respond 1**
ICT3			
Helicopter			**Respond 1 if in zone**
Air Attack w/ATGS			**Respond 1 if in zone**
Dozer			
SEAT(s)			
Air Tanker			
Respond	Resources will proceed directly to the incident at the direction of Cody Dispatch.		
Notify	Jurisdictional Duty Officer and county dispatch if near protected values.		

Special Instructions for Dispatch/Areas of Concern

Reference Shoshone National Forest Preparedness, Staffing and Wildfire Response Guide for specific actions based on strategic objectives from the Shoshone NF Land Management Plan.

On Wind River Agency jurisdictional lands this response plan is not applicable.

Within Shoshone National Forest boundary utilize the following special instructions.

Outside Shoshone NF the strategic objective is full suppression /resource protection

Reference attached map for location of response options. The unit is divided into three fire planning units with strategic objectives for wildfire response. Each strategic objective (SO) has response options. The strategic objective response options are based on the Forest Plan goals and resource objectives; values at risk; administrative and jurisdictional responsibilities; weather, fire behavior, fuels and fire history characteristics; access; and logistical support requirements.

Strategic Objective	Response Options
Full Suppression/Resource Protection	Suppression response based on the safest, most effective, and cost-efficient actions to contain and control fires as quickly as possible.
Resource Protection and/or Benefit	Protect values identified in the Forest Plan as well as adjacent private property or other ownerships. Depending on location, cause, and time of year resource benefit objectives are an option in combination with protection objectives.
Resource Benefit	Manage natural ignitions to accomplish resource benefit objectives. There may be values present or threatened that may need to be protected with point or zone protection strategies.

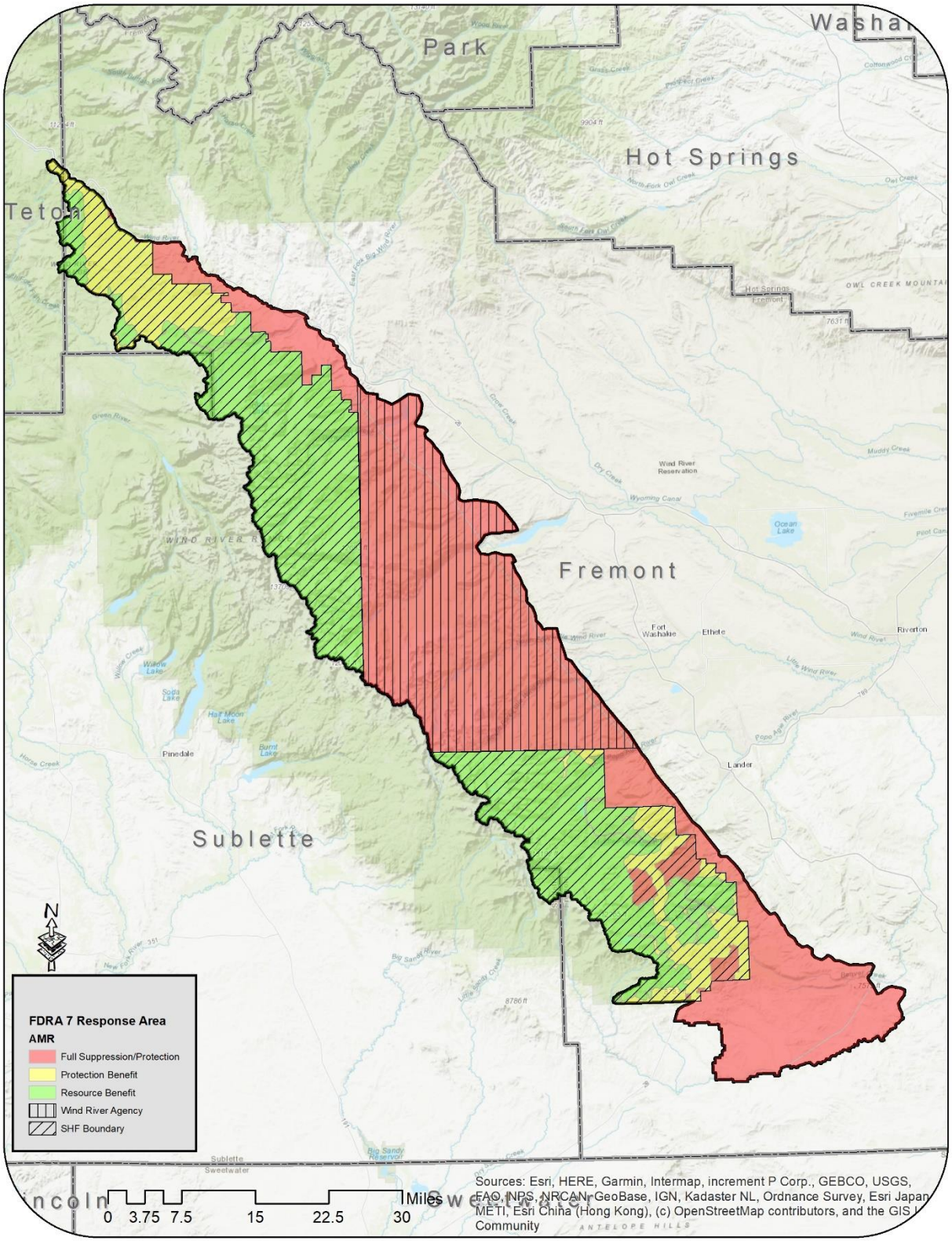
Resource Protection -The intended response to wildfires is full suppression to accomplish resource or value protection objectives. Unplanned ignitions are unwanted fires and initial response will consist of the safest and most effective and cost-efficient actions to contain and control fires as quickly as possible. For fires that are threatening to burn into these areas, suppression actions would be implemented to prevent or minimize the effects of fire when possible.

Resource Protection and/or Benefit - The primary response to wildfires is to initiate actions that protect the values. These values to be protected may include those located on National Forest as well as adjacent private property or lands administered by other federal and State agencies. Depending upon the location of the fire and the cause, there may be an opportunity to manage fire for resource benefit objectives in combination with protection objectives.
The initial response to wildfires will require an assessment of the threat to values to be protected from fire and whether the fire may also be a candidate that could be manage for resource benefit objectives. The assessment begins immediately by evaluating the cause and location of the fire relative to resource values. Commensurate with the assessment, initial response resources are dispatched to a fire under the assumption that the fire is to receive a suppression response unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response.

Resource Benefit - The primary response to wildfires are to take advantage of opportunities to manage natural ignitions to accomplish resource benefit objectives identified in the Forest Plan. The strategic area is comprised primarily of designated wilderness and other backcountry areas with little or no road access and impacts to resources from unwanted fires is often low or short-term. There may be values present or threatened that may need to be protected. Values in the backcountry are often isolated and can be protected with point or zone protection strategies. Fires can be long-term events and it is recognized that there may be values distant to the fire that may eventually be threatened. The decision to

	manage fire for resource benefit objectives include long-term fire assessments that consider the probability of a fire reaching distant values and the probability of success in protecting the values. Initial response to fires will require an assessment as to whether the fire is a candidate to manage for resource benefit objectives. The assessment begins immediately by evaluating the probable cause and location of the fire relative to resource values. Initial response resources are dispatched to a fire under the assumption that the fire is a potential wildland fire use candidate and would not begin suppression actions unless directed otherwise. Human caused fires are classified as an unwanted fire and will receive a suppression response. Unwanted fires that escape initial response are evaluated for their potential impacts to values that are near and distant. In situations where values are low or the probability of values impacted are low and/or defensible, management responses may consist of less aggressive suppression actions such as monitoring, point or zone protection, and/or confinement.

Table 10: FDRA 7 Response Actions



Map 8. FDRA 7 Response Plan Map

Appendix B **STAFFING PLAN**

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

- Draw-down levels – minimum value of resource by staffing level.
- Step-up actions

The 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 not be as effective.

Terminology
Staffing Index – the selection of an NFDRS index (ERC, BI, IC, SC) to provide the basis to calculate the Staffing Level.

Staffing Level – the bottom line of fire-danger rating and can be thought of as a "readiness" level. Staffing Levels are expressed as numeric values where 1 represents the low end of the fire danger continuum and 5 at the high end. Staffing Level is intended to provide fire managers with day to day (short term) decision support regarding staffing of suppression resources. Staffing level can be used to determine when additional workforce and resources may be necessary to ensure appropriate staffing in response to escalating fire danger.

Step-up Plan – includes supplemental preparedness actions designed to enhance the unit's fire management capability during short periods (usually one burn period in anticipation of wind events, dry cold fronts, and lightning events) where normal staffing cannot foreseeably meet initial attack, prevention, or detection needs.

Draw-down level – the degree of response capabilities of an agency due to the impact of emergency activity within their home jurisdiction and/or commitment of resources to the mutual aid system for incident response outside of their jurisdiction. Draw-down is expressed as either (1) the predetermined number/type of suppression resources, or (2) the percentage of remaining capacity of suppression resources that are required to maintain viable initial attack (IA) capability.

For this FDOP, calculation of the Staffing Level begins with the Response Level. For any Response Level the corresponding Staffing Level is determined by taking into consideration two additional factors:

1. Fire activity within the FDRA, including prescribed fire, current day initial attack or if any fires in extended attack until containment is met and,

2. Triggers forecasted to occur within the FDRA and associated Fire Weather Zone within the next 24-hour period.
Triggers:

- LAL 4,5, or 6
- Fire Weather Watch
- Red Flag Warning

		All FDRA's					
Response Level		**1 – Low**		**2- Moderate**		**3 – High**	
Fire Activity	**No**	**SL 1**	**SL 2**	**SL 2**	**SL 3**	**SL 3**	**SL 4**
	Yes	**SL 2**	**SL 3**	**SL 3**	**SL 4**	**SL 4**	**SL 5**
Weather Trigger		**No**	**Yes**	**No**	**Yes**	**No**	**Yes**

Table 11: Response Level to Staffing Level Determination

		Staffing Levels				
FDRA	**Resources**	**SL 1**	**SL 2**	**SL 3**	**SL 4**	**SL 5**
1	Forest FMO/AFMO	0	0	0-1	1	1
	Forest Duty Officer	0-1	0-1	0-1	1	1
	Zone/District FMO/AFMO	0	0	0-1	1	1
	Zone Duty Officer	0-1	0-1	0-1	1	1
	Engine or IA Module with ICT5	0	0-1	0-1	1-2	2
	ICT4	0	0	0-1	1	1
	ICT3	0	0	0	0-1	1
	Staffing Hours	Normal	Normal	Normal +	7-day	7-day +
	Dispatch Center Staffing	Normal	Normal	Normal +	7-day	7-day +
	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO
2	Duty Officer	1	1	1	1	1
	Engine or IA Module with ICT5	1	1	2	3-4	4
	ICT4	0	0	0-1	1	2
	ICT3	0	0	0	0-1	1
	Staffing Hours	Normal	Normal	Normal +	7-day	7-day +
	Dispatch Center Staffing	Normal	Normal	Normal +	7-day	7-day +
	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO
3	Forest/District DO	1	2*	2*	3*	4*
	Engine or IA Module with ICT5	1-2	2-3	3-4	4	4
	ICT4	0	0	0-1	1	1
	ICT3	0	0	0	0-1	1
	Staffing Hours	Normal	Normal	Normal +	7-day	7-day +
	Dispatch Center Staffing	Normal	Normal	Normal +	7-day	7-day

	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO
4	Duty Officer	1	1	1	1	1
	Engine or IA Module with ICT5	1	1	2	3-4	4
	ICT4	0	0	0-1	1	2
	ICT3	0	0	0	0-1	1
	Staffing Hours	Normal	Normal	Normal +	7-day	7-day +
	Dispatch Center Staffing	Norma	Normal	Normal +	7-day	7-day +
	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO
5	Duty Officer					
	Engine or IA Module with ICT5					
	ICT4					
	ICT3					
	Staffing Hours					
	Dispatch Center Staffing					
	Step-Up Actions					
6	Duty Officer	1	1	1	1	1
	Engine or IA Module with ICT5	1	1	2	3-4	4
	ICT4	0	0	0-1	1	2
	ICT3	0	0	0	0-1	1
	Staffing Hours	Normal	Normal	Normal +	7-day	7-day +
	Dispatch Center Staffing	Normal	Normal	Normal +	7-day	7-day +
	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO
7	Forest FMO/AFMO	0	0	0-1	1	1
	Forest DO	0-1	0-1	0-1	1	1
	Zone/District FMO/AFMO	0	0	0-1	1	1
	Zone DO	0-1	0-1	0-1	1	1
	Engine or IA Module with ICT5	0	0-1	0-1	1	2
	ICT4	0	0	0-1	1	1-2
	ICT3	0	0	0	0-1	1-2
	Staffing Hours	Normal	Normal	Normal+	7-day	7-day+
	Dispatch Center Staff	Normal	Normal	Normal+	7-day	7-day
	Step-Up Actions	Normal	WxE	WxE	WxE/PrpO	WxE/PrpO)

Table 12: Staffing Level Actions and Draw-down Levels

* BHF Only – includes FFMO or Resource Staff Officer for Large Fire Support.

Step-up Actions:

WxE – consider extended staffing using severity or forest support code for weather event (RFW, or lightning)

PrpO – consider requesting additional resources (engines/crews/SEAT's/HEL3, etc.) to preposition in critical areas using regional or local preposition codes or severity. This could include standing up a staged IMT3.

Appendix C **PREPAREDNESS PLAN**

Preparedness Levels will assist fire managers with more long-term (seasonal) decisions with respect to fire danger. Preparedness level calculations begins with the maximum Staffing Index for any FDRA as calculated in WIMS for ERC-Y and then takes into consideration forecast ignition risk (lightning), critical fire weather and resource commitment.

Calculation of the FDRA or Zone Preparedness Level is determined using the following steps:

1. Determine each FDRA 5-day average ERC for either X-Brush or Y-Timber fuel models (current ERC and previous 4-day ERC values averaged). Check the appropriate range of ERC values box that corresponds to the FDRA ERC 5-day average. Complete for all FDRA's.

2. Check all the Staffing Index boxes that corresponds to the boxes checked for each FDRA. The FDRA with the highest ERC Breakpoint checked corresponds to the initial Zone Preparedness Level. Each FDRA will have a initial PL as well.

3. Determine Critical Fire Weather for the next 12-24-hr period by clicking on each Fire Weather Forecast Zone by FDRA and determining if the LAL = 4-6, and if there is a Fire Weather Watch or Red Flag Warning issued. Determine if there is a High-Risk Trigger associated with the Predictive Service Area (PSA) associated within the FDRA for the next 36-hr to 72-hr time period (Day 2-4) from the National 7-Day Significant Fire Potential.

4. Determine by FDRA and Zone if there is fire activity, including prescribed fire, for each day of initial attack or extended attack on ongoing fires until containment is met.
5. Follow the arrows to PL rating by FDRA with the highest PL being the Zone PL.

12-24-hr Weather Forecast				36-72-hr	
FDRA	Fire Weather Forecast Zone	LAL 4-6	FWF/RFW	High Risk Trigger	PSA
1	286	Y/N	Y/N	Y/N	RM01
2	129	Y/N	Y/N	Y/N	RM02
2	275	Y/N	Y/N	Y/N	RM02
2	276	Y/N	Y/N	Y/N	RM02
2	282	Y/N	Y/N	Y/N	RM02
2	287	Y/N	Y/N	Y/N	RM02
3	284	Y/N	Y/N	Y/N	RM03
4	285	Y/N	Y/N	Y/N	RM08
4	289	Y/N	Y/N	Y/N	RM08
5	**274**	Y/N	Y/N	Y/N	RM04
6	283	Y/N	Y/N	Y/N	RM08
7	288	Y/N	Y/N	Y/N	RM01

Table 13. 24-hr Fire Weather Forecast and 72-hr High Risk Triggers to Determine PL

ERC Breakpoints	1	2	3	4	5
FDRA 1 Absaroka Mountains ERC-Y	0-18 ☐	19-30 ☐	31-42 ☐	43-48 ☐	49+ ☐
FDRA 2 Bighorn Basin ERC-X	0-16 ☐	17-32 ☐	33-54 ☐	55-72 ☐	73+ ☐
FDRA 3 Bighorn Mountains ERC-Y	0-28 ☐	29-34 ☐	35-41 ☐	42-47 ☐	48+ ☐
FDRA 4 Copper/ Sweetwater ERC-X	0-16 ☐	17-29 ☐	30-41 ☐	42-57 ☐	58+ ☐
FDRA 5 Tongue River ERC-X	0-14 ☐	15-25 ☐	26-37 ☐	38-53 ☐	54+ ☐
FDRA 6 Wind River Basin ERC-X	0-19 ☐	20-35 ☐	36-54 ☐	55-71 ☐	72+ ☐
FDRA 7 Wind River Mountains ERC-Y	0-21 ☐	22-33 ☐	34-47 ☐	48-52 ☐	53+ ☐
Staffing Index by FDRA or max Index for Zone	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
Critical Fire Weather from Zone Fire Weather Forecast next 12-24 hrs (FWW, RFW, LAL 4-6)	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes
High Risk Trigger in the next 36 to 72-hrs from National 7-Day Significant Fire Potential	Yes/No ☐	No	Yes ☐	No	Yes ☐	No	Yes ☐	No	Yes ☐	No/ Yes
Fire Activity	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No ☐	Yes ☐	No/Yes
FDRA Preparedness Level	☐	☐	☐	☐	☐

CDC Zone PL from CDC Mob Guide	All FDRA's Low to Moderate	2+ FDRA's Moderate to High	2+ FDRA's High to Very High	3+ FDRA's Very High to Extreme	Majority of FDRA's are Very High to Extreme
Zone Preparedness Level	I ☐	II ☐	III ☐	IV ☐	V ☐

Table 13. CDC Zone Preparedness Level Matrix

Preparedness Level Actions are guidelines. And as such are discretionary in nature, for agency personnel to refer to when preparedness level thresholds are reached. If an agency doesn't have specific position that is listed withing the PL table, that agency will utilize discretion as to what position will assume those roles.

