

2023

United States Air Force Academy

WILDLAND FIRE MANAGEMENT PLAN



Wildland Fire Management Plan

Signature Page

Approved By:

Signature: _____ **Date:** _____

AMY GLISSON, COL, USAF
10th Air Base Wing Commander

Signature: _____ **Date:** _____

Digitally signed by
SHOEMAKER.BRADLEY.MICHAEL
MICHAEL.1385050522.1385050522
Date: 2023.06.29 07:54:42 -0500

BRADLEY M. SHOEMAKER, GS-14, DAF
Chief, Air Force Wildland Fire Branch, AFCEC/CZOF

This Wildland Fire Management Plan has been prepared in accordance with regulations, standards and procedures of the Air Force Manual 32-7003, section 3P.

The signature above indicates approval of the Plan for Implementation. The plan remains current for 5 years after date of signature of the 10th Air Base Wing Commander. It is a requirement that this plan be annual reviewed from date of 10th Air Base Wing Commander's signature.

The completion of this plan alone does not satisfy the requirements of a Prescribed Fire Plan.

CONTENTS

1. INTRODUCTION.....	1
1.1 PURPOSE OF THIS WFMP.....	1
1.2 GENERAL DISCRIPTION OF THE WFMP AREA	1
1.2.1 General Description of any Geographic Separated Units (GSU)	3
1.2.2 General Description of any GSU Leased by the AF and Used by the Installation.	3
1.3 GENERAL DISCRIPTION OF THE DOD MISSION.....	4
1.3.1 General Discussion of Wildland Fire Impacts on DoD Mission	4
1.3.2 General Discussion of DoD Mission Impacts on Wildland Fire Activities	4
1.4 SIGNIFICANT VALUES TO PROTECT	5
1.4.1 Natural Resources	5
1.4.2 Cultural Resources	5
1.5 WILDLAND FIRE ROLES AND RESPONSIBILTIES	5
1.5.1 Wildland Fire Program Coordinator	6
1.5.2 FES Fire Chief	6
1.5.3 Natural Resource Manager (NRM).....	7
1.5.4 Incident Commander (IC).....	7
1.5.5 Wildland Support Module	8
1.5.6 10th Air Base Wing Commander	9
1.5.7 Air Force Wildland Fire Branch	9
1.6 EFFECTS ON CLIMATE CHANGE ON WILDLAND FIRE MANAGEMENT	10
2. POLICY AND LAND MANAGEMNT PLANNING.....	11
2.1 USAF WILDLAND FIRE POLICY	11
2.2 LAND AND NATURAL RESOURCE MANAGEMENT PLANNING	12
2.2.1 Relationship to the Integrated Natural Resource Plan	12
2.2.2 Other Relevant Plans	14
2.2.3 Environmental Compliance	15
3. WILDLAND FIRE MANAGEMENT	16
3.1 FUEL TREATMENT HISTORY	16
3.1.1 Prescribed Fire History	16
3.1.2 Mechanical/Chemical and /or Biological History.....	18
3.2 WILDLAND FIRE MANAGEMENT PARTNERSHIP.....	18
3.2.1 Internal Partnerships	18

3.2.2 External Partnerships	19
3.3 WILDLAND FIRE MANAGEMENT UNITS (FMU)	19
3.3.1 FMU #1 – USAFA Central Dissected Ridges	21
3.3.2 FMU #2 – USAFA East of Monument Creek	24
3.3.3 FMU #3 – USAFA Eastern Slope.....	25
3.3.4 FMU #4 – USAFA Improved Areas	27
3.3.5 FMU #5 – Farish Recreation Area.....	28
3.3.6 FMU #6 – Bullseye Auxiliary Field	29
3.4 MANAGEMENT OF PLANNED FUELS TREATMENT	30
3.4.1 Fuels Treatment Performance Information/Targets for Fire and Non-fire Fuel Treatments.....	30
3.4.2 Prescribed Fire Planning.....	32
3.4.3 Prescribed Fire Operations.....	32
3.4.4 Prescribed Fire Conversion to Wildfire and Required Reviews	33
3.5 FUELS TREATMENT REPORTING REQUIREMENTS.....	34
3.6 FUELS FUNDING PROCESS.....	34
3.7 REQUESTING ADDITIONAL RESOURCES	34
4. WILDLAND FIRE OPERATION AND MITIGATION.....	34
4.1 WILDFIRE PREVENTION	34
4.1.1 Wildfire History	35
4.1.2 Wildfire Occurrence.....	35
4.1.3 Preventions Activities	37
4.1.4 Public Information, Education and Outreach.....	38
4.2 MANAGEMENT OF WILDFIRES	38
4.2.1 Preparedness and Readiness.....	39
4.2.1.1 Personnel.....	39
4.2.1.2 Equipment.....	40
4.2.1.3 Water Resources	41
4.2.1.4 Fire and Fuelbreak System and Maintenance Plan	41
4.2.2 Training and Qualifications	44
4.2.2.1 FES Training Guidance	44
4.2.3 Wildland Fire Aviation Management	44
4.2.4 Wildfire Detection	45

4.2.5 Wildfire Investigation	45
4.2.6 Wildland Fire Mutual Aid Agreements and/or Cross Boundary Operations	45
4.3 WILDFIRE INCIDENT MANAGEMENT	45
4.3.1 Dispatching Beyond Initial Attack	45
4.3.2 Delegation of Authority of Incident Commander (IC)	46
4.3.3 Wildfire Reporting Requirements	46
4.3.4 Wildfire Suppression Repair.....	47
5. ANNUAL REVIEW AND FUELS MONITORING	49
5.1 ANNUAL WFMP REVIEW AND UPDATES	49
5.1.1 Guidance for WFMP Annual Review.....	49
5.2 TREATMENT EFFECTIVENESS MONITORING.....	50
List of acronyms	51
REFERENCED HYPERLINKS.....	52
Appendix 1: Delegation of Authority	55
Appendix 2: WSM and NR Equipment List.....	56
Appendix 3: Natural Resource Personnel Qualifications	57
Appendix 4: Fuels Monitoring Protocol.....	58
Appendix 5: Personnel Roster Contact List	59
Appendix 6: Annual Review History	62

Figures

Figure 1 – USAFA Area Map

Figure 2 – Map of the WSM Areas of Responsibility

Figure 3 – Prescribed Fire History Map

Figure 4 – Map of FMUs

Figure 5 – USAFA Dip Sites and Helibases

Figure 6 – USAFA Fuelbreak Map

Tables

Table 1 – Areas Covered in the Wildland Fire Management Complex

Table 2 – USAFA Work Completed

Table 3 – Summary of FMUs

Table 4 – Recommended Wildfire Risk Mitigation Strategies (Example)

Table 5 – 5yr Projected Fuel Treatments

Table 6 – WSM Position Table

Table 7 -- USAFA Wildfire History

Table 8 -- Minimum NWCG Qualification Requirements specific to USAFA

Table 9 -- List of Wildland Fire Equipment and Fire Vehicles

1. INTRODUCTION

The intent of this chapter is to introduce the reader to the scope, purpose and area covered by the wildland fire management plan (WFMP). It will describe how fire management strategies and tactics will protect values, implement goals and objectives, and ensure mission readiness.

A wildland fire is any non-structure fire that occurs in vegetation or natural fuels including:

- Wildfires – Unplanned fires including those started by lightning, missions, arson, carelessness, escaped prescribed fire projects, etc.
- Prescribed Fire – Any fire purposely ignited to meet specific land management objectives. This includes debris or pile burning.

Development of WFMPs is required by the 2009 *Guidance for implementation of Wildland Fire Management Policy*. This plan will follow the guidelines set by the Air Force Manual 32-7003 (AFMAN 32-7003) and will represent wildland fire activities within the installations INRMP.

1.1 PURPOSE OF THIS WFMP

The WFMP is a supporting document for implementation of the Integrated Natural Resources Management Plan (INRMP) as mandated by AFMAN 32-7003 and in accordance with the [Sikes Act, 16 USC § 670 et seq.](#) The INRMP is the principal document for managing natural resources on a military installation, defines natural resources management goals and objectives that are consistent with the military mission, and ensures no net loss in the capability of installation lands to support the military mission. The INRMP drives the WFMP to reflect the supporting coordinated approach to wildfire response and risk mitigation that includes Fire and Emergency Services (FES), installation natural resources personnel and the Air Force Wildland Fire Branch (AFWFB). This plan addresses the specific fire-related supporting goals and objectives identified in the INRMP, recommended goals and objectives of the WFMP as well as existing SOPs for wildfire response. Implementation of this WFMP will help to develop a coordinated effort to manage wildland fire that supports the INRMP and mission support objectives.

1.2 GENERAL DESCRIPTION OF THE WFMP AREA

The 18,455-acre United States Air Force Academy (USAFA) is situated along the Rocky Mountain Front Range about 6 miles north of downtown Colorado Springs and 60 miles south of Denver in El Paso County, Colorado. Additional lands under the authority of the USAFA include the 655-acre Farish Recreation Area, 4.5 miles northeast of Woodland Park, Colorado, and the 128-acre Bullseye Auxiliary Airfield (Bullseye), 8 miles east-southeast of Ellicott, Colorado. The base supports about 4000 resident cadets, 2000 resident active-duty military, 3000 spouses and children, and over 1000 commuting civilians.

The western edge of the USAFA abuts the U.S. Forest Service (USFS) Pike and San Isabel National Forests. The expanding city of Colorado Springs lies east and south of the USAFA. The towns of Monument and Palmer Lake and unincorporated land in El Paso County lie to the north.