Recommended Action Items by Preparedness Levels

Responsibility	Suggested Action	PL 1	PL 2	PL 3	PL 4	PL 5	Affected Entity
Agency Administrator	Pre fire season meeting with all firefighters to establish Leader's Intent based on Agency emphasis	X					Agency
	Ensure adequate Resource Advisors (READ/REAF) are trained and available for local fire assignments			X	X	X	Agency
	Ensure adequate Public Information (PIO) staff are trained/available and briefed on agency talking points			X	X	X	Agency
	Ensure adequate Contracting and Purchasing Support is available locally to meet incident needs	X	X	X	X	X	Agency
	Communicate acting Agency Administrators to Agency Duty Officers (DO)	X	X	X	X	X	Agency
	Evaluate work/rest needs of fire staff and crews	X	X	X	X	X	Agency
	Consider management of natural ignitions to meet LRMP/RMP objectives	X	X	X	X	X	Agency
	Review/Submit severity requests to the appropriate staff level			X	X	X	Agency
	Provide appropriate support to fire staffs in the implementation of preparedness level actions				X	X	Agency
	Consider/Approve appropriate fire restrictions and closures			X	X	X	Public Industry
	Issue guidance to staff indication severity of the season and the need and availability of fire support personnel			X	X	X	Agency
Unit Duty Officer	Evaluate season severity data (NFDRS seasonal indices), fuel moisture, drought indices, short-term and long-term forecast	X	X	X	X	X	Agency
	Brief Agency Administrator on burning conditions and fire activity			X	X	X	Agency
	Review geographical and national preparedness levels to evaluate need to suspend local RX fire activities			X	X	X	Agency

Unit Duty Officer	Consider consultation or ordering FBAN or WFDSS Support for ongoing fire activity			X	X	X	Agency
	Consider ordering SOPL and/or LTAN for large and/or long-term fires			X	X	X	Agency
	Communicate with CDC Manager on geographical conditions and resource availability			X	X	X	Agency
	Initiate press releases, social media messages with Agency PIO staff			X	X	X	Public Industry
	Consider fire severity request and pre-positioning of resources to include ICT3, OPS, aerial supervision/support, LOGS, Finance, purchasing, planning, information, and prevention			X	X	X	Agency Public Industry
	Consult with Agency Administrator to ensure actions are meeting their expectations			X	X	X	Agency
	Evaluate crew and staff work/rest guidelines are being met			X	X	X	Agency
	Initiate weekly calls with adjacent agencies and cooperators regarding fire restrictions or closures			X	X	X	Agency
	Request Agency Administrator issue guidance to office staff for increased availability from militia for operations and support positions				X	X	Agency
	Consider management of natural ignitions to meet LRMP/RMP Objectives	X	X	X	X	X	Agency
	Communicate acting/replacement Unit DO to CDC and Unit FMO/FOS	X	X	X	X	X	Agency
	Coordinate with local fire wardens on local fire danger conditions			X	X	X	Agency
	Confirm local preparedness and response levels with CDC Manager			X	X	X	Agency
	Brief local staff on increasing fire danger		X	X	X	X	Agency
	Brief Regional/State staff of increasing or decreasing fire activity and resource needs			X	X	X	Agency
	Evaluate need for fire restrictions or closures			X	X	X	Public Industry
	Consider pre-positioning an appropriate IMT				X	X	Agency
	As PL decreases, consult with CDC Manager to release pre-positioned resources		X	X			Agency
	Consider ordering buying team and IBA for IMT1/IMT2 fires			X	X	X	Agency
	Ensure Unit DO/**Resource** Status is updated on CDC webpage daily		X	X	X	X	Agency

	Evaluate work/rest guidelines are being followed by dispatch personnel	X	X	X	X	X	Agency
Cody Dispatch Center	Initiate weekly/bi-weekly Calls with FMO/Unit DO and Cooperators			X	X	X	Agency
	Review Local Resource Availability with Zone Units		X	X	X	X	Agency
	Review Fire Weather Forecasts		X	X	X	X	Agency
	Consider Expanded Dispatch		X	X	X	X	Agency
	Consider Unit Incident Support Organization		X	X	X	X	Agency
	Consider CICG/LMAC Activation bi-weekly/weekly/daily calls		X	X	X	X	Agency
	Severity Requests – order appropriate resources			X	X	X	Agency
	Fire Restrictions implemented on some or all units			X	X	X	Agency Public Industry
	Evaluate IA Dispatch Staffing needs		X	X	X	X	Agency
	Consider IMT3 Activation based on needs from Unit DO/FMO			X	X	X	Agency
	Consider SEAT Base Activation		X	X	X	X	Agency
	Consider or**dering** off-unit IA Dispatchers and logistical support personnel			X	X	X	Agency
	As PL decreases, consult with Unit DO's/FMO to release pre-positioned resources		X	X			Agency
Zone/District FMO/DO	Consider management of natural ignitions to meet LRMP/RMP Objectives	X	X	X	X	X	Agency
	Evaluate work/rest guideline of staff and crews	X	X	X	X	X	Agency
	Consider patrols and pre-positions local IA resources in high risk areas and/or high-risk weather conditions		X	X	X	X	Agency
	Suspend or not initiating RX fire operations without Regional Approval **for FS**				X	X	Agency
	Evaluate draw-down levels for suppression, command and oversight			X	X	X	Agency
	Consider replacement/additional resources when resources are on days-off or gone on assignment			X	X	X	Agency
	Evaluate need for fire restrictions/closures			X	X	X	Public Industry
	Brief unit agency administrator on conditions and all fire activity		X	X	X	X	Agency
	Consider pre-positioning additional IA resources from militia or off-unit			X	X	X	Agency

	Ensure incoming off-unit resources receive unit briefing and daily weather/fire briefing			X	X	X	Agency
	As PL decreases, consult with Unit Do/FMO to release pre-positioned resources		X	X			Agency
	Ensure Zone/District DO and Resource Status is updated on CDC webpage daily		X	X	X	X	Agency
Fire Prevention	Ensure roadside fire danger signs reflect the current adjective fire danger rating	X	X	X	X	X	Public
	Provide public and industrial entities with access to fire danger information, fire weather warnings, restriction and closure information			X	X	X	Agency Public Industry
	Contact local industrial entities (logging, power, oil and gas) to inform of hazard and risk of wildfires			X	X	X	Industry
	Post restriction signs along access roads, campgrounds and recreational areas			X	X	X	Public
	Consider need for increased fire prevention patrols and BLM INVF.			X	X	X	Agency
	Consult with local FMO on need for fire restrictions/closures			X	X	X	Public

Table 15. Preparedness Level Actions

Appendix D **ADJECTIVE FIRE DANGER RATING LEVEL**

In 1974, the Forest Service, Bureau of Land Management and state forestry organizations established five standard Adjective Fire Danger Level descriptions for public information and signing.

As with Preparedness Level, the Adjective Fire Danger Rating Level can be obtained as a direct output in WIMS, however, the Adjective Rating from WIMS is strictly based on weather and climatological percentiles with no regard to historical fire occurrence. The use of agency-specific climatological percentiles is not mandatory. The preferred method to determine Adjective Fire Danger Rating thresholds is based on statistical correlation of weather observations and fire occurrence. This FDOP will use the Adjective Fire Danger Rating on fire business thresholds rather than climatological percentiles.

To determine the Adjective Fire Danger Rating determine the 3-day Average ERC and IC (current day plus previous 2 days) for each FDRA and used the matrix in Table 15 to determine current Fire Danger Rating.

FDRA 1 Absaroka Mountains					
3-day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-18	Low	Low	Low	Moderate	Moderate
19-30	Low	Moderate	Moderate	Moderate	High
31-42	Moderate	Moderate	High	High	Very High
43-48	Moderate	High	Very High	Very High	Extreme
49+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-3	4-15	16-29	30-40	41+
FDRA 1 Bighorn Basin					
3-day AVG ERC -X Staffing Index	Fire Danger Adjective Rating				
0-16	Low	Low	Low	Moderate	Moderate
17-32	Low	Moderate	Moderate	Moderate	High
33-54	Moderate	Moderate	High	High	Very High
55-72	Moderate	High	Very High	Very High	Extreme
73+	High	Very High	Very High	Extreme	Extreme
3- day AVG IC-X	0-4	5-16	17-25	26-37	38+
FDRA 3 Bighorn Mountains					
3- day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-28	Low	Low	Low	Moderate	Moderate
29-34	Low	Moderate	Moderate	Moderate	High
35-41	Moderate	Moderate	High	High	Very High
42-47	Moderate	High	Very High	Very High	Extreme
48+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-19	20-34	35-44	45+

FDRA 4 Copper/Sweetwater					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-16	Low	Low	Low	Moderate	Moderate
17-29	Low	Moderate	Moderate	Moderate	High
30-41	Moderate	Moderate	High	High	Very High
42-57	Moderate	High	Very High	Very High	Extreme
58+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-7	8-12	13-21	22-33	34+
FDRA 5 Tongue River					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-14	Low	Low	Low	Moderate	Moderate
15-25	Low	Moderate	Moderate	Moderate	High
26-37	Moderate	Moderate	High	High	Very High
38-53	Moderate	High	Very High	Very High	Extreme
54+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-10	11-19	20-38	39+
FDRA 6 Wind River Basin					
3-day AVG ERC-X Staffing Index	Fire Danger Adjective Rating				
0-19	Low	Low	Low	Moderate	Moderate
20-35	Low	Moderate	Moderate	Moderate	High
36-54	Moderate	Moderate	High	High	Very High
55-71	Moderate	High	Very High	Very High	Extreme
72+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-X	0-4	5-16	17-27	28-38	39+
FDRA 7 Wind River Mountains					
3-day AVG ERC-Y Staffing Index	Fire Danger Adjective Rating				
0-21	Low	Low	Low	Moderate	Moderate
22-33	Low	Moderate	Moderate	Moderate	High
34-47	Moderate	Moderate	High	High	Very High
48-52	Moderate	High	Very High	Very High	Extreme
53+	High	Very High	Very High	Extreme	Extreme
3-day AVG IC-Y	0-5	6-15	16-32	33-43	44+

Table 16. Adjective Fire Danger Rating Matrix

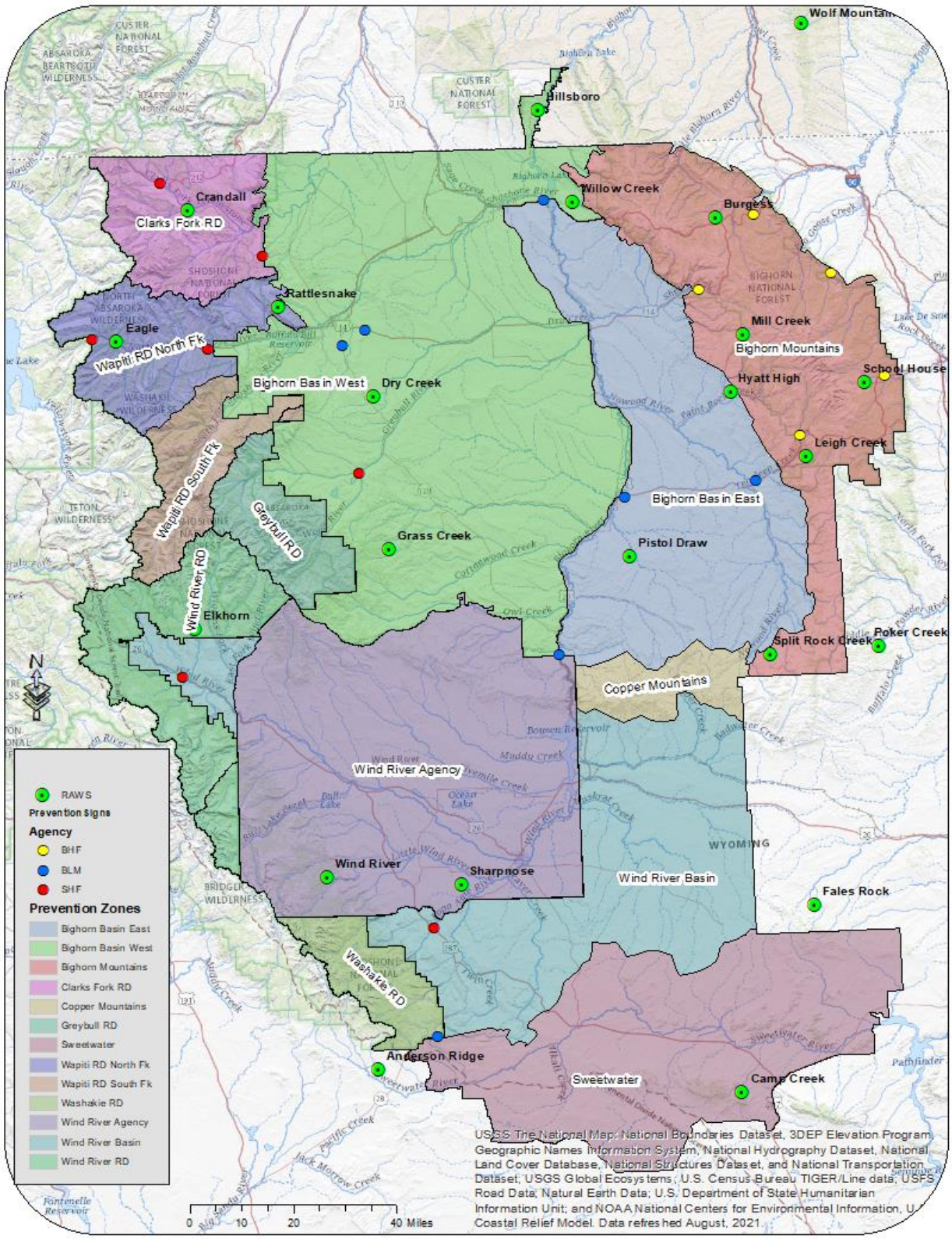
Appendix E **PREVENTION PLAN**

The FDRA designations and associated weather stations used to determine decision points are adequate for staffing and preparedness level planning but may not be the most accurate way to articulate fire danger to the public. There may be enough variability in conditions within a FDRA at the same time to warrant different signing of fire danger in different areas. Given this possibility, some of the FDRAs have been subdivided into prevention zones (Map 9). In some locations, individual station fire danger adjective ratings will be used to set the fire danger signs as well as a criterion to emphasize the fire prevention message in a given area). The Tongue FDRA is currently assessed by a satellite imagery greenness factor, with fire danger ratings assessed by the County Fire Warden. Fire Managers in some prevention zones are supplementing the rating system with fuel moisture data and averaging a combination of RAWS station indices to match what occurs in a FDRA.

Fire Danger Rating Area	Prevention Zone	Indicator Station or SIG for Signing	Number of Signs in Prevention Zone
FDRA 1 - Absaroka Mountains	Clarks Fork RD	Crandall RAWS	2
	Wapiti RD -North Fork	Eagle/Rattlesnake RAWS	2
	Wapiti RD -South Fork	Eagle/Rattlesnake RAWS	1
	Greybull RD	Grass Cr/ Rattlesnake RAWS	1
	Wind River RD	Elkhorn RAWS	1
FDRA 2- Bighorn Basin	East and West Bighorn Basin	Grass Creek/Dry Creek/Pistol Draw/ Willow Creek/ Hyatt High RAWS	6
FDRA 3 – Bighorn Mountains	Bighorn National Forest	Burgess/Mill Creek/ Leigh Creek/ Schoolhouse Park RAWS	5
FDRA 4 – Copper/Sweetwater	All	Split Rock/ Poker Creek/Camp Creek/ Anderson Ridge RAWS	1
FDRA 5 – Tongue River	FDRA 5	None	None
FDRA 6 – Wind River Basin	Wind River Basin	Sharpnose/ Fales Rock RAWS	

Fire Danger Rating Area	Prevention Zone	Indicator Station or SIG for Signing	Number of Signs in Prevention Zone
FDRA 7 – Wind River Mountains	Wind River RD	Elkhorn RAWS	1
	Wind River Agency	Wind River/ Sharpnose RAWS	N/A
	Washakie RD	Wind River RAWS/Anderson Ridge RAWS	1

Table 17. Fire Prevention Zones



Map 9. Prevention Zones and Fire Danger Sign Locations

Appendix F **RESTRICTION PLAN**

Each Agency manages their own Restriction Plans with coordination with surrounding agencies and cooperators.

Appendix G **STATISICAL ANALYSIS USED IN DETERMINATION OF RESPONSE LEVELS**

FDRA1 – Absaroka Mountains

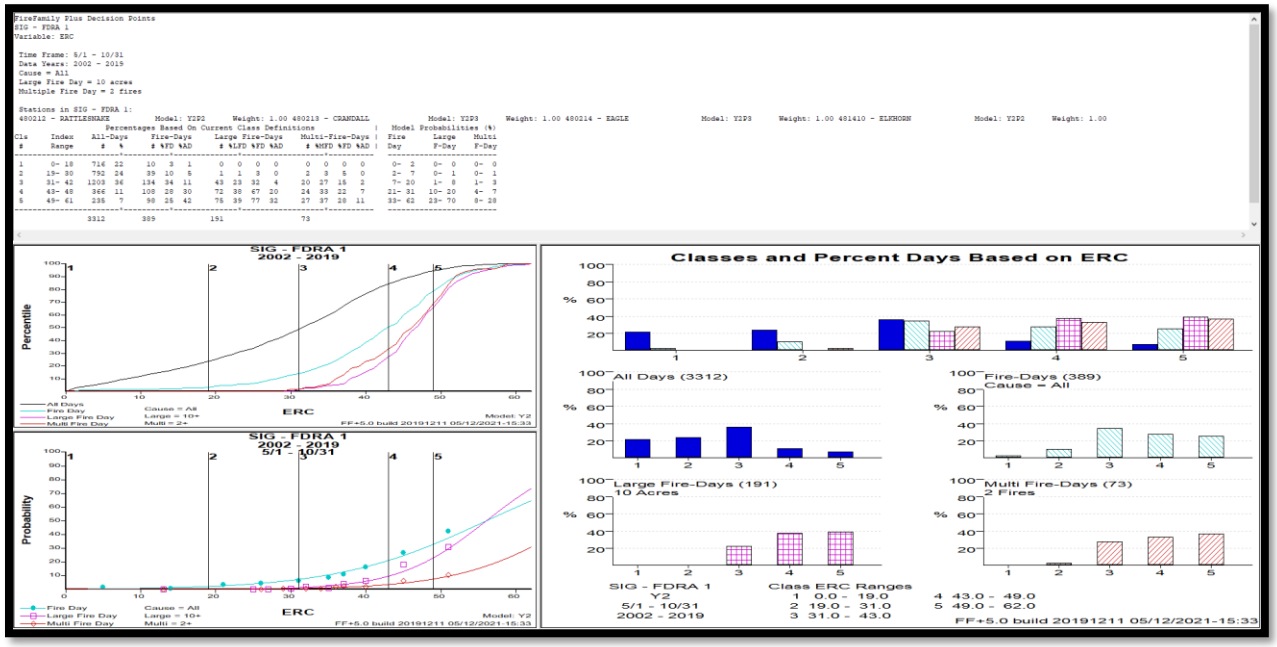


Table 18. FDRA 1 ERC- Y

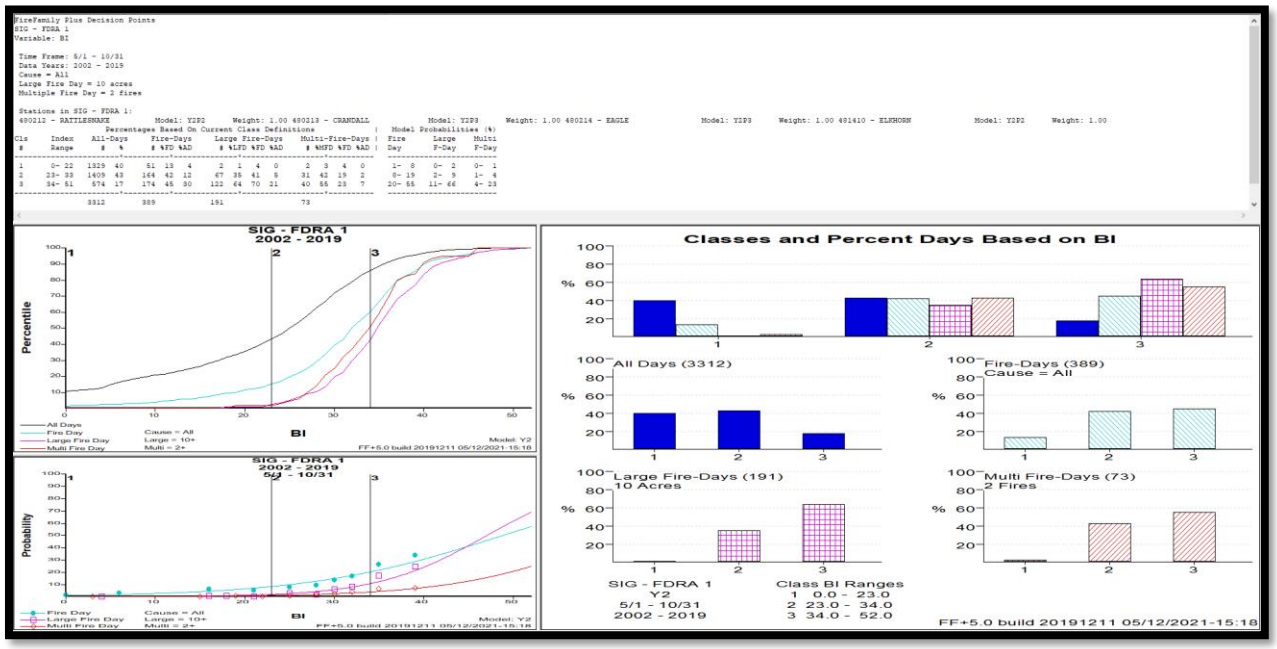


Table 19. FDRA 1 BI-Y

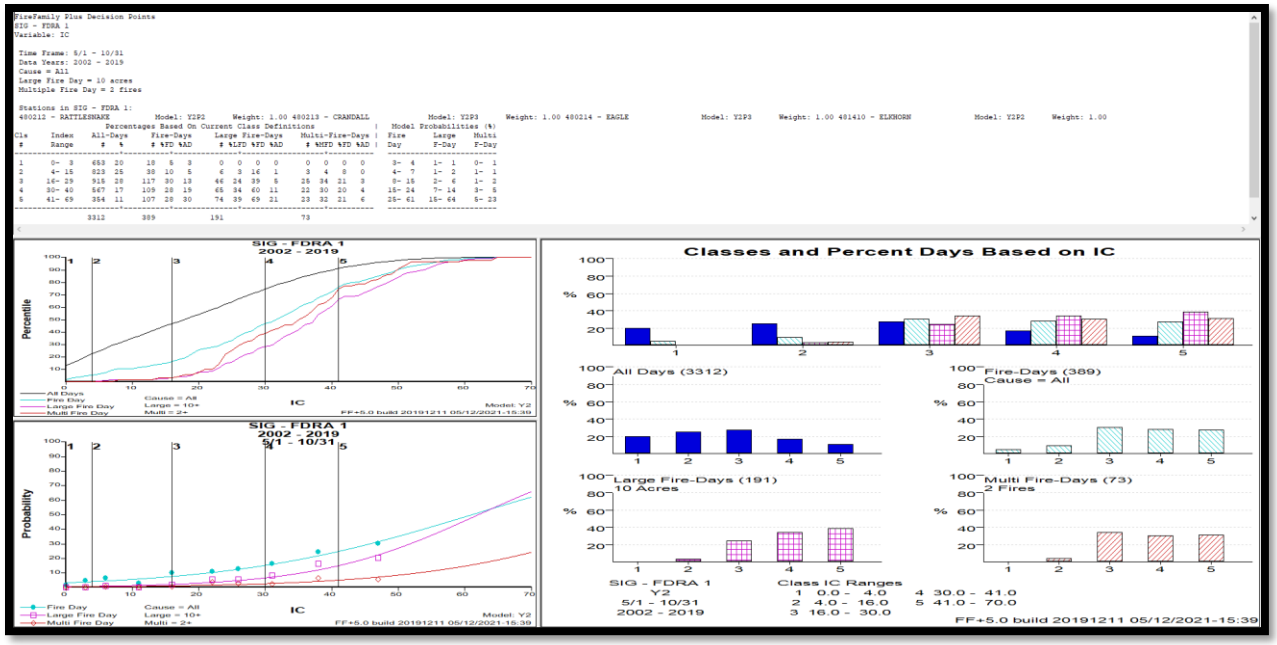


Table 20. FDRA 1 IC-Y

FDRA 2 – Bighorn Basin

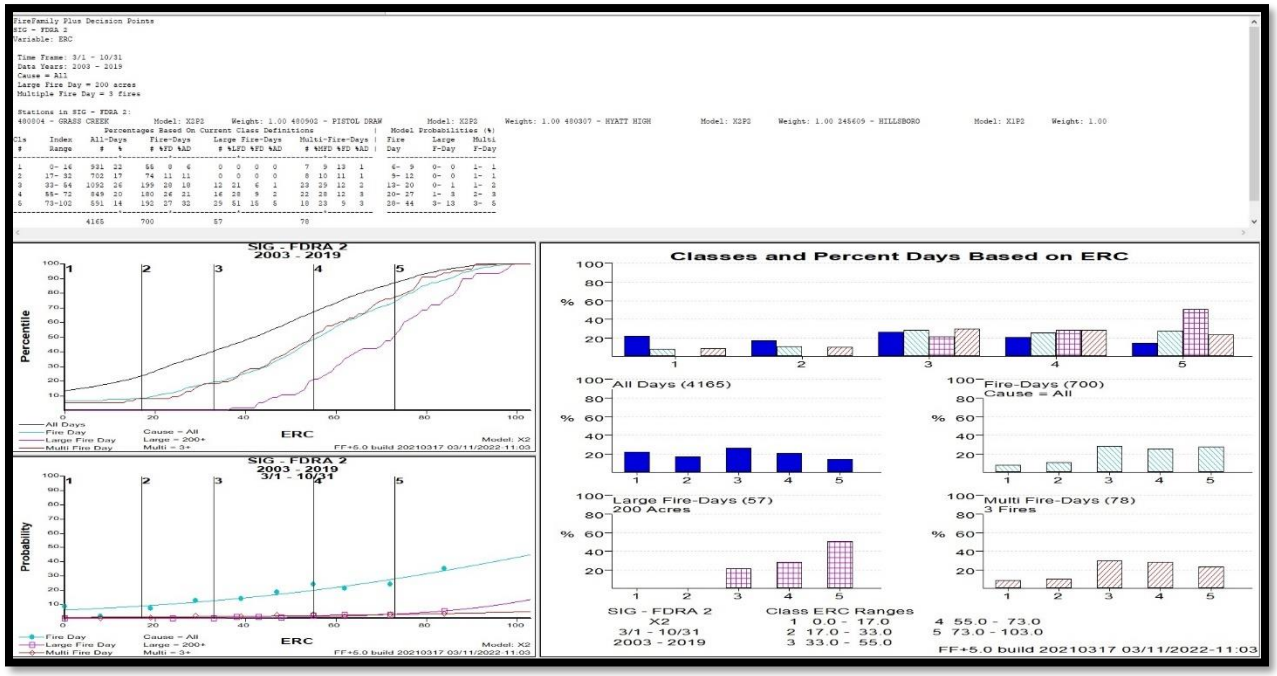


Table 21 FDRA 2 ERC-X

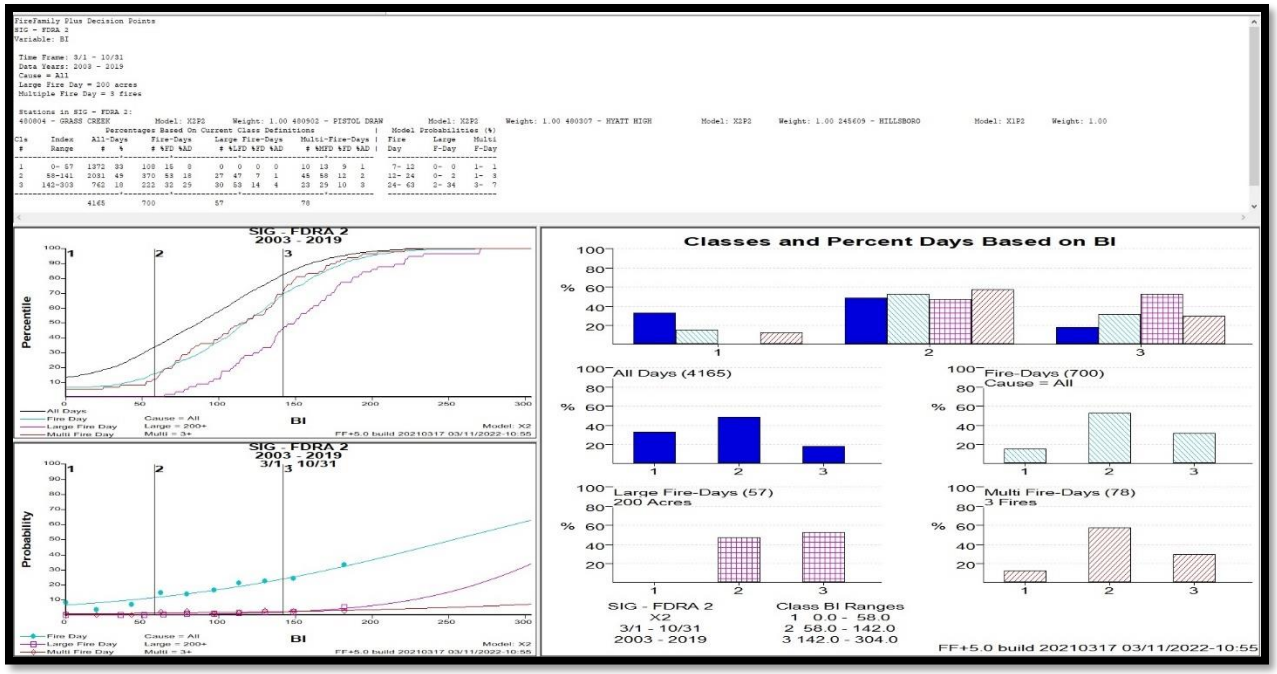


Table 22. FDRA 2 BI-X

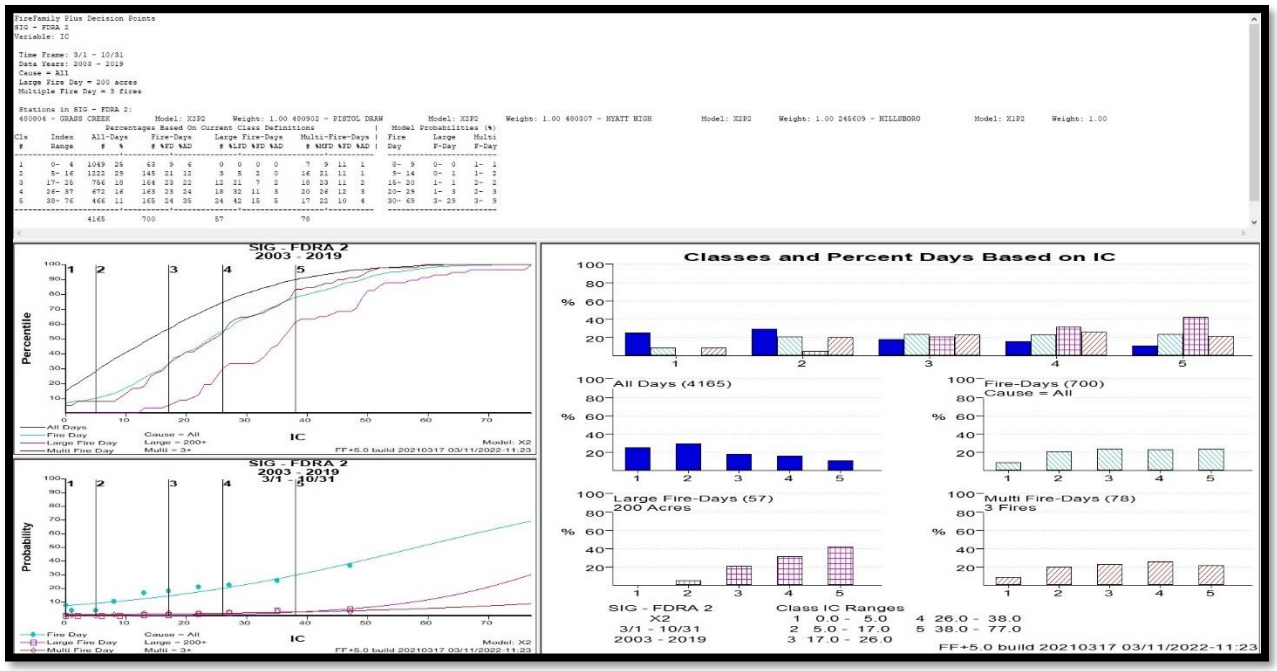


Table 23. FDRA 2 IC-X

FDRA 3 – Bighorn Mountains

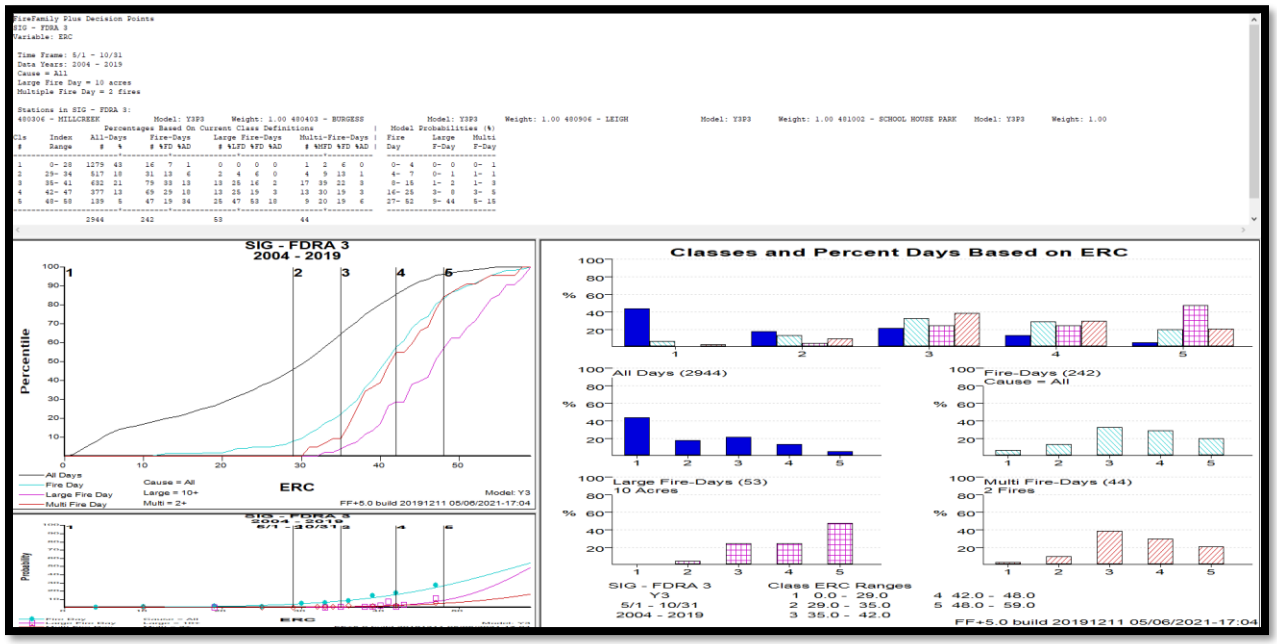


Table 24. FDRA 3 ERC-Y

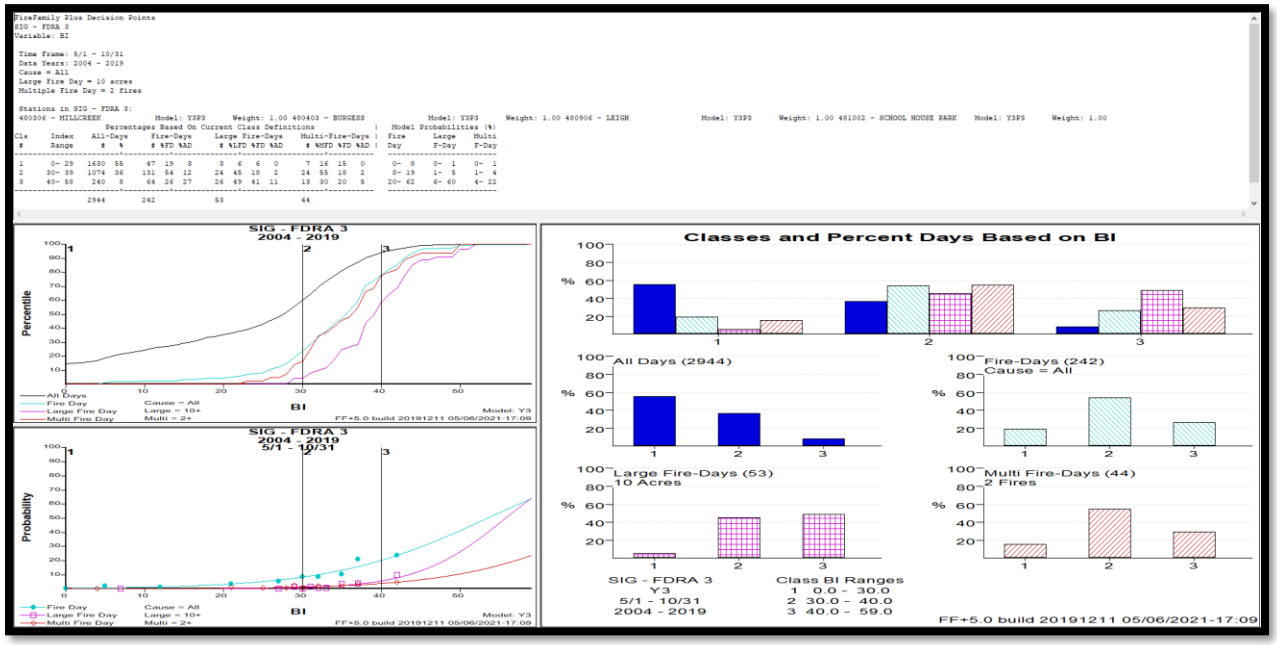


Table 25. FDRA 3 BI-Y

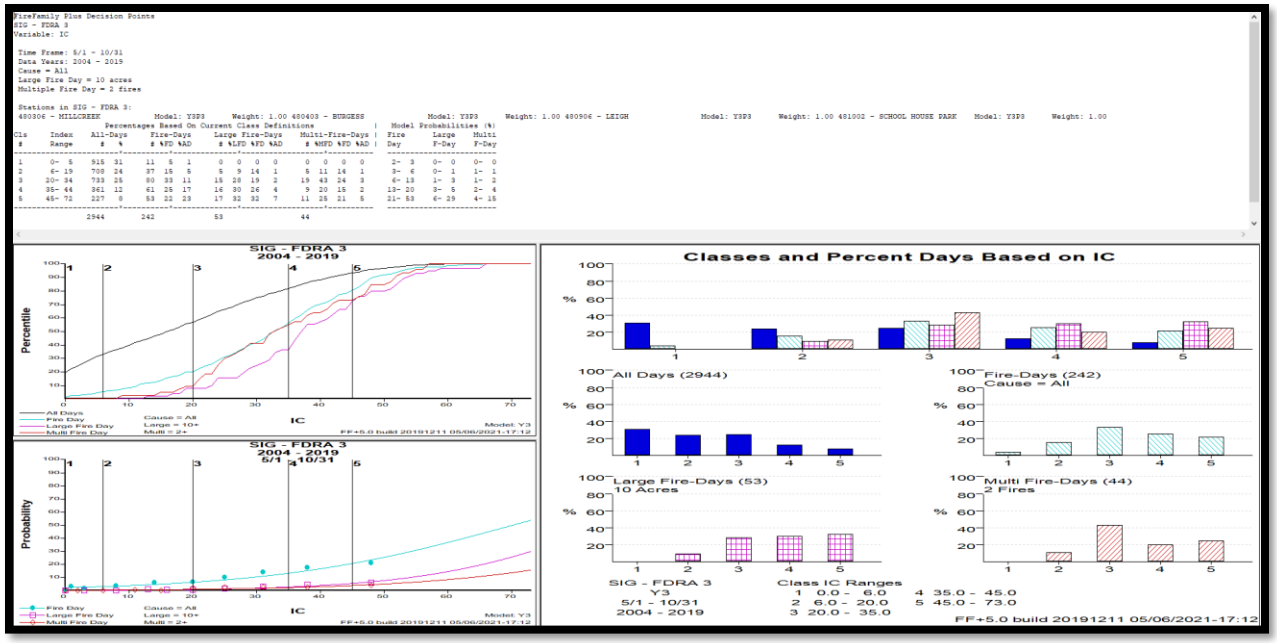


Table 26. FDRA 3 IC-Y

FDRA 4 – Copper/Sweetwater

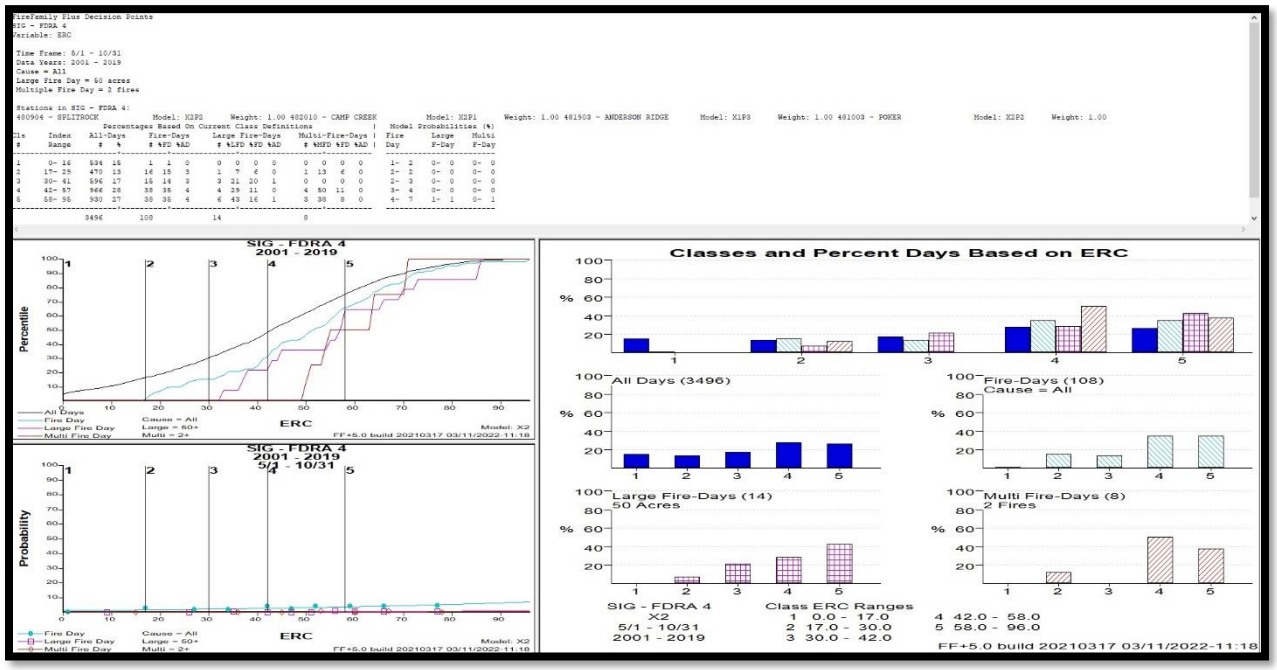


Table 27. FDRA 4 ERC-X

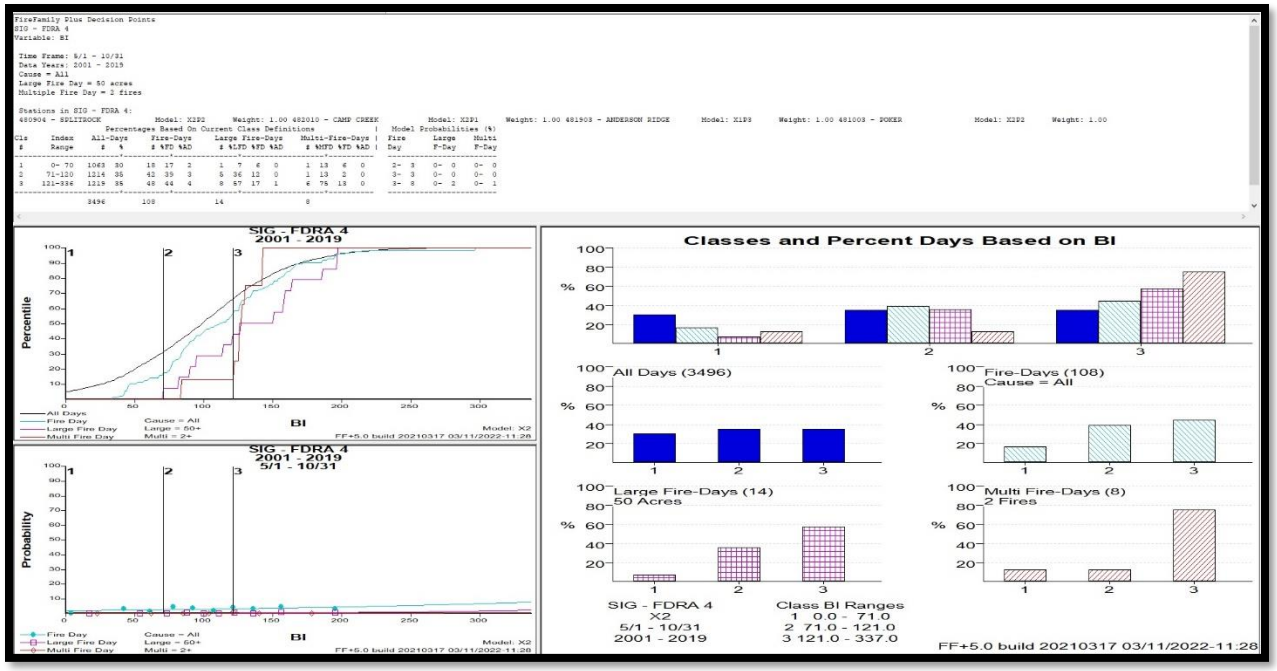


Table 28. FDRA 4 BI-X

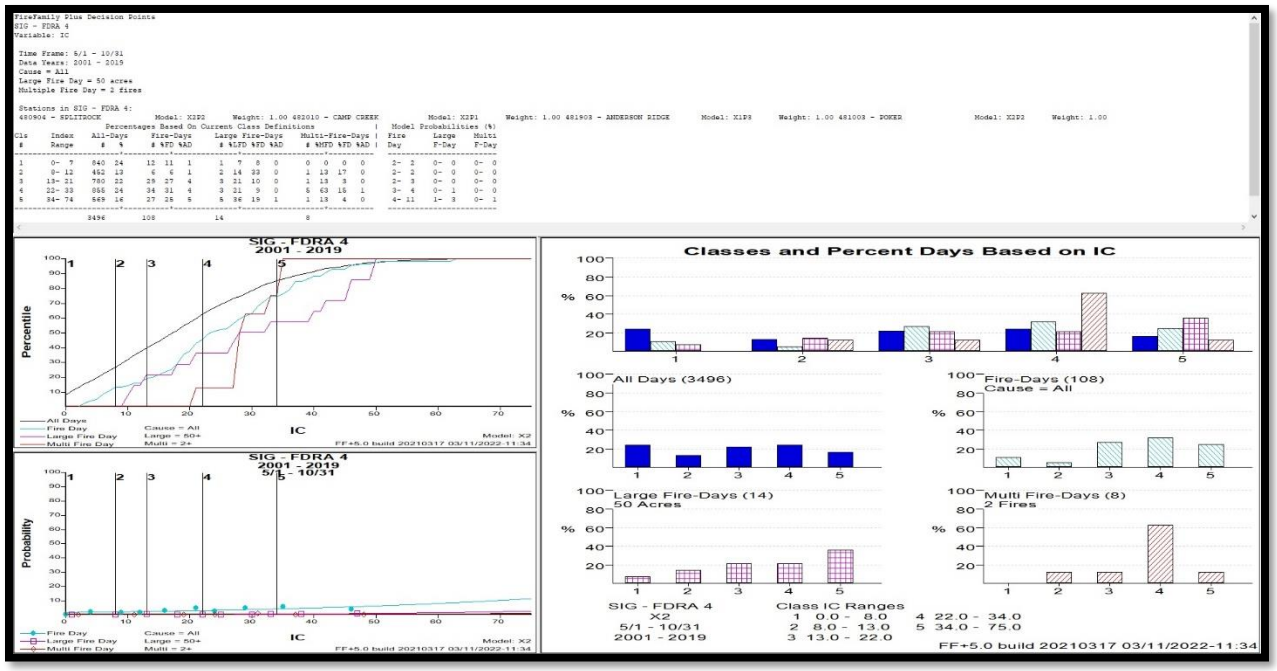


Table 29. FDRA 4 IC-X

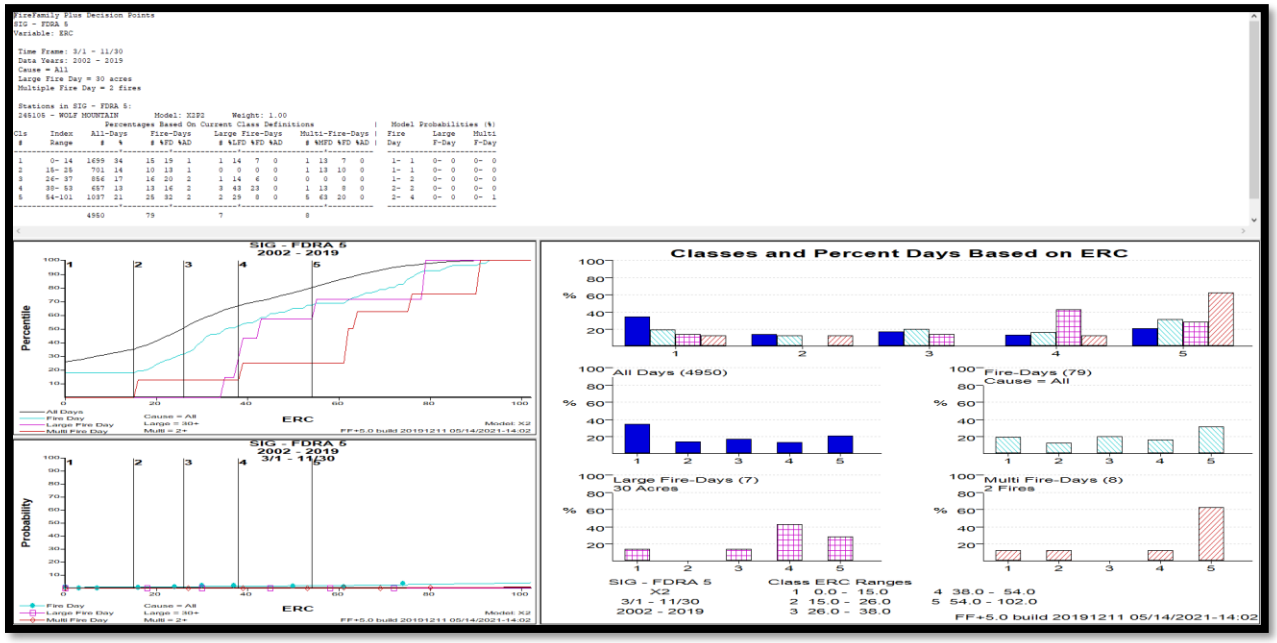


Table 30. FDRA 5 ERC-X

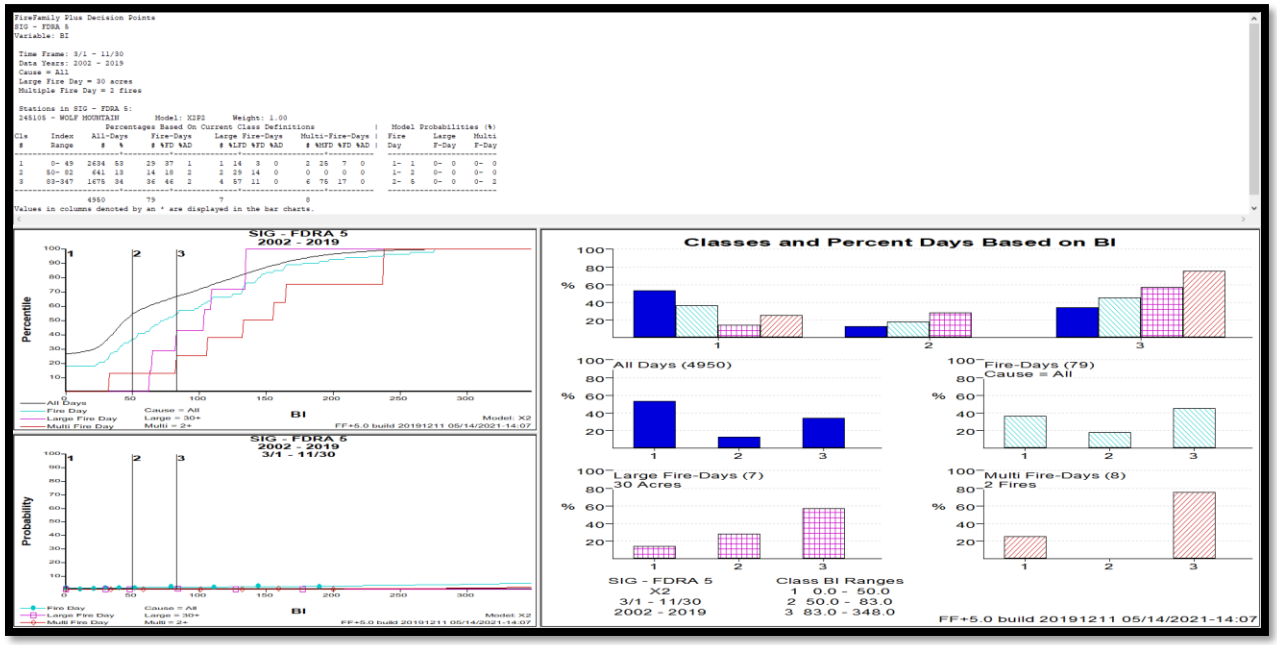


Table 31. FDRA 5 BI-X

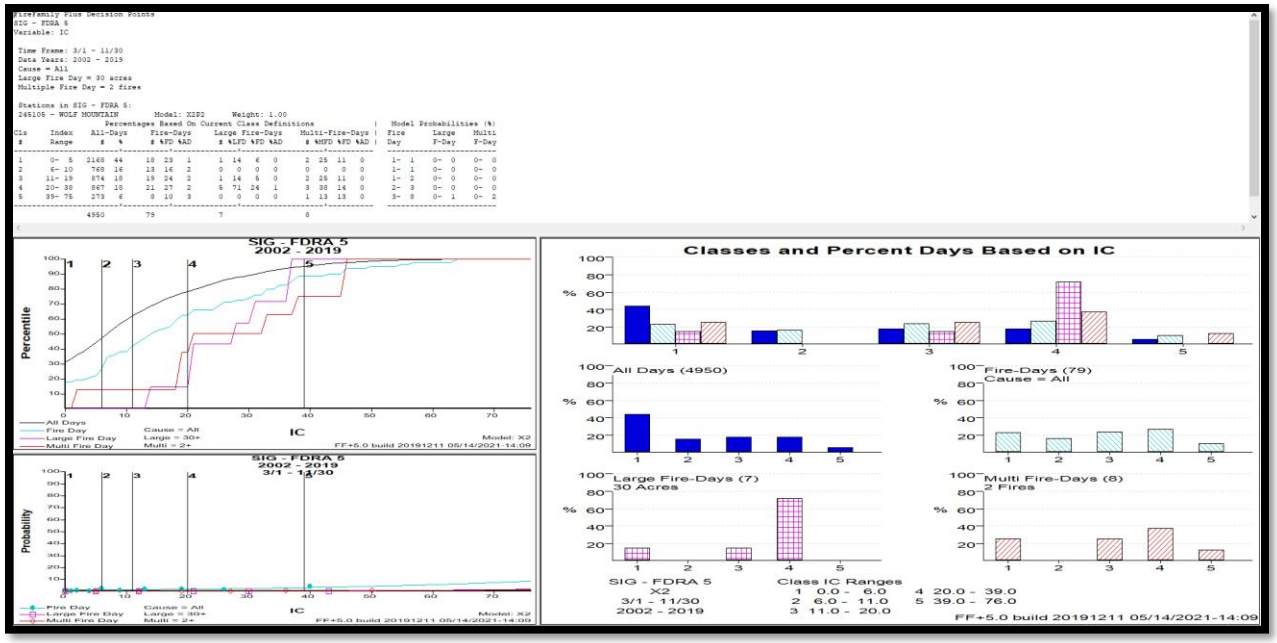


Table 32. FDRA 5 IC-X

FDRA 6 – Wind River Basin

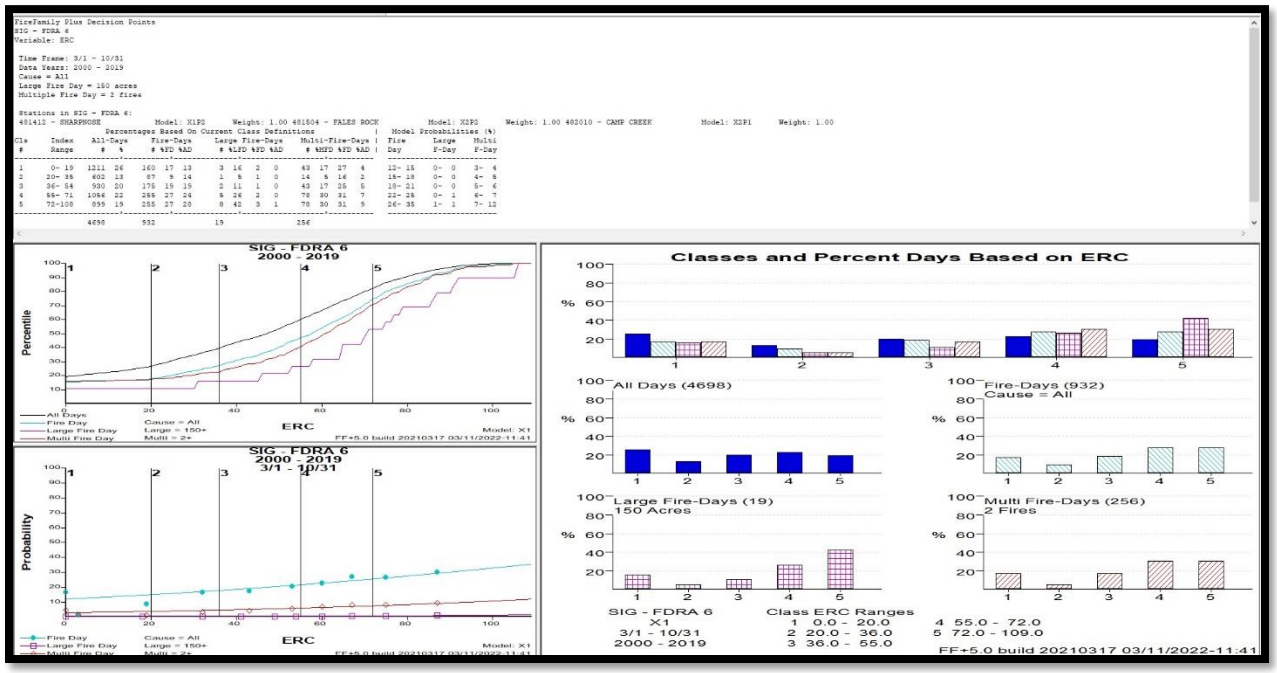


Table 33. FDRA 6 ERC-X

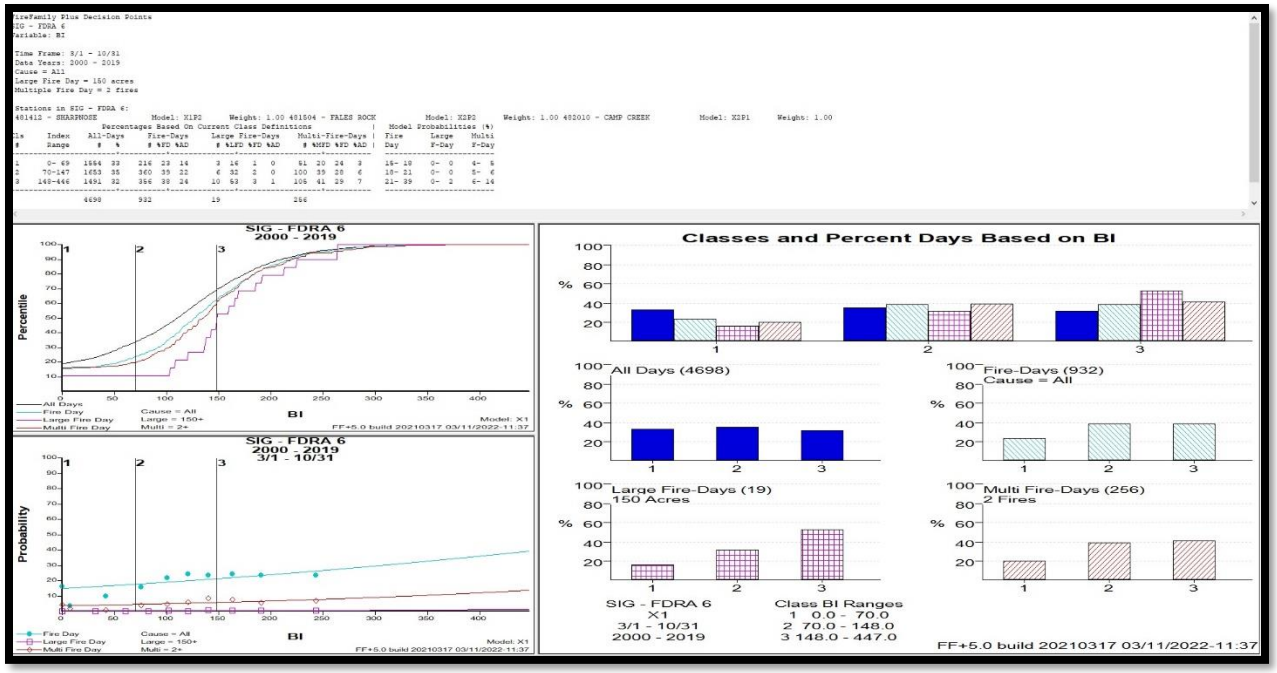


Table 34. FDRA 6 BI-X

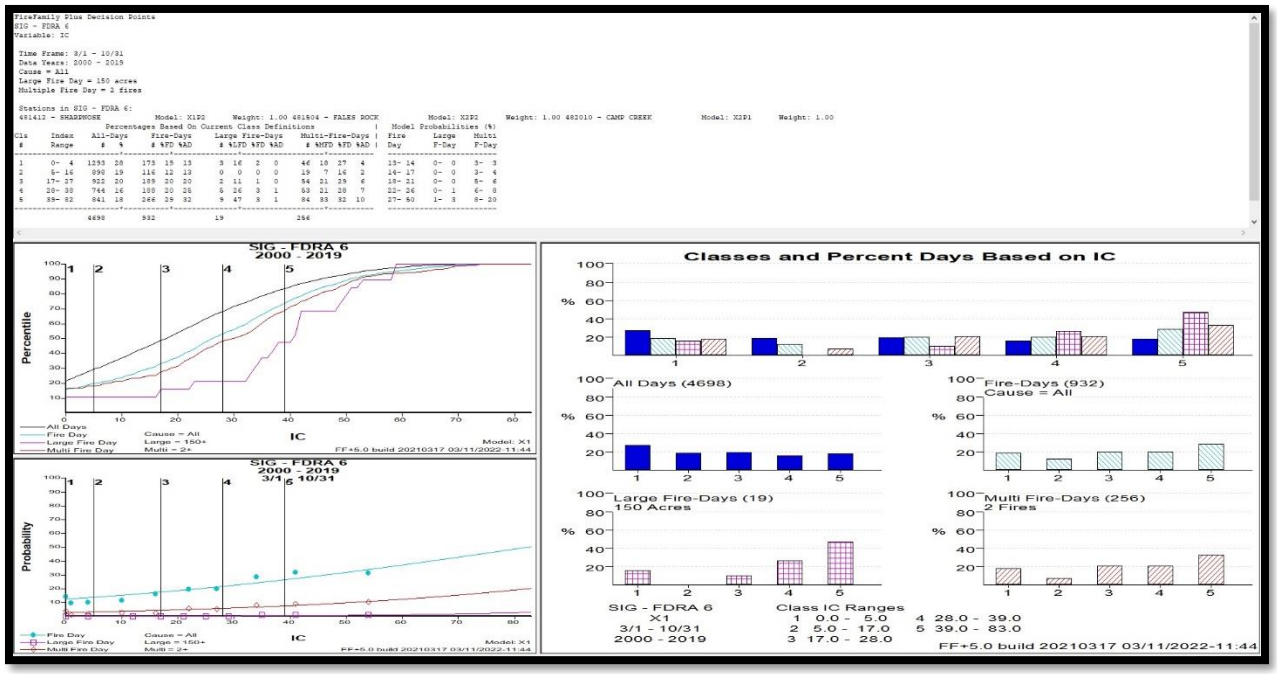


Table 35 FDRA 6 IC-X

FDRA 7 – Wind River Mountains

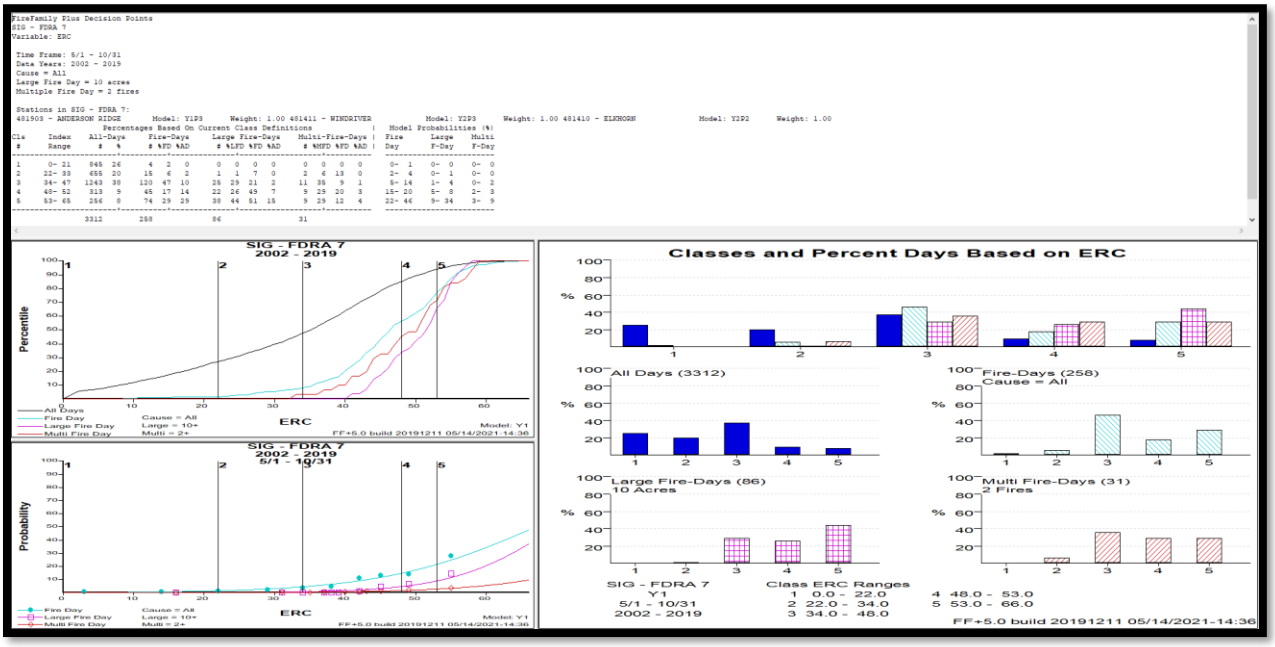


Table 36. FDRA 7 ERC-Y

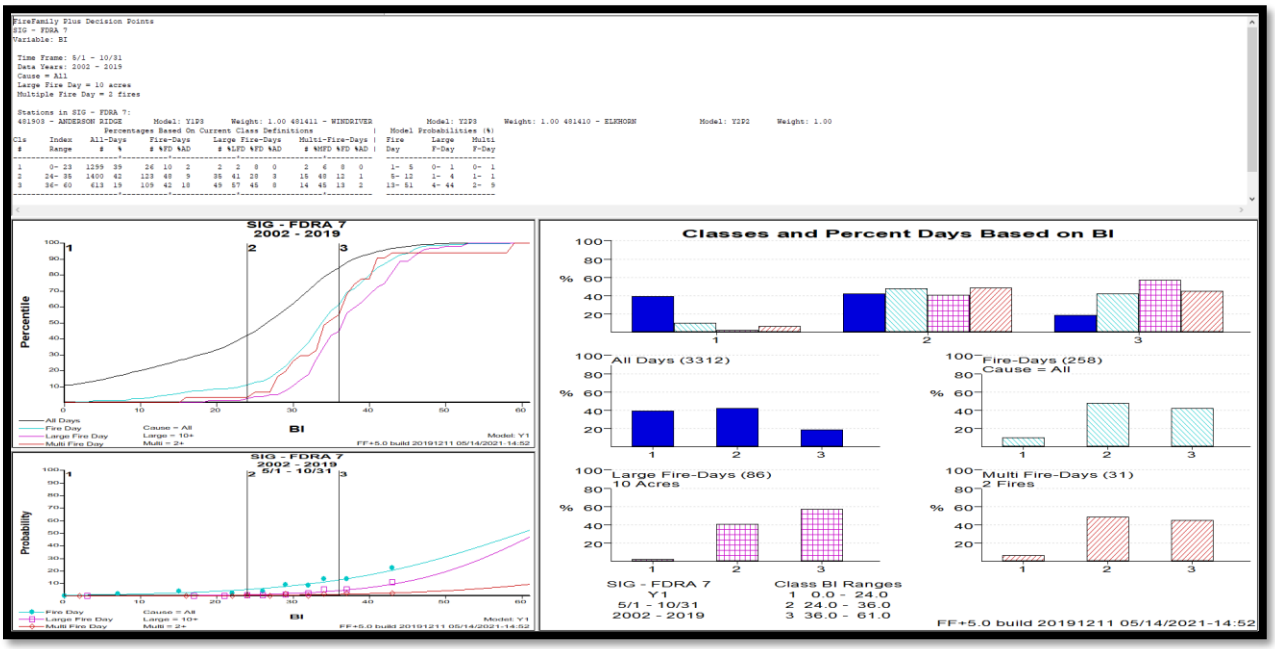


Table 37. FDRA 7 BI-Y

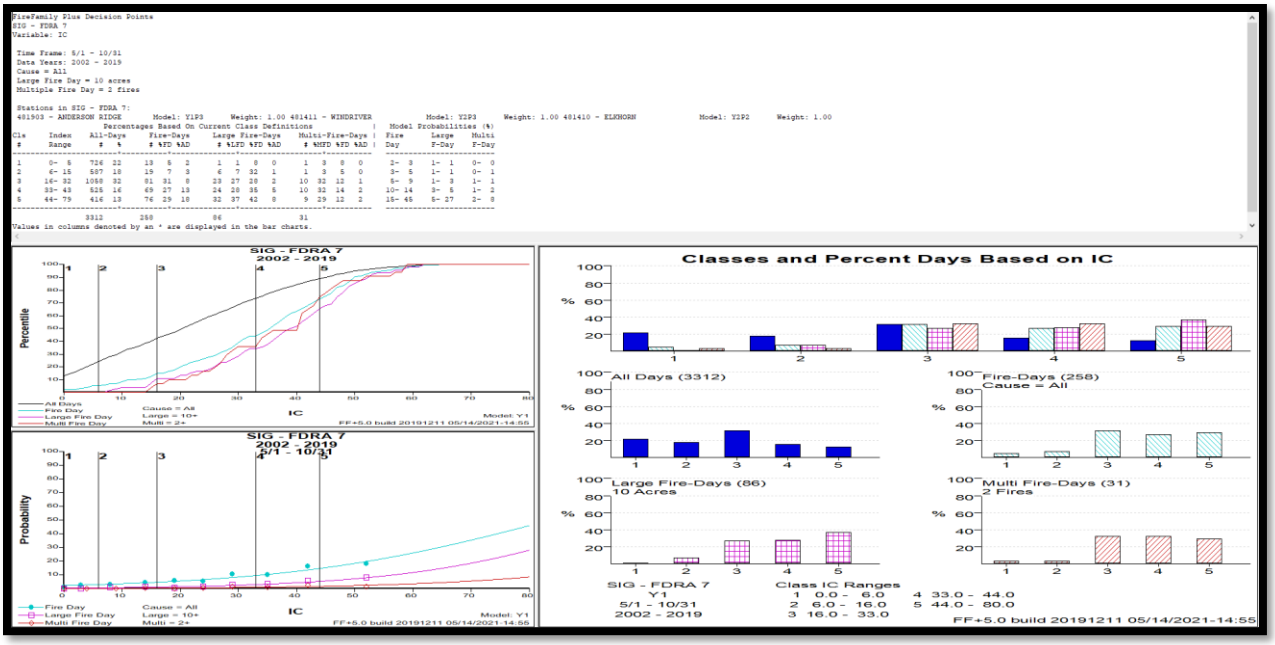
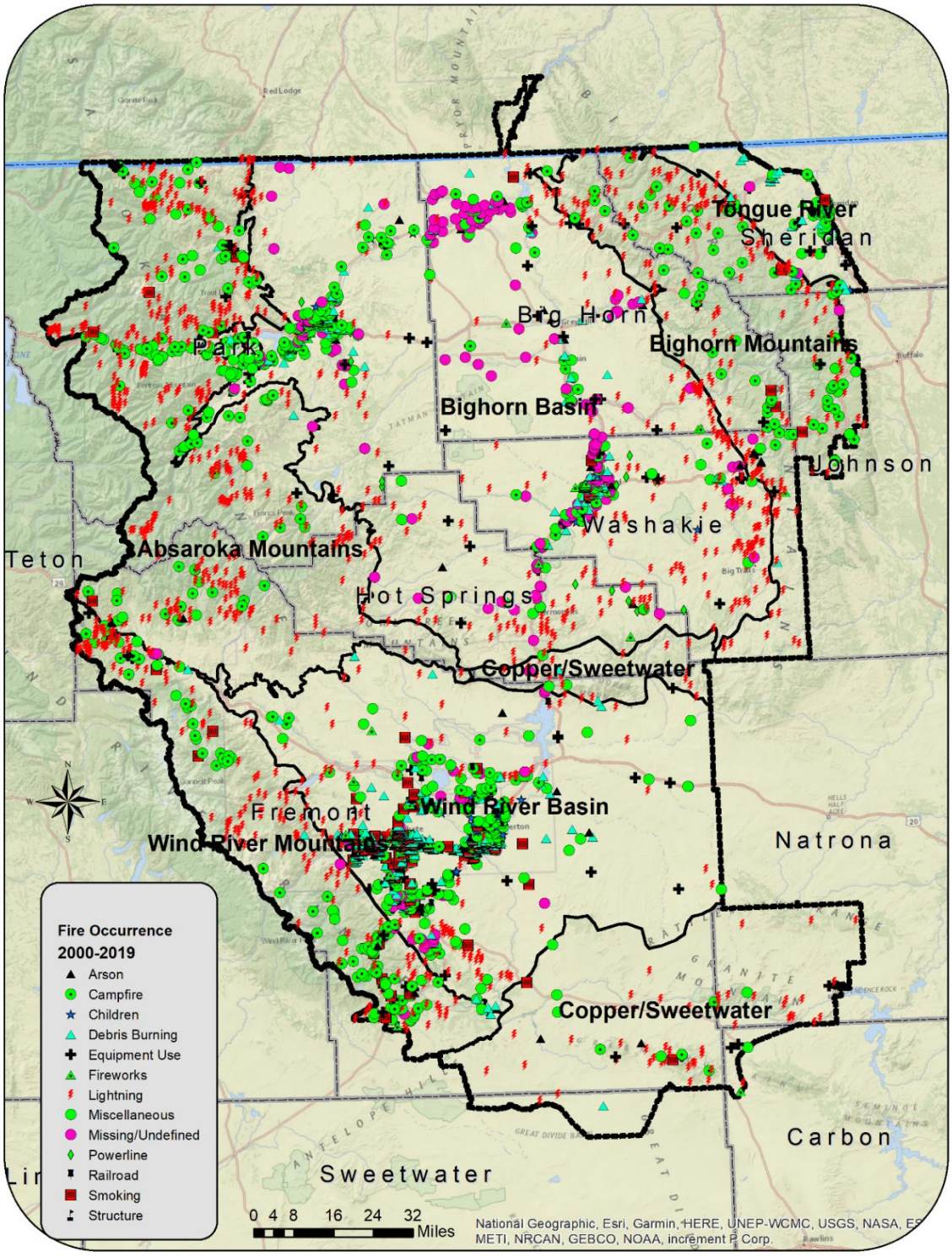
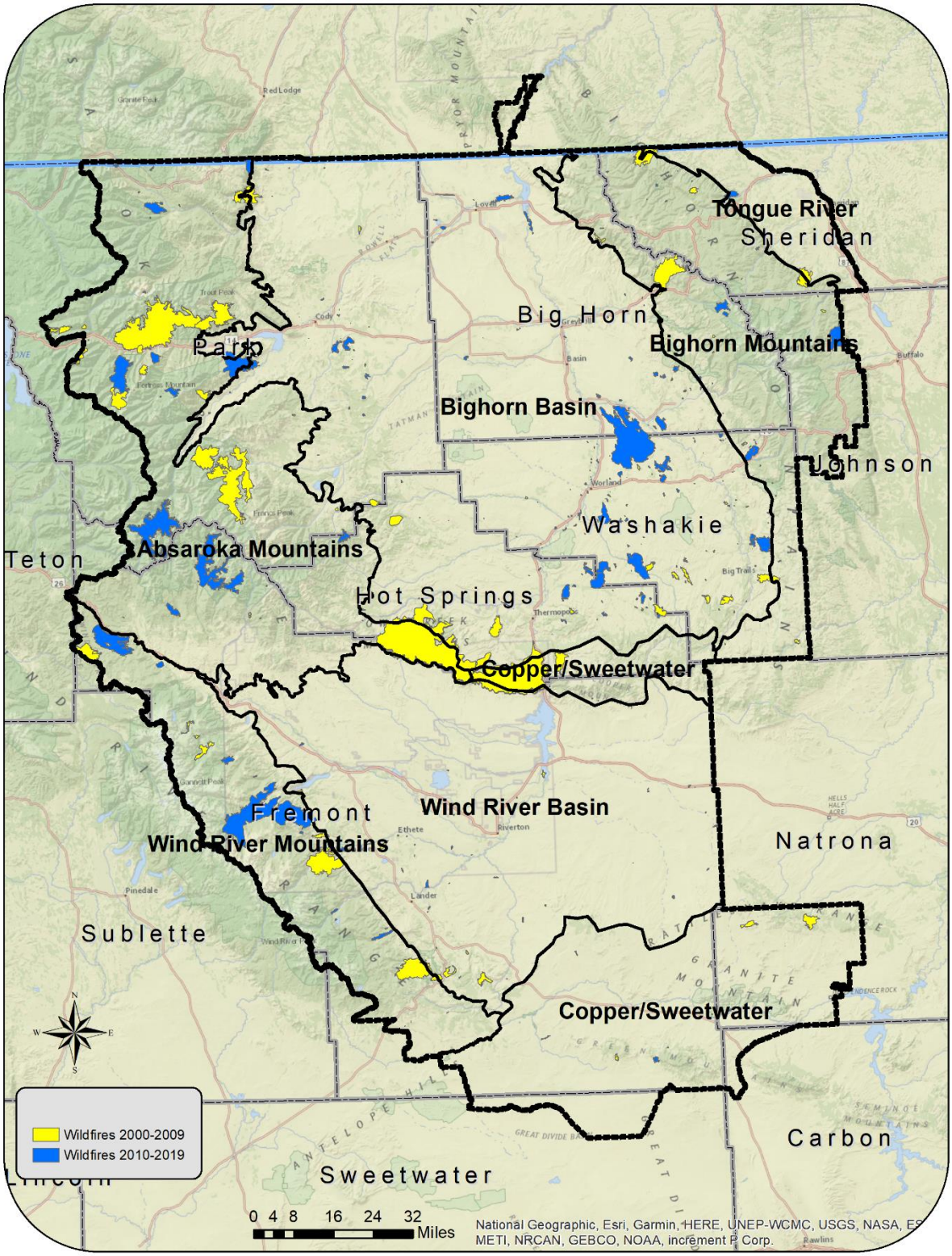


Table 38. FDRA 7 IC-Y

Appendix H **FIRE OCCURRENCE**



Map 10. Wildfire Point Data Map



Map 11. Large Fire Map

Appendix I **FIRE DANGER RATING AREA DETAILS**

1. FDRA 1 Absaroka Mountains

- General Location:

The FDRA is located along the NW portion of the Dispatch Zone; borders Montana to the north; Yellowstone National Park and the Bridger-Teton NF to the west; Bighorn Basin FDRA to the east and Wind River Mountains and Wind River Basin FDRA's to the south. The FDRA encompasses most of the Shoshone National Forest north of the Wind River including the Clarks Fork, Wapiti, Greybull, and a portion of the Wind River Ranger Districts. The FDRA also includes a portion of the Cody and Worland Field Office BLM, State of Wyoming lands and Wind River Agency BIA lands along the Absaroka foothills east of the forest within