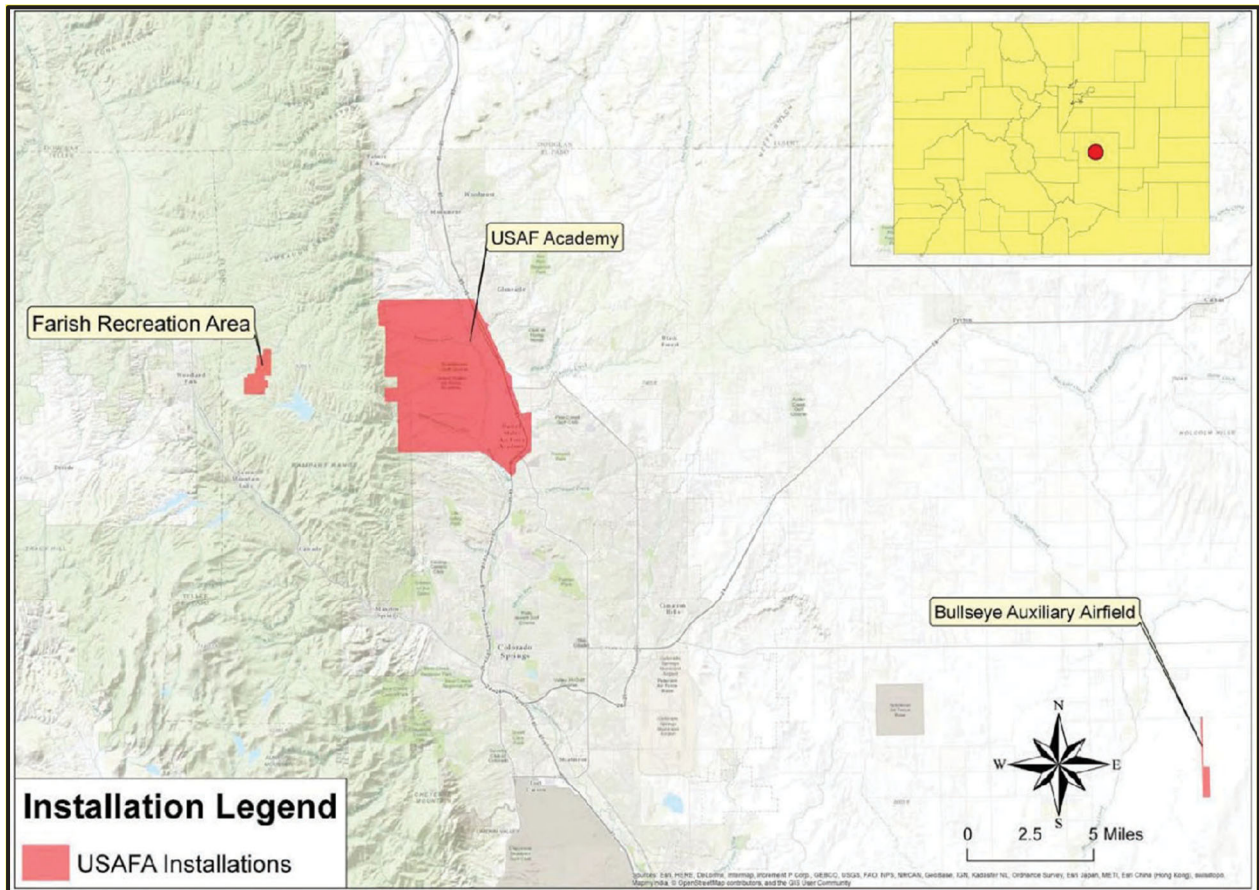
Farish is adjacent to Pike San Isabel National Forest and private lands and has a 10-acre private inholding. Bullseye is bordered by private lands to the north and State of Colorado lands on the south, east, and west sides.

The USAFA is accessible by North Gate Blvd and South Gate Blvd and via exit from Interstate 25 and by air to the USAFA’s airfield. This GSU is further subdivided into 4 FMUs as described in Chapter 3. Figure 1 shows a vicinity map of USAFA.

Table 1: Areas Covered in the Wildland Fire Management Complex

Areas Covered within the WFMP	Total Acres (Treatable Acres)
USAFA Campus	18,455 (18,123)
Bullseye Auxiliary Field	128 (126)
Farish Recreation Area	655 (653)

Figure 1: USAFA Area Map



1.2.1 General Description of any Geographic Separated Units (GSU)

Farish Recreation Area contains 655 acres and is located 4.5 aerial miles northeast of Woodland Park and 15 miles north of Pikes Peak in El Paso County in the Rampart Range. Farish is accessible from the main USAFA campus by U.S. Highway 24 and Rampart Range Road and is also accessible by foot or horseback from Pike National Forest Trail 721 through Stanley Canyon.

Farish is a popular recreation area for DoD employees in the summer months. Farish has been used as an off-base recreation area since its purchase and donation to the Air Force in 1959. Originally consisting of a 60-acre parcel with two lodges, Farish's mission is to provide an off-base, high quality, natural, mountain outdoor recreation setting for the DoD community. The facility is named in honor of First Lieutenant William S. Farish, who lost his life in the Army Air Corps in World War II. Additional land was gifted in 1963, 1967, and 1969, which brought Farish to its current size. Grace Lake, Leo Lake, and Sapphire Lake are artificial lakes built in the 1930s, 1950s, and 1960s, respectively. Mining and agriculture uses were previously present on the southern portion of Farish. Farish currently contains hiking trails, fishing lakes, camping, skiing, paddleboats, mountain biking, and more. Facilities include the two original lodges, a bathhouse, and multiple picnic pavilions, campsites, cottages, and cabins. Other notable structures include the Farish Observatory, Grace Lake Lodging, Sapphire Campground, and the Conference Center.

1.2.2 General Description of any GSU Leased by the AF and Used by the Installation.

The USAFA acquired the use of the Bullseye Auxiliary Airfield in 1988 through a long-term lease from the State of Colorado to accommodate increases in T-41 pilot training, glider activity, and other types of aircraft operations that exceeded the capacity of the existing airfield while saturating the available airspace. Considerations of safety, operational efficiency, and the USAFA mission to better prepare cadets for more advanced pilot training established the need for a new auxiliary airfield. Bullseye occupies a 128-acre site (one-fifth of a section) that accommodates a 3500-foot by 75-foot asphalt paved runway and associated support facilities. A 12-foot-wide access road approximately 3 miles long provides access from the nearest public road. Bullseye also contains a 1000-foot clear zone, a 30-foot-wide parallel paved taxiway with connections at both ends and at the midpoint of the runway, and a 130-foot by 235-foot paved aircraft parking apron with tie downs for four parked T-41 aircraft. Bullseye is surrounded by rangeland composed of agricultural land, shortgrass prairie, and mixed grass prairie. State Land Board (SLB) owns the land around Bullseye and most is designated as State Stewardship Trust. This designation conveys additional resource "protection" above normal SLB lands. Fire protection responsibility is covered by the El Paso County Memorandum of Understanding (MOU) (Appendix 2.2.4). The terrain is flat and covered by grassland vegetation represented by Fuel Model (FM) 1. Elevation is approximately 6,000 feet. The land is maintained by mowing and has one building on the west side adjacent to the airstrip.

The primary purpose of the Bullseye Unit is to provide an auxiliary airport for training missions. The direction for Natural Resources (NR) Management is to support the airfield's bird air strike hazard (BASH) objectives.

1.3 GENERAL DISCRPTION OF THE DOD MISSION

The USAFA is under the command of the superintendent of the Air Force but its duties fall under the command of the 10th Air Base Wing (ABW) Commander, which is comprised of the 10th Medical Group and the 10th Mission Support Group and seven staff agencies. Together the 10th ABW provides all support activities and services for the operation of the USAFA. The 306th Flying Training Group is stationed on the USAFA and provides powered and unpowered flight training.

The primary mission of the USAFA is to provide instruction and experience to all cadets so they graduate with the knowledge and character essential to become future leaders of the USAF. The open space and diversity of natural resources within the USAFA provide a realistic training environment and inspirational setting for the education and training of cadets.

The primary purpose of the Farish Unit is to provide an off-base, high quality natural mountain recreational setting for DoD personnel, compatible with the natural environment for the health, morale, and cohesion of the base community. The direction for NR Management at Farish is to sustain the natural environment is over the long term for the military mission and recreation in accordance with environmental laws.

1.3.1 General Discussion of Wildland Fire Impacts on DoD Mission

Wildfires on USAFA properties can reduce readiness of the cadets by impacting training schedules and infrastructure, while also threatening life and property. The principal impacts of wildfires on USAFA properties are the potential for damage to property off the installation from fires originating on the installation, the potential for damage to infrastructure on the installation from a wildfire originating on the installation or spreading onto the installation, and the impact of smoke on neighboring roadways and properties and the nearby Colorado Springs metropolitan area. Smoke management is always a concern regarding airfield activity, transportation routes, and the installation residential area.

High intensity fires have the potential to damage equipment and infrastructure and release large amounts of smoke into the atmosphere. Smoke production may potentially disrupt training operations and cause health impairments in sensitive populations, and lasting damage to the visual landscape and ecosystem functions that are critical to the USAFA's identity and mission. Further, being positioned on the Front Range, the USAFA and surrounding areas have a history of catastrophic and deadly wildfire occurrence.

1.3.2 General Discussion of DoD Mission Impacts on Wildland Fire Activities

Past and potential mission impacts to wildland fire activities are broken into two main categories: mission related wildfire ignitions and security related restrictions to airspace and training areas. A large contributor to human caused wildfires on the USAFA is military training, primarily within the Jacks Valley Area.

Security restrictions related to accomplishing military mission may increase response time from off-base resources, may also potentially restrict airspace during wildland fire activities, or make fighting fire dangerous in areas near or adjacent to where explosives or munitions are stored for

training exercises. The presence of explosives or munitions storage is limited to the Jacks Valley Area, whereas the entire USAFA is host to airspace which may conflict with wildland fire activities. No areas of Unexploded Ordnances are located on the USAFA.

1.4 SIGNIFICANT VALUES TO PROTECT

The USAFA was comprehensively master planned. Boundaries of the USAFA were based on the need for airspace, land-based military training, room for expansion, and viewshed protection. The original master plan clustered development in separate functional-use areas and devoted sizable acreage, nearly 70 percent of the base, to open space. The master plan regarded open space as integral to the overall design concept of the USAFA, with uses intended to preserve views, restrict development in environmentally sensitive areas, separate and buffer sub-areas and functions, and provide recreation. The USAFA's natural setting provides an ideal outdoor classroom, including rugged areas for survival training, large natural areas for field training, and many opportunities for scientific study. As such, the natural setting and viewshed of the USAFA represents a significant value to protect. The natural setting provides the backdrop for the buildings of the USAFA that comprises the learning environment and several outdoor training areas (mostly located in Jack's Valley). The area would take considerable time to recover and regrow following a catastrophic wildfire.

There are numerous structures and improvements on the USAFA and Farish that provide for housing, classroom, and operational support. These may be at risk from wildfire due to their location and proximity to wildland fuels. These structures and improvements include telecommunications and radar facilities, utility lines, railroad tracks, and developed infrastructure (buildings and homes).

Adjacent communities of Colorado Springs and Monument also have residential and commercial properties as well as infrastructure for municipal water supply that are significant values to protect.

1.4.1 Natural Resources

Habitat for the threatened Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) is present on the USAFA. Wildfire activities during seasons when the mouse is active could take individuals or alter habitat.

1.4.2 Cultural Resources

Significant cultural sites at risk include several culturally modified trees, trees modified by American Indian tribes prior to Euro-American settlement and traditional cultural landscapes surrounding Cathedral Rock. Historic cabins and other structures are also present. Other cultural sites are present but are mostly at risk from suppression related activities and their locations will be available to fire managers during suppression activities.