the Bighorn Basin. Within the NW portion of the Wind River Basin, the FDRA includes a portion of Wind River Agency BIA lands in the Owl Creek Mountains west of Blondie Pass, Lander Field Office BLM and State of Wyoming lands. Park, Hot Springs, and Fremont Counties are within the FDRA. Fire Weather Forecast Zone (FWZ) 286 covers the majority of the FDRA and FWZ 287 covers the Owl Creek Mountains portion of the FDRA.

- Vegetation:

Predominate vegetation types are sagebrush-grass (46%) and mixed conifer (35%). Plant communities represented include alpine, coniferous forest, montane meadow-parkland, sage-grass, and riparian. Lower elevation vegetation includes annual and perennial grasses. Much of the mountainous area includes sparse barren rocky ridges interspersed with snow/ice at higher elevations that are unburnable (17%). Since 2000 approximately 214,000 acres have burned mostly within the coniferous forest types, converting to more herbaceous fuels within the FDRA. Coniferous forests are the primary fire concern and are best represented by NFDRS fuel model Y. In the past 30 years, several beetle epidemics have caused significant tree mortality and over time fuel characteristics have changed with significant heavy dead fuel loadings in all size classes.

- Climate:

Typically, moisture is brought through the area from storms that track west to east. As air masses are forced up and over the higher elevations, heavier moisture is deposited at the higher elevations along the western side of the FDRA, decreasing to the lower elevations along the eastern and southern portions of the FDRA. The area receives on average 10-55" of annual precipitation. Approximately 29% of the precipitation occurs in the spring, 18% from summer thunderstorms and 53% in the fall and winter as snow.

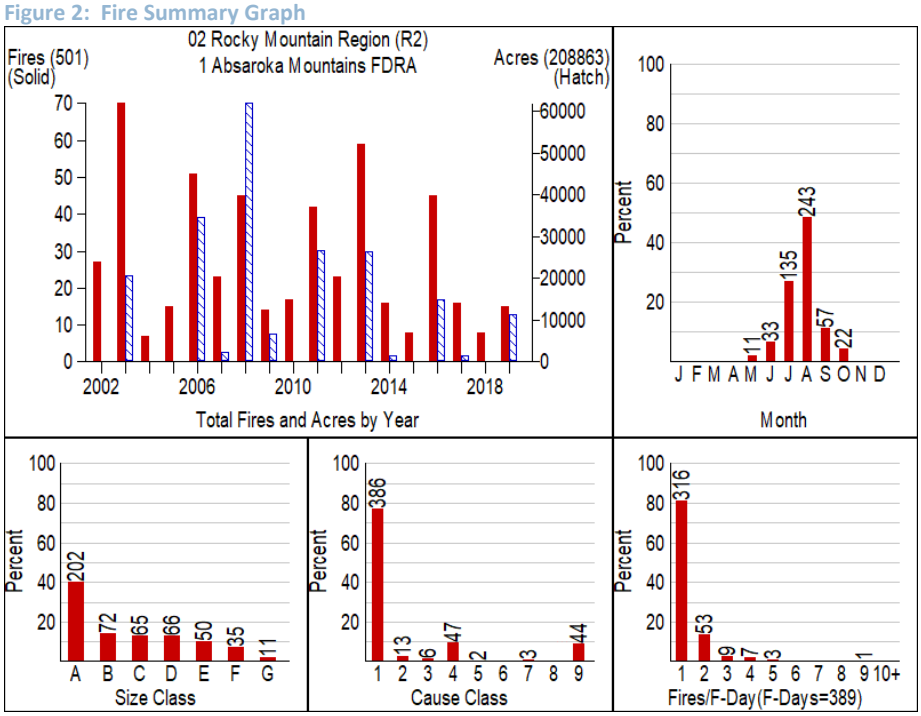
Summer temperatures also vary with elevation; average highs range from 60-72° with average lows from 36-44°.

- Topography:

The area is in the central Rocky Mountains east of the Continental Divide ranging from 4,652’ – 13,140’ in elevation. The majority of the FDRA occurs above 8,000’ (66%). Roughly half the area occurs on slopes < 40% (58%) with predominate eastern aspect. Two distinct mountains ranges occur with the FDRA, the Beartooth Mountains in the NE corner of the FDRA and the Absaroka Mountains in the remaining portion. The Beartooth’s are mostly granitic in composition with steep glaciated valleys sloping off the high elevation Beartooth Plateau containing numerous lakes and alpine vegetation. The Absaroka Mountains are highly dissected, rugged, steep and volcanic in composition.

- FDRA 1 Absaroka Mountains – Fire Summary Graph

Figure 2: 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 Bighorn Basin

- General Location

The FDRA is located in north central portion of the Dispatch Zone, borders Montana to the north, Absaroka Mountain FDRA to the west, Copper/Sweetwater FDRA to the south and the Bighorn Mountains FDRA to the east.

The FDRA encompasses a small portion of eastern Shoshone National Forest and private inholdings on the Clarks Fork and Wapiti Ranger Districts. The majority of the FDRA is within the Cody and Worland Field Office BLM lands with scattered State of Wyoming lands. The FDRA also includes a portion of the northeastern Wind River Agency BIA lands in the Owl Creek Mountains. There is a narrow finger of the FDRA within Montana, the Bighorn Canyon National Recreation Area managed by NPS. Park, Bighorn, Washakie, and Hot Springs Counties are within the FDRA in Wyoming and Carbon County within Montana. Fire Weather Forecast Zones (FWZ) 129, 275, 276, 282 and 287 covers the FDRA.

- Vegetation:

Predominate vegetation type is sagebrush-grass (80%) with numerous different river corridors with associated irrigated agricultural lands scattered throughout the FDRA. Plant communities represented include high desert perennial grasses, Wyoming big sagebrush, mountain big sagebrush, rabbitbrush annual grasses, mixed confers and scattered bitterbrush and mountain mahogany. Areas of sparse barren ground is scattered throughout the FDRA and is considered unburnable (3%). Forested stands are found in the Heart Mountain, Grass Creek and Owl Creek Mountains along drainage bottoms and north aspects. Since 2000 approximately 162,000 acres have burned converting these areas to more herbaceous fuels within the FDRA. Grass-sagebrush fuel types are the primary fire concern and are best represented by NFDRS fuel model X.

- Climate:

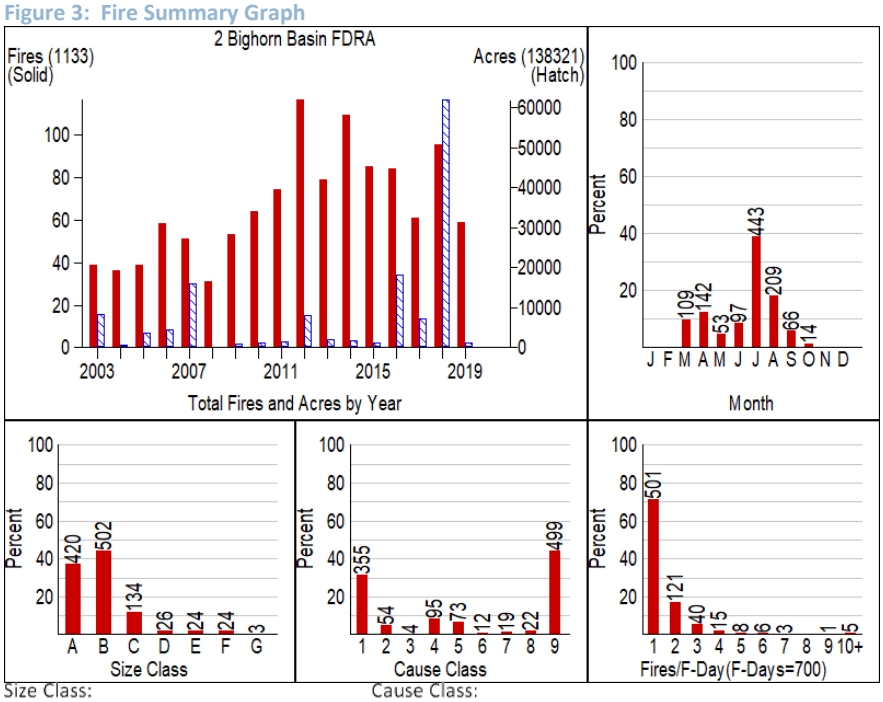
The FDRA is considered arid to semi-arid desert with the least amount of moisture received near the center of the FDRA, with precipitation increasing along the east and west sides. The majority of the area receives on average 7-15” annual precipitation with some of the fringe areas receiving up to 32”. Winters are typically dry with any snow received evaporating, blowing off exposed areas into drifts or melting. Approximately 44% of the precipitation occurs in the spring, 27% from summer thunderstorms and 29% in the fall and winter as snow. Summer temperature average highs range from 74-87° with average lows from 43-55°.