1.5 WILDLAND FIRE ROLES AND RESPONSIBILITIES

A personnel roster can be found in [Appendix 5](#).

1.5.1 Wildland Fire Program Coordinator

A Delegation of Authority (DoA) is included in [Appendix 1](#). The DoA becomes current with the approval and signature of this WFMP. The WFPC for this installation is the installation's Forester.

The WFPC will:

- Serve as the primary point of contact between the installation and AFCEC/CZOF for all matters concerning wildland fire.
- Initiate and ensure appropriate installation coordination and timely completion of the WFMP annual review.
- Coordinate with the AFCEC/CZOF Wildland Support Module (WSM) lead to identify National Wildfire Coordinating Group (NWCG) training requirements needed to implement the installation WFMP.
- Submit requests for Incident Qualification Cards to AFCEC/CZOF for installation personnel not employed by FES as specified in the installation WFMP.
- Coordinate with the installation natural resources manager to assess the need for an Emergency Stabilization (ES) Plan and/or a Burned Area Emergency Response (BAER) Plan after a wildfire incident.
- Acquire required approvals of Agency Administrator Ignition Authorization and Prescribed Burn Go/No Go Checklist prior to initiation of a prescribed burn.
- Report significant wildfire incidents on the installation as soon as practicable to the Regional Fire Management Officer (RFMO).

1.5.2 FES Fire Chief

- Serves as the IC during wildfire incidents and may delegate IC authority to others based on the complexity of the incident.
- Prepares for both initial and extended wildfire suppression operations per National Fire Protection Association (NFPA) Standard 1710, and in accordance with DoDI 6055.6.
- Responsible for fire prevention and minimizing adverse consequences within the Wildland Urban Interface (WUI) as per AFI 32-2001.
- Initiates requests for AFCEC/CZOF assistance during a wildfire.
- Develops Mutual Assistance Agreements with regional and local fire departments and land management agencies for wildfire suppression assistance and initiates mutual aid requests.

- Submits requests to the AFCEC/CZOF training manager for NWCG Incident Qualification Cards for qualified FES personnel.

1.5.3 Natural Resource Manager (NRM)

The NRM should be involved with development of the WFMP to ensure that all planned actions in the WFMP that could affect natural resources are in line with, and directly supportive of the INRMP. As part of this coordination, the NRM is responsible to ensure that all planned actions associated with the WFMP are covered under NEPA.

The Cultural Resource Manager should also be involved in the review of the WFMP.

1.5.4 Incident Commander (IC)

A qualified IC will supervise all wildfires occurring on an Air Force installation and staffed with Air Force employees. If a qualified IC is not available, one will be ordered through the local dispatch center.

The IC is a single individual responsible to the installation for all incident activities, including the development of incident management strategies and tactics, and the ordering, deployment, and release of resources. IC responsibilities include:

- Providing a size-up to dispatch as soon as possible upon arrival on scene. A size-up checklist is in the Interagency Incident Response Pocket Guide (IRPG).
- Completing and filing an incident report with the installation dispatch center.
- Using guidance in this WFMP. If from a cooperating agency, secure a DoA to implement the selected suppression response and manage an organization to implement effective strategies and tactics. Minimize suppression impacts where possible without reducing the effectiveness of the actions.
- Determining resource needs and ordering as needed through local dispatch.
- Ensuring all resources assigned and those incoming receive a briefing. Document these briefings. Refer to the Briefing Checklist in the IRPG.
- Continually re-assessing incident complexity using the checklist in the IRPG. When there is a need for a more qualified IC, inform dispatch and delegated unit administrator and place the order for a higher-level IC.
- Utilizing AFMAN, NWCG Fireline Handbook and AFWFB for more detailed description of IC responsibilities. Depending on incident complexity, additional responsibilities for the IC may apply.
- Ensuring all resources, including mutual aid resources, report to the IC (in person or by radio) to receive an incident briefing prior to tactical assignment deployment.

- Notifying NR of suppression activities.
- Assigning investigative duties for all wildfires to determine fire cause. Document findings on ICS-214, determine if negligence or criminal intent were factors. If the IC suspects a fire cause is suspicious, order a qualified wildland fire investigator. Protect the point of origin for investigation purposes.

1.5.5 Wildland Support Module

The supporting WSM is located at Cheyenne Mountain Space Force Station in Colorado Springs. The FES Chief can request the WSM for wildfire suppression if available. Response time is <1hr. Figure 2 shows the WSMs Area of Responsibility.

- Reduce wildfire threats to Air Force mission assets and personnel through fuel reduction treatments.
- Provide guidance for execution of wildfire suppression, mitigation, prescribed fire, and hazardous fuel reduction on Air Force installations.
- Develop and maintain recommended burn plan templates.
- Provide strategic, logistical, and “boots on the ground” wildland fire support to ensure military preparedness.
- Train Air Force personnel to nationally recognized NWCG standards to prevent injury and loss of life and build response capability.
- Collect, analyze, and communicate key wildland fire data to demonstrate ecological benefits and risk to mission.

Figure 2: AFWFB Area of Responsibilities Map



1.5.6 10th Air Base Wing Commander

The 10th Air Base Wing Commander or his designee is responsible for appointing the Wildland Fire Program Coordinator and for reviewing and approving the WFMP.

1.5.7 Air Force Wildland Fire Branch

- Provides oversight, technical direction, and guidance for wildland fire management planning and implementation for the Air Force. Advocates for resources required to implement the Air Force wildland fire program.
- Develops plans and programs to facilitate Air Force wildland fire policy execution.
- Determines the need for an installation WFMP as a component plan of the INRMP, provides guidance for WFMP content, and develops WFMP in coordination with the installation.
- Establishes, with AFCEC/CXF inputs, RFMO positions to implement installation WFMPs and support wildland fire operations in their respective regions.

- Establishes strategically located WSMs at installations and ranges with the highest wildfire risk and most frequent wildfire activity. WSMs shall operate under the 10th Air Base Wing Commander's control. The RFMO and WSM are to support wildland fire operations in their respective regions.
- Manages a system for tracking and reporting of wildfires, prescribed fires, and mechanical/chemical fuel reduction activities that occur on lands under Air Force jurisdiction.
- Administers Wildland Fire training, qualifications management and Incident Qualification and Certification System (IQCS) for the Air Force.
- Manages AFCEC/CZOF wildland fire vehicle and equipment assets. Reviews and advocates for installation-level requirements for wildland vehicles and equipment.
- Provides and manages contracts, interagency agreements, and cooperative agreements with AFCEC/CXF for wildland fire program assistance on behalf of, and for use by, Air Force installations.
- The AFWFB Training Program Manager serves as the Air Force agency representative on the interagency IQCS Change Management Board.

1.6 EFFECTS ON CLIMATE CHANGE ON WILDLAND FIRE MANAGEMENT

The Colorado Climate Change Report 2023 by Colorado Water Conservation Board, Department of Natural Resources documents historic climate trends and predictions for Colorado's climate. A review of weather data shows that over the past 30 years the statewide annual temperatures will increase 2.5°F to 5°F by 2050. Daily minimum temperatures have warmed more than daily maximum temperatures; however, temperatures in all seasons have increased. No long-term trends in annual precipitation have been detected in Colorado, however since 2000, snow-water equivalent has been below-average in all of Colorado's river basins. Snowmelt and peak runoff have shifted 1-4 weeks sooner over the past 30 years (Lukas et al 2014).

The effects of this increase in temperature, reduction in snow-water equivalent in snowpack, and earlier snowmelt has had profound impacts on both biotic life and wildland fire management. This is evident in the increased and epidemic levels of bark beetles (*Dendroctonus spp.* and *Ips spp.*) affecting Colorado's Front Range and the USAFA, and the reduction in the trees' ability to respond to bark beetle attacks. The widespread mortality has been controlled on the USAFA with an active detection and sanitation program, locating infected trees and removing the brood material before additional attacks can occur. Western Spruce Budworm (*Choristoneura freemani*) is also defoliating stands at the USAFA and causing tree mortality. There is evidence that climate change may increase the outbreak patterns (Lukas et al 2014).

The wildfire season in Colorado is generally considered to be between April and October. On the adjacent USFS Pikes Peak Ranger District, 90 percent of the fires occur during this time. The USAFA however, has fires any time throughout the year depending on fuel moisture and

ignition source. Although numbers of visitors and lightning ignitions peak in the summer, the USAFA has military and visitor activity throughout the year. In recent history, all fires on the USAFA that occur outside what is considered the normal fire season have been caused by military training pyrotechnic devices or other human factors such as cigarettes.

With the predicted increase in summer temperatures and earlier winter snowmelt, it is likely that the wildfire season will not only be extended, but the fire effects will likely increase as fuels are more cured earlier in the season. Vegetation may shift to a more shrub/range category as increasing temps and altered precipitation causes mass mortality in spruce, fir and Ponderosa Pine.

2. POLICY AND LAND MANAGEMNT PLANNING

2.1 USAF WILDLAND FIRE POLICY

The following governing policies establish the accepted professional standards for the Air Force wildland fire program and are the basis for training and certification by the Air Force Civil Engineer Center Environmental Management Directorate, Operations Division, Wildland Fire Branch (AFCEC/CZOF) and Air Force Civil Engineer Center, Readiness Directorate, Fire Emergency Services (AFCEC/CXF).

[AFMAN 32-7003 Section 3P *Environmental Conservation* 20 Apr 20](#)

[AFI 32-2001 Fire Emergency Services Program \(wbdg.org\)](#)

[2001 FEDERAL WILDLAND FIRE MANAGEMENT POLICY \(doi.gov\)](#) - The primary wildland fire policy document for federal agencies, and establishes the guiding principles, policies and implementation actions for wildland fire management on DoD lands.

[Interagency Standards for Fire and Fire Aviation Operations \(nifc.gov\)](#)

[The National Wildfire Coordinating Group \(NWCG\), *Wildland Fire Qualification Subsystem Guide* \(Publication Management System \(PMS\) 310-1/ National Fire Equipment System \(NFES\) 1414\)](#)

[Interagency Prescribed Fire Planning and Implementation Procedures Guide PMS 484](#)

[Federal Wildland Fire Qualification Supplement](#)

[National Fire Protection Association \(NFPA\) Standard 295, *Standard for Wildfire Control*](#)

[NFPA Standard 1051, *Standard for Wildland Firefighter Professional Qualifications*](#)

[NFPA Standard 1143, *Standard for Wildland Fire Management*](#)

[NFPA Standard 1561, *Standard on Emergency Services Incident Management System and Command Safety*](#)

[NFPA Standard 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments*](#)

2.2 LAND AND NATURAL RESOURCE MANAGEMENT PLANNING

2.2.1 Relationship to the Integrated Natural Resource Plan

The USAFA INRMP approved 12 June, 2023 is the primary document directing activities on the installation. This document includes objectives and strategies to support the installation management goals. The primary goal with respect to Fire Management at the USAFA is to minimize the risk of catastrophic wildfire on USAFA and Farish and increase use of prescribed fire as a management tool. The following objectives and strategies relevant to fire and fuels management to achieve this primary goal are directly from the INRMP and are stated as follows:

FIRE MANAGEMENT GOAL I: Revise and implement the USAFA and Farish Wildland Fire Management Plan.

SUPPORTING OBJECTIVES:

- I.A. Coordinate with the AFWFB to revise the WFMP.
- I.B. Implement the WFMP, and review progress annually with the Sikes Act Cooperators and the WFC.

FIRE MANAGEMENT GOAL II: Maintain currency of required documents enabling the USFWS-staffed Natural Resources office to participate in wildland fire operations.

SUPPORTING OBJECTIVES:

- II.A. Update the Wildland Fire MOU between the USAFA and United States Fish and Wildlife Service (USFWS) upon expiration.
- II.B. Annually update the Wildland Fire Management Annual Operating Plan (AOP).

FIRE MANAGEMENT GOAL III: Decrease risk of fast-spreading wildfire by creating and enhancing strategic fuelbreaks.

SUPPORTING OBJECTIVES:

- III.A. Clear 70 acres annually of Gambel oak and other brush for fuelbreaks to break up continuity of dense brushy fuels. Masticate brush or pile for subsequent prescribed burning.
- III.B. Coordinate with the AFWFB to burn piles created from brush clearing.
- III.C. Limb conifers retained within shaded fuelbreak areas to a height of approximately six feet. An estimated 300 trees will be limbed annually.

FIRE MANAGEMENT GOAL IV: Enhance defensible space around buildings and other infrastructure, to increase the ability to protect these resources in the event of a wildfire.

SUPPORTING OBJECTIVES:

IV.A. Clear brush and lower tree limbs and rake woody and leafy debris from close proximity to five sites annually. A site may consist of a building, utility site, etc. Clearing distance will depend on fuel type, density and terrain.

IV.B. Facilitate fuel hazard assessments of homes within privatized housing areas, using USAFA firefighters to complete surveys.

IV.C. Determine sources for funding fuel hazard reduction projects within privatized housing areas.

FIRE MANAGEMENT GOAL V: Increase the use of prescribed fire for fuels management and habitat improvement.

SUPPORTING OBJECTIVES:

V.A. Secure a smoke permit and perform a prescribed broadcast burn on the one-acre Academy Drive site to enhance the rare aster Plains Ironweed (*Vernonia marginata*). Install monitoring plots to evaluate results of this burn. Assess annually at the end of the growing season. Update the existing three-year prescribed fire burn plan for the Plains Ironweed site upon expiration. Incorporate into annual INRMP update.

V.B. Develop a prescribed burn plan to enhance meadow habitat in a 16-acre area south of the Cadet area. Install monitoring plots to evaluate results of this burn and collect baseline vegetation data. Assess annually thereafter. Secure a smoke permit and perform a prescribed broadcast burn on this 16-acre site.

V.C. Develop a prescribed burn plan to burn slash piles resulting from aspen harvest units at Farish to reduce wildfire hazard. Secure a smoke permit and perform a winter prescribed burn on this site.

V.D. Assess the need for and benefits of additional prescribed fire, and update INRMP accordingly.

FIRE MANAGEMENT GOAL VI: Document all fuel mitigation and prescribed burn activities photographically and spatially. This will monitor long-term effectiveness of management activities, and accurately record specific project locations.

SUPPORTING OBJECTIVES:

VI.A. Take pre-treatment photos of all projects, ranging across a variety of conditions and representing a density of at least one photo per three acres. GPS and annotate photo points. Take post-treatment photos immediately following thinning operation; after the next growing season, and at five years after treatment. Establish digital catalog for storage.

VI.B. GPS all fuels treatment project boundaries. Include contractor name (if applicable) and project dates (to include month and year) in attribute data. Add to applicable GeoBase layers.

FIRE MANAGEMENT GOAL VII: Provide education on the need for fuel hazard mitigation, including defensible space concepts, fire prevention and wildfire preparation.

SUPPORTING OBJECTIVES:

VII.A. Play an active role in the Pikes Peak Wildfire Prevention Partners (PPWPP). Attend and/or host monthly meetings and assist with fuel hazard reduction demonstration projects.

VII.B. Help plan and host the annual PPWPP “Living with Wildfire” community education conference.

VII.C. Host an educational booth at the annual USAFA Fire Open House in August.

2.2.2 Other Relevant Plans

Consider additional documents in place at USAFA that relate to the area covered by this WFMP:

- INRMP
- Integrated Cultural Resources Management Plan (ICRMP)
- BASH Plan
- Integrated Pest Management Plan
- Air Installation Compatible Use Zone Studies
- Readiness and Environmental Protection Integration
- Facility Excellence Plan
- Golf Environmental Management Plan
- Integrated Noxious Weed Management Plan
- Trails Management Plan and Maintenance Standards
- Conservation and Management Plan for Preble’s Meadow Jumping Mouse on USAFA
- Forest Management Plan
- Youth Groups Camp Management Plan
- HAZMAT Plan
- Infrastructure Plan
- Stormwater Pollution Prevention Plan
- Water Quality Monitoring Plan

2.2.3 Environmental Compliance

Environmental compliance for planned wildland fire-related actions on Air Force managed lands, including fire break establishment for prescribed fire, fire break maintenance and rehabilitation, prescribed burning and mechanical fuel reduction, will be covered by NEPA. The NEPA process begins with the Air Force Form 813, Request for Environmental Impact Analysis, assures that all potential environmental impacts are being considered and evaluated before a decision to implement the proposed action.

The following information must be included in the Air Force Form 813:

- All regulations relating to fuels treatments, to include both prescribed fire and non-fire treatments as needed.
- Any permit requirements, community notifications, and/or seasonal restrictions for fuel treatments in compliance with all regulations.
- Air quality attainment status for the region, regulatory restrictions, and regulatory agencies with jurisdictional authority for Clean Air Act compliance.
- Best management practices and avoidance measures that would be incorporated into the fuels management effort to protect sensitive resources.
- Reference the INRMP and ICRMP for any sensitive sites or species that could potentially be impacted by the proposed action.

A well-executed NEPA process assures compliance with the following additional laws:

- Endangered Species Act of 1973 (ESA),
- National Historic Preservation Act of 1966,
- Archeological Resources Protection Act of 1979,
- Clean Water Act of 1963,
- Clean Air Act of 1972,
- Golden and Bald Eagle Protection Act,
- Migratory Bird Treaty Act 1912

Consult with the Installation NEPA Coordinator for more details.

All prescribed fires, mechanical fuel treatments and chemical fuel treatments must comply with NEPA. In consultation with the Base Staff Judge Advocate, the Installation NEPA Coordinator will determine which of the three levels of NEPA analyses are appropriate for the proposed action defined in the WFMP as outlined in the Air Force Form 813:

(a) A categorical exclusion (CATEX) - 32 Code of Federal Regulation (CFR) 989.13 wherein the proposed action meets one of the defined categories of actions identified in Appendix B of 32 CFR 989. By reference, this section incorporates the text of the Interagency Standards for Fire and Aviation Operations related to Smoke Management and Air Quality and will follow recommendations of the latest edition of the NWCG Smoke Management Guide for Prescribed and Wildland Fire.

(b) An Environmental Assessment (EA) – 32 CFR 989.14, wherein the proposed action is one not usually requiring an Environmental Impact Statement (EIS) but is not categorically excluded and is likely to support a Finding of No Significant Impact (FONSI).

(c) An EIS – 32 CFR 989.16, wherein the proposed action cannot support a FONSI or is defined by the Air Force as posing potential significant degradation of the environment or threat or hazard to public health or safety.

Regardless of the level of analysis required, all NEPA documentation should be included the project file and managed by the Installation’s Natural Resource element as part of the Administrative Record.

Individual prescribed burn plans will specify conditions required for burning that will minimize impacts to air quality from prescribed fire, including compliance with the requirements of State and local air quality regulatory agencies.

Wildfires are unplanned events and would be classified as an emergency response situation. Installation and AFWFB staff are required to comply with the latest emergency NEPA regulations. Additionally, emergency ESA consultation should be conducted during or immediately following a wildfire if the wildfire or suppression actions could potentially impact a federally listed species. Minimizing potential smoke incursions into non-attainment areas will require aggressive suppression actions during periods of air quality alerts.