- Topography:

Elevation ranges from 3,586’ to 8,101’. The lowest elevation with the dispatch zone occurs with this area. Slopes range from fairly flat to rolling hills to steep terrain. Approximately 96% of the terrain is < 40% with predominate eastern aspect.

- FDRA 2 Bighorn Basin – 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	

3. FDRA 3 Bighorn Mountains

- General Location:

The FDRA is in central to NW corner of the Dispatch Zone, borders Montana to the north, Bighorn Basin FDRA to the west, Tongue River FDRA and Casper Dispatch Zone to the east and Wind River Basin FDRA to the south. The FDRA encompasses the Bighorn National Forest. The FDRA also includes a portion of the Worland Field Office BLM, State of Wyoming, and private lands along the western side of the forest and Buffalo Field Office BLM, State of Wyoming, and private lands on the east side. Big Horn, Washakie, Sheridan, and Johnson Counties are within the FDRA. Fire Weather Forecast Zone (FWZ) 284 covers the majority of the FDRA, FWZ 274 covers the western edge FWZ 275, 282 and 285 covers the eastern and southern portion of the FDRA.

- Vegetation:

Predominate vegetation types are mixed conifer (54%) and sagebrush-grass (44%). Plant communities represented include alpine, coniferous forest, montane meadow-parkland, sage-grass, and riparian. Lower elevation vegetation includes annual and perennial grasses. Dense lodgepole pine and spruce/fir interspersed with open parks across the forest. Drier mid to lower slopes support ponderosa pine along the eastern and western sides of the mountains. Higher elevations contain sparse barren rocky terrain interspersed with wet meadows that are unburnable (2%). Since 2000 approximately 25,000 acres have burned mostly within the coniferous forest types, converting to more herbaceous fuels within the FDRA. Coniferous forests are the primary fire concern and are best represented by NFDRS fuel model Y.

- Climate:

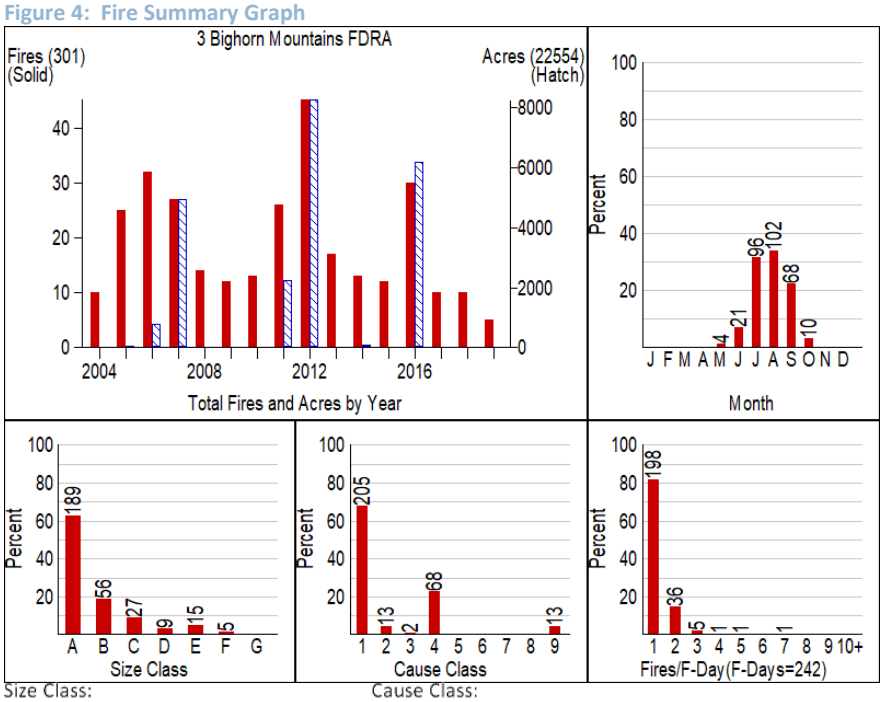
The FDRA receives on average 12-37” of annual precipitation. Approximately 37% of the precipitation occurs in the spring, 19% from summer thunderstorms and 44% in the fall and winter as snow. Much of the FDRA is covered by snow from mid-October to mid-May. Summer temperatures also vary with elevation; average highs range from 59-70° with average lows from 37-47°.