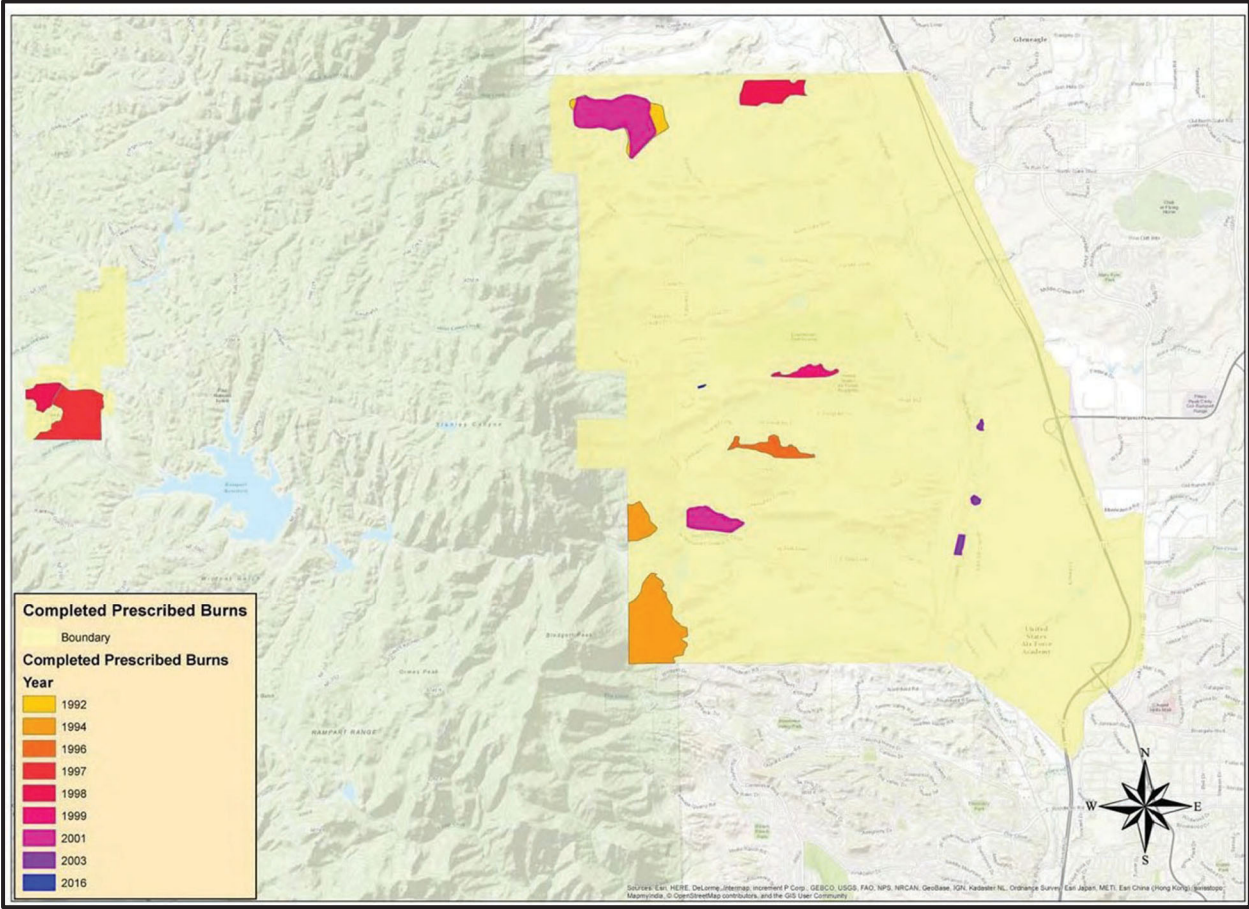
3. WILDLAND FIRE MANAGEMENT

3.1 FUEL TREATMENT HISTORY

3.1.1 Prescribed Fire History

Since 2017, there has been one 27-acre prescribed fire conducted on the installation. Figure 3 shows a complete history of prescribed fire activities on the USAFA.

Figure 3: Prescribed Fire History Map



3.1.2 Mechanical/Chemical and /or Biological History

Table 2: Work Completed

Fiscal Year	2017	2018	2019	2020	2021	2022
Description	Amount	Amount	Amount	Amount	Amount	Amount
<i>Trees Removed and Mitigated in Field</i>	519	472	203	264	329	545
<i>Trees Pruned</i>	1,126	901	2,164	573	310	284
<i>Forest Health Field Surveys (plot)</i>	2,230 (acre)	2,600 (acre)	777	1,422	829	510
<i>Forest Stand Exams (plot)</i>	75	300	73	153	300	44
<i>Timber Marked (acre)</i>	-	168	137	48	15	41
<i>Trees Removed and Brought to Woodlot</i>	388	301	219	206	275	364
<i>Overstory Thinning (acre)</i>	72	60	33	35	68	35
<i>Defensible Space Treatments (structure)</i>	13	9	22	1	1	1
<i>Wildfire Rehab (acre)</i>	-	-	32	37	12	5
<i>Fuels Mastication Contractors (acre)</i>	-	-	28	70	-	-
<i>Fuels Mastication WSM (acre)</i>	-	121	-	37	43	102
<i>Prescribed Fire (acre)</i>	-	-	-	-	27	-
<i>Firewood Sold (ton)</i>	66	57	62	63	107	136

3.2 WILDLAND FIRE MANAGEMENT PARTNERSHIP

The USAFA maintains and utilizes internal and external partnerships for suppression and response to wildfires, as well as the implementation of fuels reduction activities.

3.2.1 Internal Partnerships

The Wildland Fire Management AOP is reviewed and revised annually. This further defines

details and logistics of the fire-related working relationship between these two agencies. All fire-related activities (including wildfire suppression or prescribed fire) on or in proximity to the USAFA (covered under mutual aid agreements {MAA}) involving NR employees are the responsibility of the USAFA. These employees will report directly to USAFA FES on these activities.

Additional support for planning fuels reduction treatments and performing fire suppression are provided through AFCEC/CZOF Midwest Region, which is presently staffed with one employee. Anticipated future staffing includes an additional overhead employee at the regional level and potentially a six-person module based out of Cheyenne Mountain Space Force Station south of Colorado Springs.

3.2.2 External Partnerships

USAFA FES provides and receives fire protection and hazardous materials incident response mutual aid from outside agencies. These agreements are updated every 3 years or as needed. MAAs are in place with the following organizations. Copies of these agreements are available upon request.

- Black Forest Fire/Rescue Protection District
- Fountain Fire Protection District
- Colorado Springs Fire Department
- Colorado State Patrol
- Security Fire Department
- Ellicott Fire Department
- El Paso County Sheriff's Office
- Falcon Fire Protection District
- Northeast Teller County Fire Protection District
- Palmer Lake Fire Department
- Tri-Lakes/Monument Fire Protection District
- Hanover Fire Protection District*

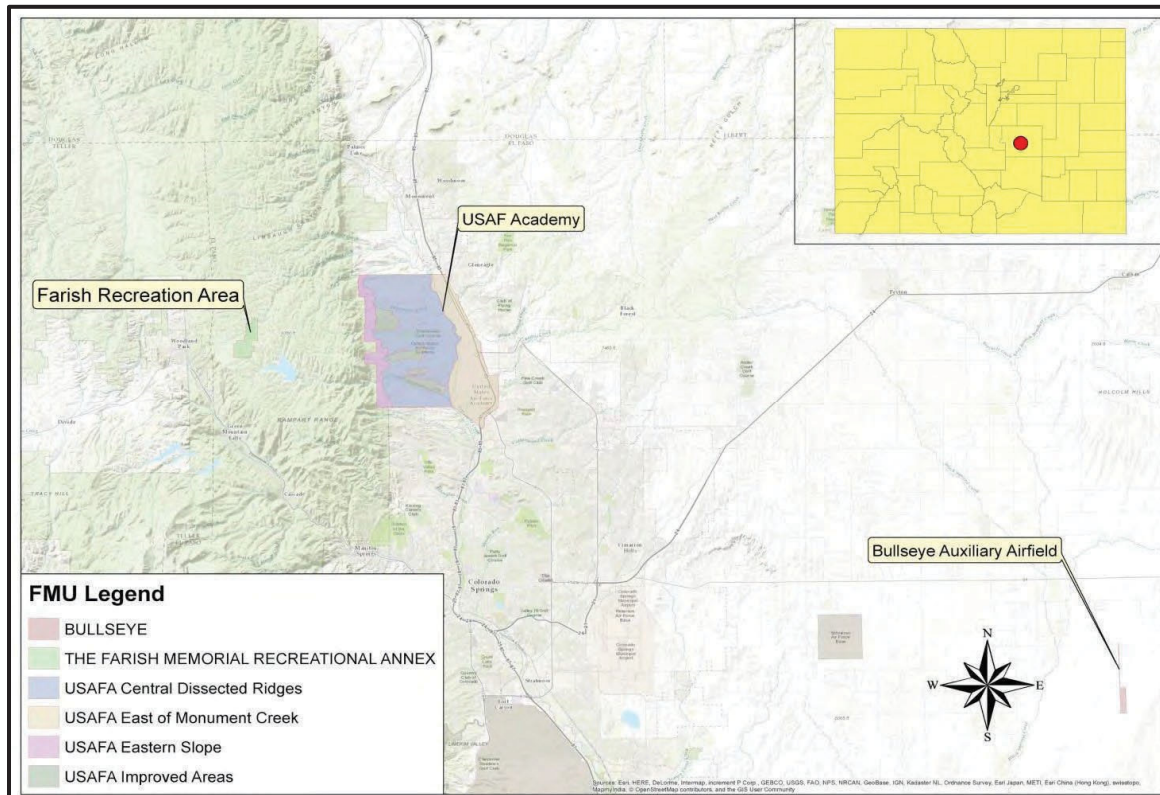
3.3 WILDLAND FIRE MANAGEMENT UNITS (FMU)

Table 3 is a summary of all USAFA FMUs. Descriptions for each FMU and a map of each unit are provided in the following sections.

Table 3: Summary of FMUs

FMU Name	Response to Wildfire	Acres (Burnable)	Fuel Models
USAFA Central Dissected Ridges	Full Suppression	10,313 (10,313)	FM1, FM2, FM4, FM6, FM8, FM10
USAFA East of Monument Creek	Full Suppression	4,713 (4,713)	FM1, FM2
USAFA Eastern Slope	Full Suppression	1,797 (1,797)	FM2, FM8, FM10
USAFA Improved Areas	Full Suppression	1,632 (1,300)	FM1, FM2, FM8
Farish Recreation Area	Full Suppression	655 (653)	FM1, FM2, FM8, FM10
Bullseye Auxiliary Field	Full Suppression	128 (126)	FM1

Figure 4: Map of FMUs



3.3.1 FMU #1 – USAFA Central Dissected Ridges

- **Wildland FMU Description**

The east-west drainages that flow towards Monument Creek define the largest FMU on the USAFA. The topography consists of low, long ridges separated by valleys and tributaries flowing east towards Monument Creek. Elevations range from 6500-7200 feet. Vegetation types are largely slope position and aspect dependent. Grasslands and open ponderosa pine woodland occur in valley bottoms. Gambel oak shrub fields of various ages are on back slopes and ridge tops. Ponderosa pine woodland is the dominant forest type, with some areas of mixed conifer forests on north facing slopes. Fuel models in this FMU are primarily FM1, FM2, FM4, FM6, FM8 and FM10. Expected fire intensity for these fuel models is slope and vegetation dependent, with high intensity anticipated in Gambel oak pure stands or understory on steep slopes. The USAFA Improved Areas FMU is largely contained within the greater USAFA Central Dissected Ridges.

Historically, this FMU has received the most WUI prescribed fire and hazardous fuels reduction. There has been significant effort to accomplish mechanical thinning in this FMU in recent years. Much of the woodland stands have been treated once, and many are ready for prescribed fire treatment. Adjacent WUI areas make this unit critical for resource protection. Untreated fuels

pose a risk to urban development to the north and south of the USAFA. These developments increase the complexity of any potential prescribed burns and present difficult conditions for smoke dispersal that limit potential burning windows. This FMU is important habitat for ungulates and is an important area for habitat improvement prescribed burns.

- **Wildland FMU Goals and Objectives**

All Initial Attack (IA) wildfires will be attacked aggressively utilizing a full suppression approach. Prescribed fire and non-fire fuel treatments will be utilized to contain/control noxious weeds, return timber (such as Ponderosa Pine) and shrub lands (such as Gambel Oak) back to an earlier seral stage ecologically, promote biodiversity through improved wildlife habitat and restore historic processes to the ecosystem. Non-fire fuels treatments will focus on sustainable fuelbreaks along existing natural barriers as well as known WUI areas. Hazard trees will be identified annually along hiking trails and near buildings by utilizing the U.S. Forest Service Hazard Tree Rating system.

Retardant or foam, containing phosphorus, will not be used within 300 feet of all waterways including:

- Monument Creek
- Jacks Valley Creek
- Deadman’s Creek
- Lehman Run
- West Monument Creek
- Non-Potable Reservoir #1-3
- Ice Lake

- **Wildland FMU Planned Fuels Treatments**

Prescribed fires will be used in conjunction with mechanical methods and herbicide treatments as specified in other installation plans to help control invasive species, improve wildlife habitat, and reduce the buildup of hazardous fuels. Burn complexity will increase for prescribed burning adjacent to communities beyond the USAFA’s boundary and near values to protect.

- **Wildland FMU Values to Protect**

Heat Plant	Falcon Club
Wastewater Treatment Plant	Fam Camp
General Officers Quarters	Substations
Railroad Bridges	CATM
All Portable Tanks Except #1	Capp’s Cabin
Jack’s Valley East Munitions Storage	Indigenous Houses
Child Development Centers	Housing Areas
Riding Stables Office,	Cemetery
West Ammo Storage	Boy Scout Huts
FERL Complex	Golf Course
ECAC	Stables Complex
Falcon Stadium	Hobby Shop

Boy Scout Camping Area
 Archery Range/PARS Course
 Fire Training Center Classroom
 Preble’s Meadow jumping mouse habitat

Falcon Trail
 Aircraft Displays
 Non-Potable Water Wells

- **Wildland FMU Safety Considerations**

Firefighting resources must pay attention to public safety of adjacent communities. ICs should coordinate suppression response with adjacent firefighting departments and public safety agencies to plan contingencies and evacuations for fire spreading to adjacent communities, Military Training Area, explosives, Firing Range, etc.

- **Wildland FMU Fire Risk Mitigation Strategies**

Based on the Colorado Forest Atlas, wildfire risk on USAFA is considered low to moderate for most of the Academy. This can also vary depending on the time of year and weather or wind events. Fire risk mitigation strategies will primarily consist of continuing fire and non-fire fuels treatments, as well as interventions in the WUI areas of the Academy to reduce the probabilities of a wildfire spreading to the structures in the developed areas of the Academy. Following (Table 4) are steps that can be taken to reduce the wildfire risk in these areas:

Table 4: Recommended Wildfire Risk Mitigation Strategies

Task	Responsible Party	Recommended Schedule
Conduct routine maintenance and clearing (tree removal / mowing/mastication) of fuelbreaks around the installation.	NR/WSM	Every 2-4 years or as needed.
Mow a 10-foot line on the inside of wooden fences, and 20-foot-wide line on the outside of the vinyl residential fences. This defensible space will reduce the chances of igniting the wooden fence or melting the vinyl fence during prescribed fire operations and will reduce the chance of structure loss during a wildfire.	CES/WSM	Conduct initial mowing before start of dormant vegetation fire season and maintain as needed.
Remove flammable vegetation and debris within 30 feet of WUI structures. This zone is known as the “Structure Ignition Zone.”	CES	Conduct initial removal within one year and maintain annually or as needed.

Only plant native vegetation with high moisture content. Consider using “xeriscaping” landscaping where adequate irrigation of vegetation is not available.	NR	N/A
Choose fire-resistant materials for new construction and renovations.	CES	During new construction or renovations.
Choose fire-resistant materials for outdoor fixtures, such as outdoor furniture.	CES	As fixtures are replaced.
Close or screen any holes, gaps, or other openings in buildings that may allow embers to enter.	CES	Conduct initial inspection within 1 year; conduct maintenance annually or as needed.
Prune trees 6 feet above the ground in areas outside of burn units to eliminate ladder fuels.	NR	Annually
Conduct public outreach and notification as described in Section 4.1.4	PAO/NR/FES	Annually
Keep vegetation under powerlines mowed	CES/WSM	Annually

3.3.2 FMU #2 – USAFA East of Monument Creek

- **Wildland FMU Descriptions**

East of Monument Creek is a gentle slope leading to a broad plain dissected by several small tributaries flowing west towards Monument Creek. Elevations range from 6400-6700 feet. Vegetation in this FMU is predominantly grassland, with areas of ponderosa pine woodland found along drainages and in plantations in the uplands. Fuel models are largely FM1 and FM2. Fire intensity is largely homogenous for this unit, but due to the large unbroken grasslands, rate of spread is expected to be rapid.

Due to the predominant vegetation, little historic hazardous fuels activity has taken place in this FMU. Because of smoke dispersal concerns in proximity to I-25 and the USAFA’s airfield, it is unlikely that large scale prescribed fire activities would take place in this FMU. Surrogates for fire such as mowing or mastication may need to be implemented as alternative treatments.

- **Wildland FMU Goals and Objectives**

All IA wildfires will be attacked aggressively utilizing a full suppression approach. Prescribed burning for both ecological restoration and hazardous fuels reduction is recommended in this FMU, where feasible. Non-fire fuels treatments will focus on sustainable areas for fuelbreak establishment and maintenance.

- **Wildland FMU Planned Fuels Treatments**

In this FMU, surrogates for prescribed fire such as herbicides, mowing, and mechanical mastication will be the primary tool to help control invasive species, improve wildlife habitat, and reduce the buildup of hazardous fuels. Retardant or foam will not be used within 300 feet of all waterways including:

- Monument Creek
- Smith Creek
- Elkhorn Stream
- Kettle Creek Lake #1-3 38

- **Wildland FMU Values to Protect**

Service and Supply Complex	LVIS
Sewage Lift Stations	Pass & ID Building
Railroad Bridges	Indigenous Houses
Main Airfield runway/buildings/infrastructure	Cell Towers
Army National Guard Building	Solar Array
Working Dog Kennel	Non-Potable Water Well
Preble’s Meadow jumping mouse habitat	Santa Fe Trail

- **Wildland FMU Safety Considerations**

Firefighting resources must pay attention to public safety of the adjacent communities, I-25, and USAFA Airfield. ICs should coordinate suppression response with adjacent firefighting departments and public safety agencies to manage highway safety and plan contingencies and evacuations for fire spreading to adjacent communities.

- **Wildland FMU Fire Risk Mitigation Strategies – See Table 4 as an example.**

3.3.3 FMU #3 – USAFA Eastern Slope

- **Wildland FMU Descriptions**

The eastern slope of the Rampart Range begins near the western edge of the USAFA. In this FMU, the east west drainages are present, but there is also a larger trend in the slope steepening to the west. Elevations range from 7200-7800 feet. Vegetation is variable due

to the dissected relief, but is largely ponderosa pine woodland, mixed conifer woodland, and Gambel oak shrublands. Fuel models are predominantly FM2, FM8 and FM10. Fire intensity is likely to be greatest in Gambel oak shrublands on steep slopes or where mixed conifer and ponderosa pine woodlands are near Gambel oak shrublands or have a Gambel oak understory. Due to the steeper slopes present in this FMU, rapid rate of spread is anticipated, especially if fire reaches the base of the Rampart Range.

- **Wildland FMU Goals and Objectives**

All IA wildfires will be attacked aggressively utilizing a full suppression approach. While prescribed fire may be an option, mechanical fuels treatments will continue to be an effective wildland fire management tool within this FMU. Identify hazard trees annually along hiking trails, near buildings and the like. Utilize the U.S. Forest Service Hazard Tree Rating system.

- **Wildland FMU Planned Fuels Treatments**

Treatments to reduce fire behavior and facilitate suppression actions are occurring and planned in the Eastern Slope FMU. Based on the behavior of the June 2012 Waldo Canyon Fire, mechanical fuels reductions and prescribed fire are critical in stopping or slowing a large wildfire moving down from the Rampart Range into the WUI areas of the USAFA.

In this FMU, prescribed fires will be used in conjunction with mechanical methods and herbicide treatments as specified in other installation plans to help control invasive species, improve wildlife habitat, and reduce the buildup of hazardous fuels. Retardant or foam will not be used within 300 feet of all waterways including:

- Stanley Canyon Creek
- Deadman's Creek
- City Treatment Plant #1-3
- Non-Potable Reservoir #4
- Deadman's Lake

- **Wildland FMU Values to Protect**

Colorado Springs Utilities Water Treatment Plant

- Potable Tank #1
- Cell and Microwave Towers
- SERE Training Facility
- Falcon Trail
- Paul's Pavilion
- Preble's jumping mouse habitat.

- **Wildland FMU Safety Considerations**

Public safety is the main concern for this area. Rapid fire spread and high fire intensity can be expected due to steep terrain, weather, dense fuel loading, and hazards from range operations.

- **Wildland FMU Fire Risk Mitigation Strategies – See Table 4 as an example.**

3.3.4 FMU #4 – USAFA Improved Areas

- **Wildland FMU Descriptions**

Improved areas include the Cadet Area, Douglass Valley Housing, Community Center, and Pine Valley Housing. These areas are generally on a flat valley floor or ridge top with some undulating terrain and are mostly cleared of their native vegetation. Some improved areas on the periphery are in fuel models FM1, FM2 and FM8. This FMU contains all the WUI land on the USAFA.

- **Wildland FMU Goals and Objectives**

All IA wildfires will be attacked aggressively utilizing a full suppression approach. Prescribed fire, if implemented, will be on a limited basis. Continued mechanical reduction around structures is the most effective approach to hazardous fuels reduction within this FMU.

- **Wildland FMU Planned Fuels Treatments**

Historically, some thinning and prescribed fire treatments have occurred in the Improved Areas FMU. Defensible space treatments are not yet complete in all housing areas. Gambel oak shrublands in these areas present a hazard to values needing protection.

Surrogates for prescribed fire such as herbicides, mowing, and mechanical mastication will be the primary tool to help control invasive species, improve wildlife habitat, and reduce the buildup of hazardous fuels. Prescribed fire may be used in very limited amounts. The primary method of reducing hazardous fuels will be through defensible space treatments in the 100 feet directly adjacent to structures. Ridgelines and other prominent control features will be improved to facilitate fire suppression.