- Topography:

Elevation ranges from 4,610’ to 13,176’. Slopes range from fairly flat on top of the Bighorn’s to very steep canyons on both the eastern and western slopes of the Bighorns. Approximately 84% of the terrain is < 40% with predominate western aspect.

- FDRA 3 Bighorn Mountains – 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	

4. FDRA 4 Copper/Sweetwater

- General Location:

The FDRA is split into two different segments, one near the center of the dispatch zone along the eastern Owl Creek Mountains and the other along the southern boundary of the Dispatch Zone in the Green Mountains. The central portion of FDRA borders Bighorn Basin FDRA to the north, Wind River Basin FDRA to the south, Absaroka Mountains FDRA to the west and the Casper Dispatch Zone to the east. The southern segment of the FDRA borders Wind River Basin FDRA to the north, Wind River Mountains FDRA to the west and the Casper Dispatch Zone to the east and south. The FDRA includes a portion of the Worland and Lander Field Office BLM, State of Wyoming and private lands. Washakie, Hot Springs, Fremont, Natrona, Carbon and Sweetwater Counties are within the FDRA. Fire Weather Forecast Zone (FWZ) 285 and 289 covers the majority of the FDRA, FWZ 303 covers the southeastern portion of the FDRA within Carbon County.

- Vegetation:

Predominate vegetation types are sagebrush-grass (93%) with minor amount of conifer's (6%). Plant communities represented include high desert perennial grasses, salt brush, Wyoming big sagebrush, mountain big sagebrush, annual grasses, mixed confers and scattered bitterbrush and mountain mahogany. Areas of sparse barren ground is scattered through the FDRA and is considered unburnable (1%). Since 2000 approximately 11,000 acres have burned converting these areas to more herbaceous fuels within the FDRA. Grass-sagebrush fuel types are the primary fire concern and are best represented by NFDRS fuel model X.

- Climate:

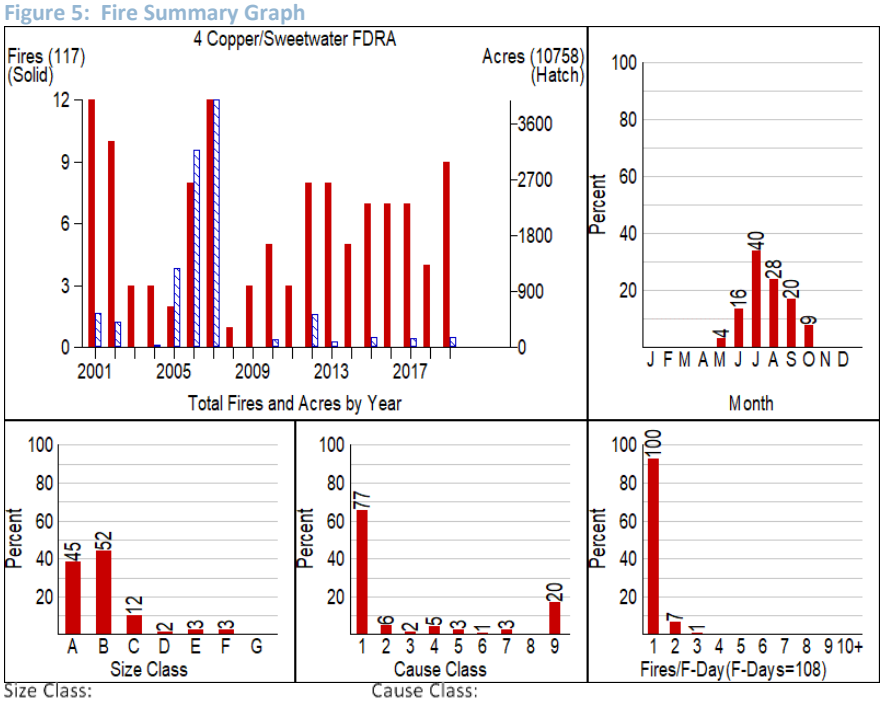
The FDRA receives on average 10-18" of annual precipitation. Approximately 48% of the precipitation occurs in the spring, 25% from summer thunderstorms and 27% in the fall and winter as snow. Summer temperatures also vary with elevation; average highs range from 71-87° with average lows from 43-54°. Click here to enter text.

- Topography:

Elevation ranges from 4,449' to 9,233'. Slopes range from fairly flat in the Wind River Basin to rolling hills to steeper terrain in the Owl Creek and Green Mountain portions of the zone. Approximately 97% of the terrain is < 40% with no predominate aspect.

FDRA 4 Copper/Sweetwater – Fire Summary Graph

Figure 5: 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 Tongue River

- General Location:

The FDRA is in NE corner of the Dispatch Zone, borders Montana to the north, Bighorn Mountains FDRA to the west, and the Casper Dispatch Zone to the east. The FDRA encompasses a minor amount of the Bighorn National Forest along the western boundary. The FDRA includes State of Wyoming and private lands and a minor amount of Buffalo Field Office BLM lands. It covers a portion of Sheridan County. Fire Weather Forecast Zone (FWZ) 274 covers the FDRA.

- Vegetation:

Predominate vegetation types are mostly grass (57%) with minor sagebrush (8%) and conifer (14%). The area is characterized by numerous creek drainages with a mix of deciduous trees and agricultural areas along the drainages. Plant communities represented include perennial grasses, Wyoming big sagebrush, mountain big sagebrush, ponderosa pine, Douglas-fir. Since 2000 approximately 11,000 acres have burned. Grass fuel types are the primary fire concern and are best represented by NFDRS fuel model X.

- Climate:

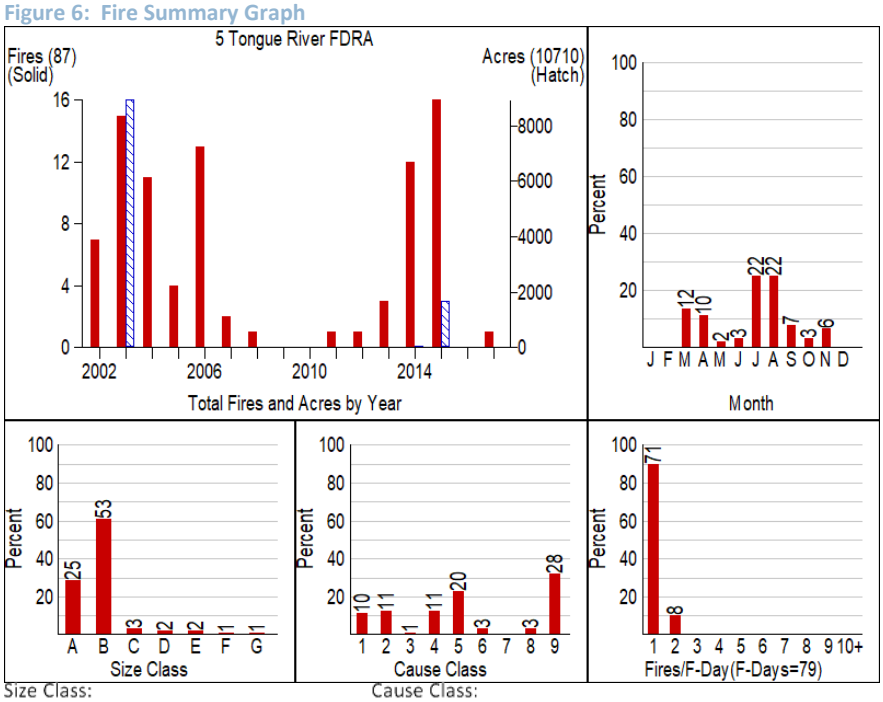
The FDRA receives on average 12-23" of annual precipitation with the least amount received around Sheridan and the most along the northern Bighorn Mountains. Approximately 42% of the precipitation occurs in the spring, 22% from summer thunderstorms and 36% in the fall and winter as snow. Summer temperatures also vary with elevation; average highs range from 73-87° with average lows from 41-53°.

- Topography:

Elevation ranges from 3,622' to 6,477'. The area consists of rolling plains and lowland flats within the Powder River Basin with steep slopes along the western portion bordering the Bighorn Mountains. Approximately 95% of the terrain is < 40% with predominately eastern aspect.

FDRA 5 Tongue River – 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	

6. FDRA 6 Wind River Basin

- General Location:

The FDRA is located in south central portion of the Dispatch Zone, borders Absaroka Mountains and Copper/Sweetwater FDRA to the north, Wind River Mountains FDRA to the west, Copper/Sweetwater FDRA to the south and the Casper Dispatch Zone to the east. The FDRA encompasses a portion of the Lander Field Office BLM, State of Wyoming, and private lands within the Wind River Basin. It covers a portion of Fremont County. Fire Weather Forecast Zone (FWZ) 283 covers majority of the FDRA.

- Vegetation:

Predominate vegetation types are sagebrush-grass (84%) with minor and conifer (4%). Plant communities represented include perennial grasses, Wyoming big sagebrush, mountain big sagebrush, lodgepole pine, Douglas-fir, limber pine, juniper and scattered bitterbrush and mountain mahogany. Since 2000 approximately 152,000 acres have burned, converting to more grass fuel types. Sagebrush-grass fuel types are the primary fire concern and best represented by NFDRS fuel model X.

- Climate:

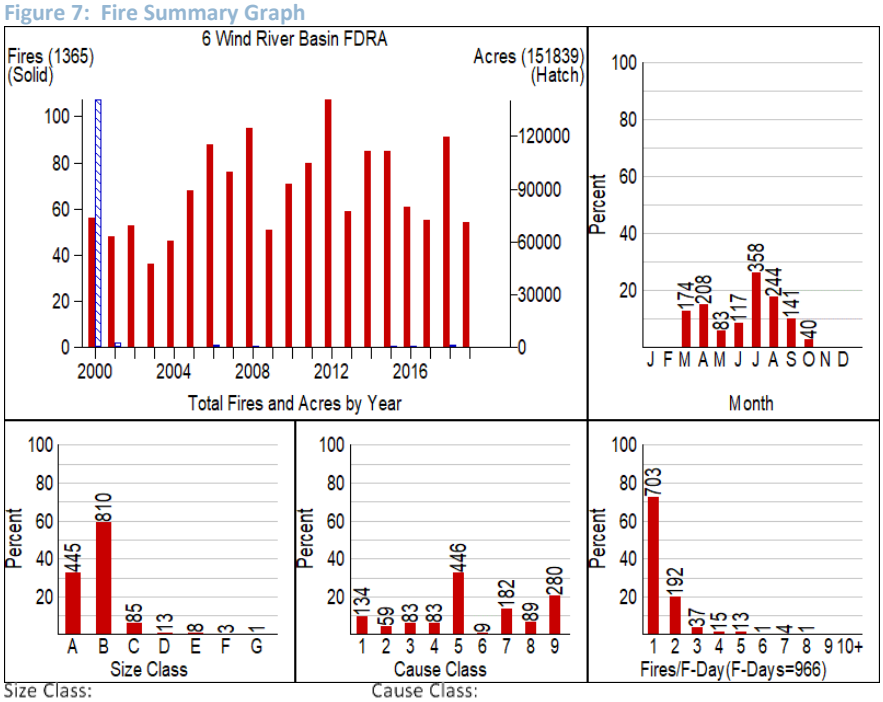
The FDRA receives on average 10-28” of annual precipitation with the least amount received within the lowest elevations of the area. Approximately 45% of the precipitation occurs in the spring, 25% from summer thunderstorms and 30% in the fall and winter as snow. Summer temperatures also vary with elevation; average highs range from 70-81° with average lows from 42-54°.

- Topography:

Elevation ranges from 4,574’ to 7,435’. The area consists of rolling terrain and lowland flats across most of the area dissected by steep canyons and badlands. Approximately 99% of the terrain is < 40% with predominately no aspect.

FDRA 6 Wind River Basin – Fire Summary Graph

Figure 7: 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 Wind River Mountains

- General Location:

The FDRA is located in southwest portion of the Dispatch Zone, borders Absaroka Mountains FDRA to the north, Wind River Basin FDRA to the east, Teton Dispatch Zone to the west and Copper/Sweetwater FDRA and Casper Dispatch Zone to the south. The FDRA encompasses southern portion of the Shoshone National Forest, a portion of the Lander Field Office BLM, State of Wyoming and private lands within the Wind River Basin and the southwestern portion of Wind River Agency BIA lands. It covers a portion of Fremont County. Fire Weather Forecast Zone (FWZ) 288 covers majority of the FDRA.

- Vegetation:

Predominate vegetation types are mixed conifer (52%) and sagebrush-grass (44%). Plant communities represented include alpine, coniferous forest, montane meadow-parkland, sage-grass, and riparian. Lower elevation vegetation includes annual and perennial grasses. Much of the area includes sparse barren rocky ridges interspersed with snow/ice at higher elevations that are unburnable (4%). Since 2000 approximately 168,000 acres have burned mostly within the coniferous forest types, converting to more herbaceous fuels within the FDRA. Coniferous forests are the primary fire concern and are best represented by NFDRS fuel model Y.

- Climate:

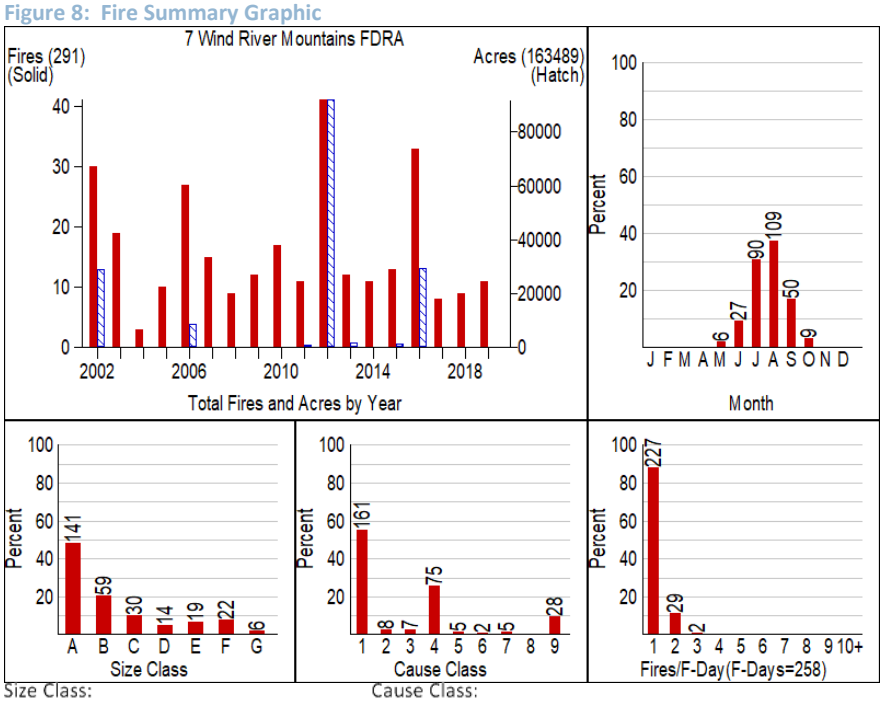
The FDRA receives on average 10-43” of annual precipitation with the least amount received along the eastern portion of the area at the lower elevations. Approximately 33% of the precipitation occurs in the spring, 17% from summer thunderstorms and 51% in the fall and winter as snow. Summer temperatures also vary with elevation; average highs range from 65-74° with average lows from 36-44°.

- Topography:

Elevation ranges from 5,893’ to 13,816’. The highest elevation within the dispatch zone occurs here, Gannett Peak, the highest point in Wyoming. The area consists of steep rocky terrain across most of the area is dissected by steep canyons. Approximately 81% of the terrain is < 40% with predominately eastern aspect.

- FDRA 7 Wind River Mountains – Fire Summary Graph

Figure 8: Fire Summary Graphic



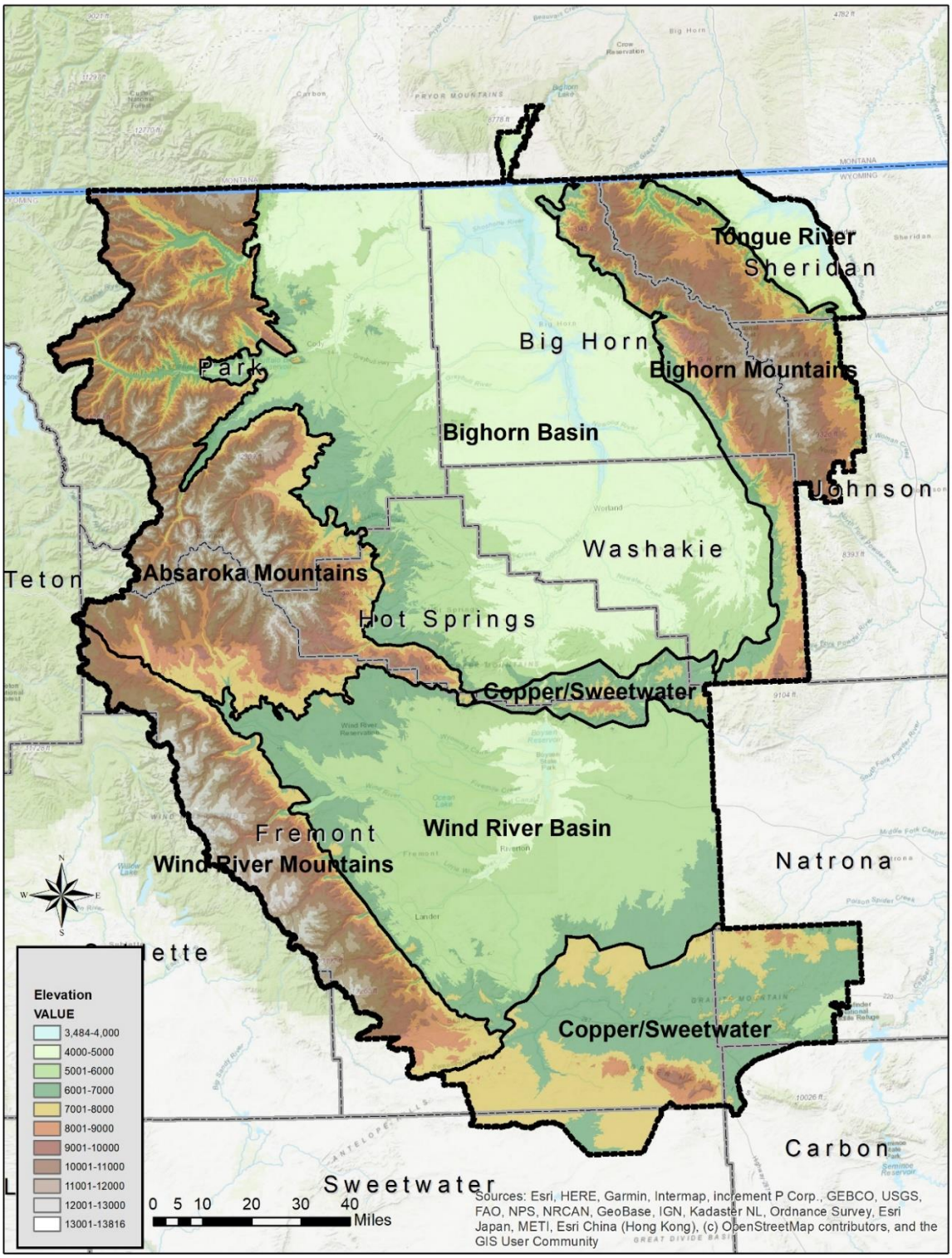
Size Class:

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

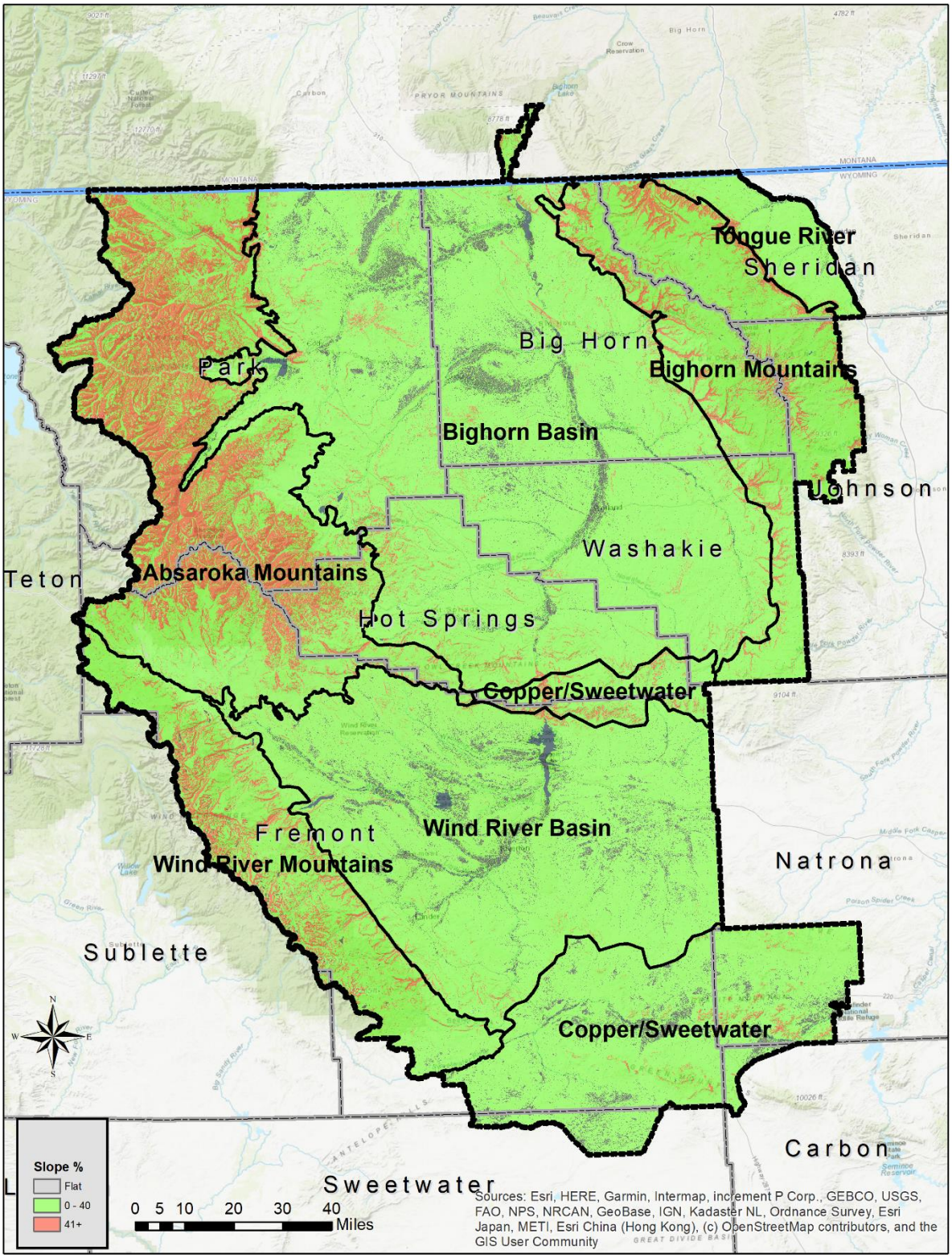
Cause Class:

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

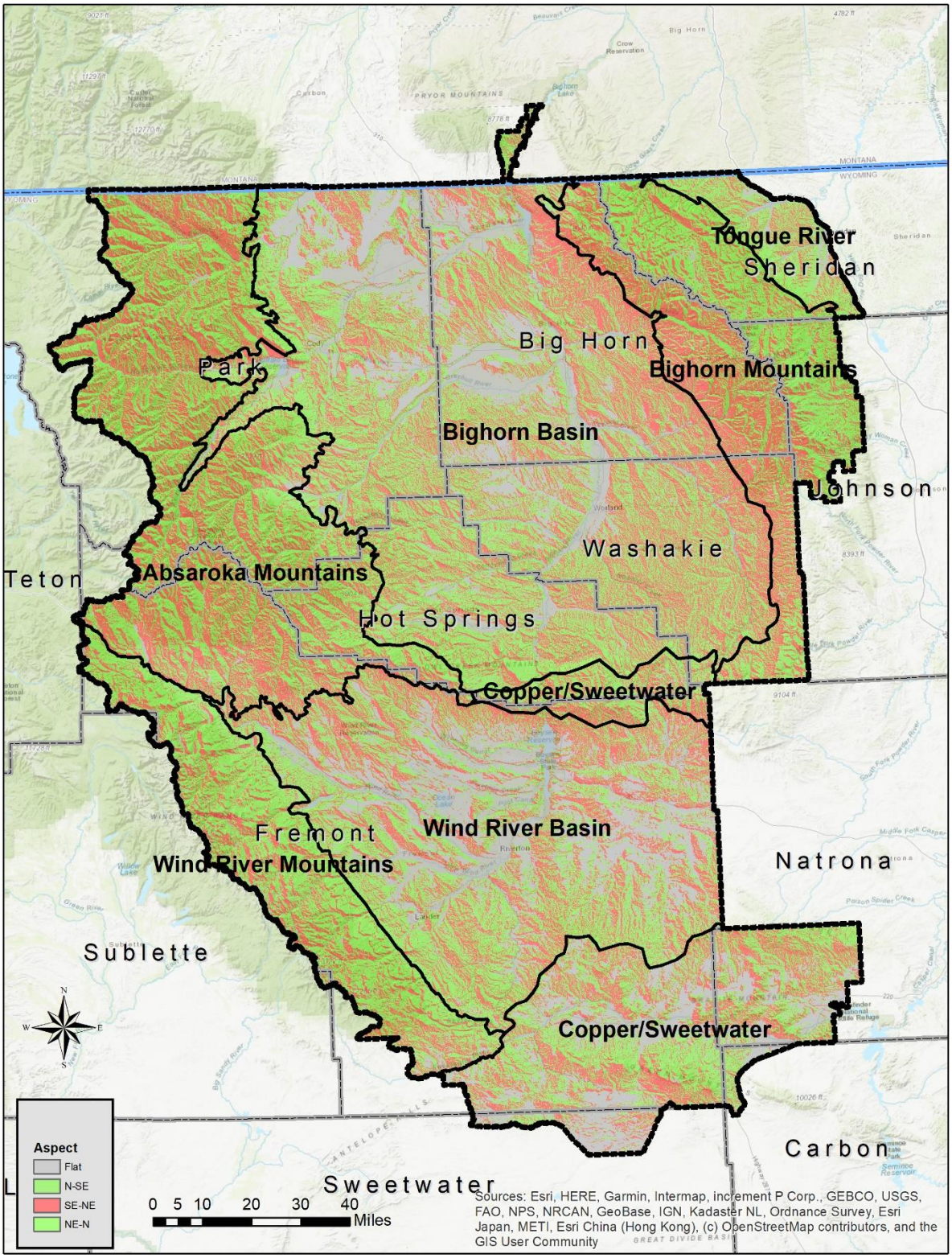
Appendix J **TOPOGRAPHY**



Map 12. Topography (Elevation Map)

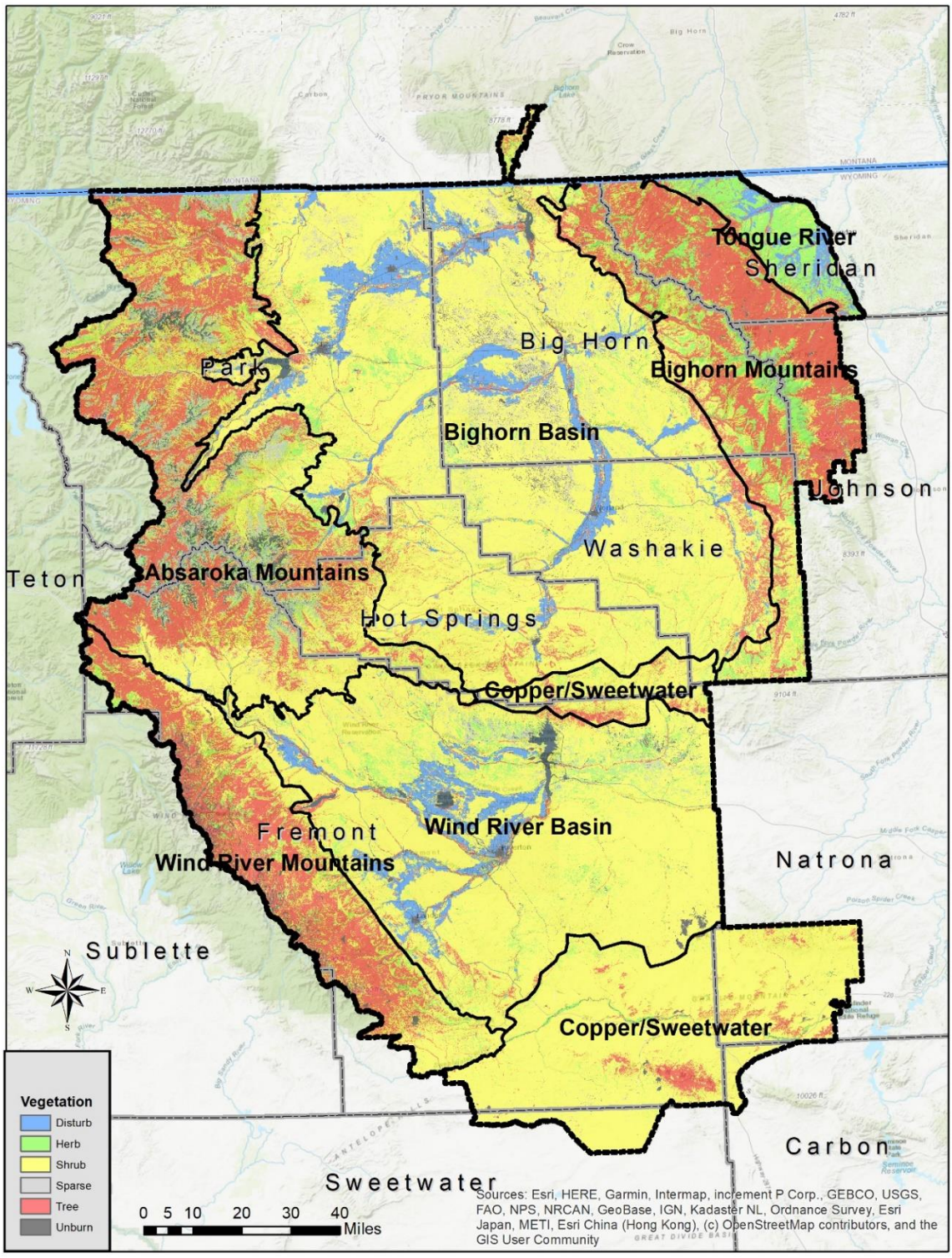


Map 13. Topography (%Slope) Map



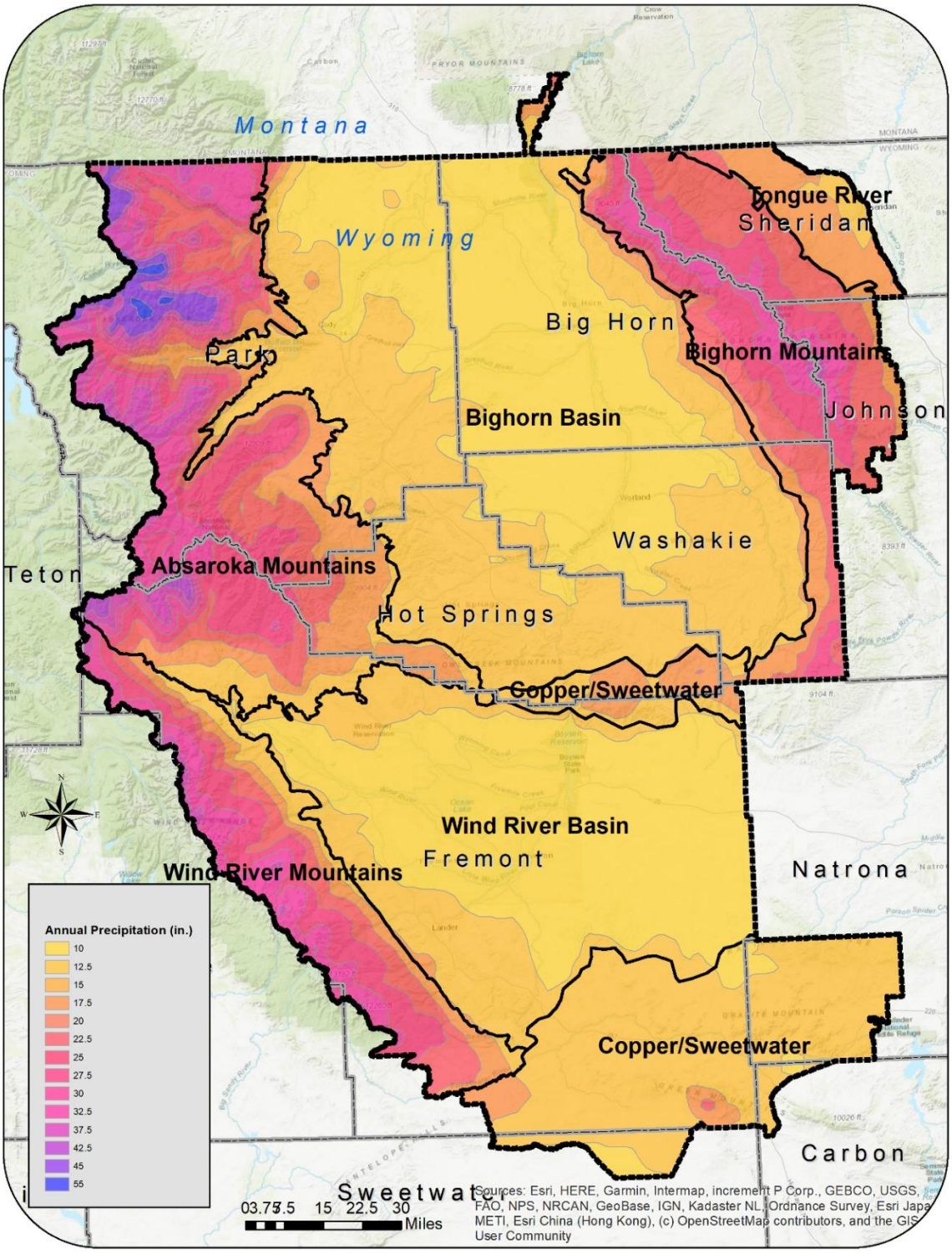
Map 14. Topography (Aspect) Map

Appendix K **VEGETATION**



Map 15. Vegetation Map

Appendix L CLIMATE



Map 16. Climate (Annual Precipitation) Map

Appendix M **FIREFAMILYPLUS ANALYSIS**

Fire Danger Rating Level Analysis

FDRA 1 Absaroka Mountains

Large Fire Size (acres)	10			
Multiple Fire Day (fires/day)	2			
Weather Station Number	480213	480214	480212	481410
Weather Station Name	Crandall	Eagle	Rattlesnake	Elkhorn
NFDRS Fuel Model	Y	Y	Y	Y
Data Years Used in Analysis	2002-2019	2002-2019	2002-2019	2002-2019
Weight	1.00	1.00	1.00	1.00

FDRA 2 Bighorn Basin

Large Fire Size (acres)	200			
Multiple Fire Day (fires/day)	3			
Weather Station Number	480804	480307	245609	480902
Weather Station Name	Grass Creek	Hyatt High	Hillsboro	Pistol Draw
NFDRS Fuel Model	X	X	X	X
Data Years Used in Analysis	2003-2019	2003-2019	2003-2019	2016-2019
Weight	1.00	1.00	1.00	1.00

FDRA 3 Bighorn Mountains

Large Fire Size (acres)	10			
Multiple Fire Day (fires/day)	2			
Weather Station Number	480306	480403	480906	481002
Weather Station Name	Mill Creek	Burgess	Leigh Creek	School House Park
NFDRS Fuel Model	Y	Y	Y	Y
Data Years Used in Analysis	2004-2019	2004-2019	2004-219	2004-219
Weight	1.00	1.00	1.00	1.00

FDRA 4 Copper/Sweetwater

Large Fire Size (acres)	50			
Multiple Fire Day (fires/day)	2			
Weather Station Number	480904	482010	481903	481003
Weather Station Name	Splitrock	Camp Creek	Anderson Ridge	Poker Creek
NFDRS Fuel Model	X	X	X	X
Data Years Used in Analysis	2001-2019	2001-2019	2001-2019	2001-2019
Weight	1.00	1.00	1.00	1.00

FDRA 5 Tongue River

Large Fire Size (acres)	30
Multiple Fire Day (fires/day)	2
Weather Station Number	245105
Weather Station Name	Wolf Mountain
NFDRS Fuel Model	X
Data Years Used in Analysis	2002-2019
Weight	1.00

FDRA 6 Wind River Basin

Large Fire Size (acres)	150		
Multiple Fire Day (fires/day)	2		
Weather Station Number	481412	482010	481504
Weather Station Name	Sharpnose	Camp Creek	Fales Rock
NFDRS Fuel Model	X	X	X
Data Years Used in Analysis	2015-2019	2000-2019	2005-2019
Weight	1.00	1.00	1.00

FDRA 7 Wind River Mountains

Large Fire Size (acres)	10		
Multiple Fire Day (fires/day)	2		
Weather Station Number	481411	481903	481410
Weather Station Name	Wind River	Anderson Ridge	Elkhorn
NFDRS Fuel Model	Y	Y	Y
Data Years Used in Analysis	2002-2019	2002-2019	2002-2019
Weight	1.00	1.00	1.00