- **Wildland FMU Values to Protect**

Cadet Area	Static Displays
Clinic	Air USAFA High School
Prep School	Falcon Trail
Airman Dining Center	Pine Valley Housing
Community Center	Douglass Valley Elementary School
Cadet Observatory	Falcon MEWS Building
Visitor's Center	Senior Officer Quarters
Cell Towers	Douglass Valley Housing

- **Wildland FMU Safety Considerations**
Safety concerns include public evacuations, traffic on roads, possible flammable or combustible substances around homes or structures, WUI areas, structures, airfield, and train tracks.
- **Wildland FMU Fire Risk Mitigation Strategies – See Table 4 as an example.**

3.3.5 FMU #5 – Farish Recreation Area

- **Wildland FMU Descriptions**
Farish Recreation Area is geographically separated 4.6 miles to the west of the main USAFA campus. The terrain is a heavily dissected trellis drainage network of montane valleys and ridges. Elevation ranges from 9000-9400 feet. Slope position and aspect heavily determine vegetation, with south facing slopes and valley floors as grassland/wet meadow, and north facing slopes and ridge tops as montane mixed conifer forest and montane aspen forest. Fuel models are FM2, FM8, FM9, and FM10.
- **Wildland FMU Goals and Objectives**
All IA wildfires will be attacked aggressively utilizing a full suppression approach. Prescribed burning and continued mechanical treatments are recommended in this FMU. Identify hazard trees annually along hiking trails, near buildings and the like. Utilize the U.S. Forest Service Hazard Tree Rating system.
- **Wildland FMU Planned Fuels Treatments**
Mechanical fuels reduction and prescribed burning have largely not taken place in Farish over the past 10 years. Opportunities for fuels reduction exist around structures and egress routes. NR has planned to reduce some Western spruce budworm, and aspen regeneration areas. Prescribed fire is an ideal tool to reduce conifer encroachment into meadows and improve wildlife habitat.

In this FMU, prescribed fires will be used in conjunction with mechanical methods and herbicide treatments as specified in other installation plans to help control invasive species, improve wildlife habitat, and reduce the buildup of hazardous fuels. Burn complexity will increase for prescribed burning adjacent to values to protect. Retardant or foam will not be used within 300 feet of all waterways including:
 - South Beaver Creek
 - Sapphire Lake
 - Leo Lake
 - Grace Lake
- **Wildland FMU Values to Protect**
 - Farish Observatory

- Grace Lake Lodging
 - Sapphire Campground
 - Conference Center
- **Wildland FMU Safety Considerations**
Safety considerations include public safety, one-way roads, narrow roads, powerlines, and structures.
 - **Wildland FMU Fire Risk Mitigation Strategies – See Table 4 as an example.**

3.3.6 FMU #6 – Bullseye Auxiliary Field

- **Wildland FMU Descriptions**
The 128-acre Bullseye Auxiliary Airfield is located approximately 6 air miles SE of Ellicott, Colorado in El Paso County. Bullseye is surrounded by agricultural land as well as shortgrass and mixed grass prairie. The terrain is flat and rolling with some gentle undulation but overall less than 20% slope variant. Fuels consist entirely of FM1, with high potential for wildfire occurrence, especially with Great Plains wind events, with grasses receptive from either the dormant season or seasonal summer curing. Prescribed fire treatments at Bullseye are the preferred fuels treatment for overall ecosystem health improvement.
- **Wildland FMU Goals and Objectives**
All IA wildfires will be attacked aggressively utilizing a full suppression approach. Prescribed burning should be planned and conducted on a regular rotation in the FM1 fuel type.
- **Wildland FMU Planned Fuels Treatments**
Prescribed fire treatments are recommended on this grassland FMU.
- **Wildland FMU Values to Protect**
There are no known values at risk at Bullseye other than adjacent private lands.
- **Wildland FMU Safety Considerations**
Safety considerations at Bullseye include off-road driving hazards, in initial attack of FM1 or prescribed fire holding, as well as high winds in flashy grassland fuel types.
- **Wildland FMU Fire Risk Mitigation Strategies – See Table 4 as an example.**

3.4 MANAGEMENT OF PLANNED FUELS TREATMENT

Fuels treatments including mechanical, chemical, and prescribed fire have been planned using the Environmental Impact Analysis Process covering the next 5 years of work. Implementation will be accomplished based on available funding and treatment prioritization. These projects cover a broad spectrum of habitat management, ecosystem restoration, and infrastructure protection. Treatments include strategically placed fuelbreaks along roads and ridgelines, mechanical and prescribed fire treatments to restore stand structure and composition, and defensible space treatments around structures and infrastructure.

3.4.1 Fuels Treatment Performance Information/Targets for Fire and Non-fire Fuel Treatments

The WFPC, NR and FES will meet with the assigned WSM Lead annually to identify and prioritize projects and fuels treatments needed to support INRMP and WFMP objectives.

Annual prescribed fire treatments are expected to average between 50 and 100 acres. Prescribed fire plans typically include multiple treatment units that may total 200 acres or more in the various treatment units. Treatment units may be shifted to a new year if conditions or other circumstances do not allow planned treatments as initially scheduled. Constraints include but are not limited to NEPA clearance, weather, fire risk, and available resources.

Non-fire fuels treatments are expected to average up to 200 acres per year.

Table 5 shows projects to be completed by the WSM and NR staff for the upcoming 5 years.

Table 5: 5yr Projected Fuel Treatments

	Driver	Project Source	2023		2024		2025		2026		2027	
			Amount	Projects	Amount	Projects	Amount	Projects	Amount	Projects	Amount	Projects
Mastication/Fuels Reduction	INRMP, WFMP	WSM	80 - 120 Acres	Western Boundary Mastication, South Doug Valley	80 - 120 Acres	Western Boundary Mastication, South Doug Valley	80 - 120 Acres	Western Boundary Mastication, North Hospital	80 - 120 Acres	Western Boundary Mastication, Boundary Line	80 - 120 Acres	Western Boundary Mastication, Boundary Line
Overstory Thinning	INRMP	Contractors	60 Acres	Stables Units 2 and 3	40 Acres	Stables Unit 3 and East Stables	40 Acres	East Stables	40 Acres	East Stables	40 Acres	East Stables
Prescribed Fire	INRMP, WFMP	WSM, FES, In House	2 Operations	Unit 13, SW Golf Course, WBM Piles	2 Operations	Unit 13, Unit 14, SW Golf Course, Farish Grass Fields, WBM Piles	2 Operations	Unit 13, Unit 14, SW Golf Course, Farish Grass Fields, WBM Piles	2 Operations	Unit 14, Farish Grass Fields, Stables, WBM Piles	2 Operations	Farish Grass Fields, Stables, WBM Piles
Curtain Burner	INRMP, WFMP	WSM	As Needed	Golf Course, Embassy Tree Lot, Natural Resources	As Needed	Golf Course, Embassy Tree Lot, Natural Resources	As Needed	Golf Course, Embassy Tree Lot, Natural Resources	As Needed	Golf Course, Embassy Tree Lot, Natural Resources	As Needed	Golf Course, Embassy Tree Lot, Natural Resources
Defensible Space Treatments	INRMP, WFMP	WSM, FES, In House	1 Treatment	Base Request	1 Treatment	Base Request	1 Treatment	Base Request	1 Treatment	Base Request	1 Treatment	Base Request
Tree Removal	INRMP	Contractors, WSM, In House	300-1200	Removal as Necessary	300-1200	Removal as Necessary	300-1200	Removal as Necessary	300-1200	Removal as Necessary	300-1200	Removal as Necessary
Education	INRMP, WFMP	WSM, FES, In House	2 Events	Arbor Day and Fire Station Day	2 Events	Arbor Day and Fire Station Day	2 Events	Arbor Day and Fire Station Day	2 Events	Arbor Day and Fire Station Day	2 Events	Arbor Day and Fire Station Day

3.4.2 Prescribed Fire Planning

Prescribed fire implementation, including debris burning, will follow the standards set forth in the Interagency Standards for Fire and Aviation Management, and the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide 2022 (PMS 484 - Prescribed Fire Guide). These documents are available on the [NWCG Website](#).

Prescribed fire treatments can be performed by the Cheyenne Mountain WSM, USAFA FES or as a collaborative effort.

The Prescribed Fire Plan at USAFA will be:

- prepared and signed by a qualified NWCG Burn Boss within the assigned WSM.
- reviewed and signed by an NWCG qualified technical reviewer.
- reviewed by the installations Natural Resource staff and FES Chief.
- approved and signed by the Agency Administrator (AA). The AA for USAFA is the 10th Air Base Wing Commander.

The WSM will hold the following qualifications in Table 6:

Table 6: WSM Position Table

NWCG Mnemonic	Wildfire Suppression Position Title	Number Needed
ICT4	Incident Commander Type 4	1
ICT5	Incident Commander Type 5	3
RXB2	Prescribed Burn Boss, Type 2	1
RXB3	Prescribed Burn Boss, Type 3	1
ENGB	Engine Boss, Single Resource	3
FAL3(T)	Basic Faller	6
FAL2	Intermediate Faller	3
FFT1	Firefighter, Type 1	3
FFT2	Firefighter, Type 2	6

3.4.3 Prescribed Fire Operations

At Regional or National Preparedness Levels 4 or 5, consult the AFWFB for instruction on prescribed fire authorization.

Cooperators, such as members of Municipalities and Volunteer Fire Departments, must have appropriate NWCG qualifications certified by their agency. Those who supervise Air Force employees or contractors during prescribed fires must meet Air Force standards.

Operational Checklist:

- Burn Boss will ensure all local, state, and smoke management permits are in place and current.
- Burn Boss will notify staff assigned to the project to ensure adequate planning of work and leave schedules.
- Check all engines, tools, supplies, etc.
- Burn Bosses will report to the Wildland Fire Program Coordinator by the day before the burn day.
- Complete public and media contacts as designated in the burn plan.
- Use warning signs and/or road guards to advise motorists of a prescribed fire in progress, especially if smoke could reduce visibility.
- Close Air Force roads adjacent to burn units temporarily as needed.
- Obtain weather forecasts for the burn day and the next two forecast periods. Use test fires to assess holding capability and smoke dispersal.
- All contingency forces will be confirmed as being in the required status specified in the burn plan before the prescribed fire is ignited.

3.4.4 Prescribed Fire Conversion to Wildfire and Required Reviews

Immediate notification to dispatch and NR head staff is required. All prescribed fires converted to wildfires will have an After-Action Review after the incident is over. The process will focus on the “what” and not the “who” of what led to the conversion. The protocols for these types of incidents are based on the NWCG [*Interagency Standards for Fire and Aviation Operations*](#) (Red Book). The following is the minimum to discuss prior to planned actions:

- Wildfire Declared By: Burn Boss in accordance with the Interagency Prescribed Fire Guide.
- IC Assignment: If a wildfire is declared, the Burn Boss or appropriate level IC will be the IC. An ICT3 or ICT4 will be identified prior to ignitions.
- Notifications: Burn Boss will:
 - Notify Dispatch as soon as the prescribed fire is converted to a wildfire.
 - Notify all personnel on fireline of the conversion and identify the IC.
 - Remove any non-red carded arduous duty rated fire fighters.
 - Give timely updates to Dispatch.
- Extended Attack Actions and Opportunities to Aid in Fire Suppression:

- Individuals working on the converted fire will only do so at their qualified level as determined by (IQCS).
- A wildfire “Fire Code” will be assigned to the fire for financial coding.

3.5 FUELS TREATMENT REPORTING REQUIREMENTS

WSMs will submit the fuel treatment reports to the AFWFB for inclusion in the AF Wildland Fire Database within 10 days of treatment completion.

The fuel treatment report will include:

- Installation / Range
- Treatment date
- Treatment type
- Acres treated
- Start time
- Control time
- Fire Zone/burn unit
- Anderson fuel model
- Treatment objective
- All equipment used on the treatment and the assigned organization
- All personnel / NWCG position used on the treatment and their assigned organization
- Geospatial data showing treatment boundaries

3.6 FUELS FUNDING PROCESS

The Wildland Fire Program Coordinator along with the WSM Lead will work with the AFWFB to determine requirements and secure funding to meet those requirements.

3.7 REQUESTING ADDITIONAL RESOURCES

If additional resources are needed to fulfill INRMP and WFMP goals and objectives, the WSM Lead will contact their FMO with a detailer’s request. Resources will be taken from other WSMs if available. If no WSM support is available, then the AFWFB may use reach back assistance from local agencies to supplement the AFWFB staff following any MAA/MOUs in place. If local agencies do not have enough resources, then partnered interagency such as USFWS and BLM may be utilized.

4. WILDLAND FIRE OPERATION AND MITIGATION

4.1 WILDFIRE PREVENTION

The cost and risk of fire suppression greatly exceeds the cost of fire prevention. A good fire prevention program will always be cost effective, measured by a decrease in numbers of blackened acres and an increase in public trust.

4.1.1 Wildfire History

Changing fuel complexes in combination with significant rapid expansion in the WUI have created a significant wildfire protection challenge nationally. Wildfire risk to health and safety, communities, infrastructure and natural resources is escalating across the United States, with climate change and population growth being the catalyst. Wildfire recognizes no boundaries or jurisdictional responsibilities. A single wildfire event can rapidly overwhelm private, county, state, tribal and federal lands simultaneously while also threatening communities, infrastructure, economies as well as valuable natural and cultural resources.

The Front Range is not immune to outcomes generated by the interaction of wildfire, urban expansion and altered fuel complexes. In the past three decades, an increase in fire behavior, home and property losses, suppression costs and threats to communities and social infrastructure, as well as deteriorating ecological conditions are taking place. In Colorado, average annual statewide wildfire occurrence in the past decade shows an alarming increased trajectory.

Catastrophic wildfires have been increasing in size and frequency nationally since the 1980's. Impacts to the Front Range of Colorado from catastrophic fire in 2002 were some of the most devastating in the United States. Wildfires burned at high, explosive intensities causing extreme difficulties with suppression efforts. The 137,526-acre Hayman wildfire in 2002 on the Pike National Forest destroyed 133 homes and 466 other structures. Nearly 62,000 acres burned in one day, causing the evacuation of over 5,000 people. There were nine other large (greater than 100 acre) fires that season on the Front Range forests.

During the summer of 2012, the Waldo Canyon Fire ignited in the Rampart range west of Colorado Springs. Over several days, the fire grew to 18,247 acres, killing two people, destroying 346 homes, and initiating the evacuation of over 32,000 people. 147 acres of the USAFA burned in the fire, and the housing areas in Pine and Douglass Valleys were evacuated as a precautionary measure. Dozers from nearby Fort Carson were able to construct an eight-dozer wide fuelbreak. The fuelbreak, in conjunction with USAFA Airfield firefighting equipment and water and retardant drops, helped minimize the impact of the fire on the USAFA. No structures were lost, as the fire was contained to the grassland areas on the southwest side. Despite the scale of the fire, scheduled in-processing for the incoming freshman class was not impacted.

In June 2013, the Black Forest Fire started several miles east of the USAFA. The fire grew to 14,280 acres, and burned over 502 structures and again forced evacuation of thousands of people. Fire suppression personnel from the USAFA were utilized along with personnel from Fort Carson to assist the suppression effort. Additionally, the USAFA Airfield was used as a staging area for CH-47 Chinook helicopters being used to suppress the fire. Col. Marty Schlacter of the 10th Mission Support Group said that 29 personnel from the USAFA fire department were able to save approximately 100 homes in the Black Forest Region. A wildfire history of the last 5yrs can be found on Table 7.

4.1.2 Wildfire Occurrence

Wildfires started on the USAFA have historically been caused by both natural and human causes. No fewer than 24 lightning caused fires have been recorded since 1988, with all limited

to less than an acre in size and often only impacting a single tree. Lightning fires have occurred throughout the forested areas of the installation.

Though fires at the USAFA and Farish are ignited by a variety of sources, they are typically human caused and occur in the more heavily used portions of the installation. Only two of the fires occurred at Farish and both are included in Table 7. Due largely to the elevation and lack of human impact; all the fires caused by military training occurred in and around Jacks Valley training area. Human-caused wildfires are the most common wildfires started on the USAFA, though few have been arson. Common causes of human-caused ignitions include accidental starts by children along and in the developed areas of the USAFA, escaped campfires in the camping areas, munitions, and arcing power lines, particularly near Interstate 25. Multiple escaped prescribed fires have been recorded since 1988, though all were small spot fires caught at three (3) acres or less. These escapes do however, highlight the need for extreme care when conducting prescribed burns on the Front Range. Spot fires that are not caught when they are small have the potential to become large wildfires. Other causes of wildfires on the USAFA include discarded cigarettes, fireworks, trains, unattended brush piles, and hikers.

Wildfires on the USAFA lands are generally small, most likely attributed to rapid detection and suppression response. Most fires are controlled at less than an acre. The largest and most notable fire on USAFA was the Waldo Canyon Fire that crossed over the USAFA boundary and burned 147 acres on the USAFA.

Table 7: USAFA Wildfire History

Fire#	Date	Acres
ACES1800440	9/24/2018	22
ACES1800487	10/18/2018	<1
ACES1800557	12/1/2018	<1
ACES1800559	12/2/2018	<1
ACES1900145	4/7/2019	<1
ACES1900405	7/31/2019	<1
ACES1900517	10/1/2019	<1
ACES1900596	11/3/2019	<1
ACES200020	1/21/2020	<1
ACES2000138	4/6/2020	<1
ACES20000241	7/12/2020	<1
ACES2000412	10/28/2020	2
ACES2000432	11/5/2020	<1
ACES2000462	12/11/2020	<1
ACES2000455	12/5/2020	<1
ACES2100499	9/24/2021	<1
ACES2100579	11/11/2021	<1
ACES2100626	12/12/2021	35
AFA22009588	3/31/2022	<1
AFA22020373	7/9/2022	<1
AFA22020470	7/10/2022	2
AFA22031851	10/25/2022	<1
CSFD22016200	6/1/2022	<1
CSFD22016476	6/4/2022	<1

4.1.3 Preventions Activities

The primary objective of Prevention Activities is to prevent human-caused fires through education and dissemination of information to AF personnel, homeowners, and cooperating agencies. The education and outreach efforts may include:

- Cross-training with local agencies.
- Posting current fire behavior and danger levels to local message boards.
- Educating youth on the dangers of playing with lighters or other fire-causing items.
- Performing fuels mitigation/reduction.
- Informing military commanders of current fire danger while utilizing training ranges.
- Closures of ranges and trails that are at a high risk for wildfire.
- Maintain equipment (vehicles, PPE, tools, ATVs/UTVs, radio communications, etc.) to be effective and successful in suppression efforts.
- Events to educate the public and local schools on proper forest and fuels management along with projects implemented at USAFA

4.1.4 Public Information, Education and Outreach

The outreach goal is to enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education. Information about fire ecology and the differences between planned and unplanned ignitions will be incorporated into outreach programs and informal contacts. Information and education are critical to increasing support for prescribed fires. Wildfire prevention centers around education and awareness. Education begins with schools teaching children about the detriments of wildfire and fire safety, which is particularly important given the number of past wildfire starts by children. Prescribed fire classes for interested landowners can be used to reduce the chance of an escaped fire on adjacent land.

Signs or billboards indicating current fire danger can be placed in high traffic areas to warn residents when fire danger is high. Local television news channels should be contacted as to when to mention fire danger warnings to the public.

Integrated education and outreach activities are considered a standard component of any comprehensive wildland fire management plan, and decreasing human caused ignitions that could result in a catastrophic wildfire is a directive from AFCEC and AFCEC/CZOF. Educating the public adjacent to installations about the need for responsible prescribed fire utilization as a land management tool is essential to developing and maintaining fire adapted communities per the National Cohesive Strategy. Providing education on defensible space in communities adjacent to USAFA is also important.

4.2 MANAGEMENT OF WILDFIRES

FES maintains current IA responsibilities on the USAFA. Full suppression tactics should be utilized at all times. Any illegal human-caused wildfire occurring on the installation will be investigated by a qualified wildland fire investigator such as the WFPC (if qualified), a State Fire Investigator, Wildland Fire Investigator (INVF), the FES Chief or Fire Marshall. The WSM at Cheyenne Mountain Space Force Station is available for assistance with IA only upon request of installation FES.

The overarching fire management guidance from the INRMP calls for the active suppression of all wildfires. Suppression response should be swift and appropriately sized based on the IC's size-up and resource needs to contain all new ignitions within one operational period. The primary objective of initial attack and extended attack operations will be wildfire suppression performed prioritizing firefighter and public safety over all other considerations. Protection of cultural and biological resources will be prioritized, but protection of those resources will be secondary to the primary objective. Strategies and tactics used will be at the discretion of the IC to achieve the suppression objectives with the following considerations as guidance:

- If possible, consult the Cultural Resources Manager (CRM) and Natural Resources Department or their representative Resource Advisor prior to the usage of heavy equipment in firefighting operations.

- Inform the CRM of cultural sites discovered during wildland fire operations.
- Use Minimum Impact Suppression Tactics to the greatest extent possible in sensitive cultural areas, or areas of habitat for the Preble's Meadow Jumping Mouse.
- Retardant will not be used within 300 feet of all waterways. The only exception to this rule will be for the protection of life or safety (public and firefighter).
- Staff wildfires during active burning periods until controlled.
- Repair ground disturbed by suppression activities to pre-incident condition.
- Natural recovery is the preferred choice for recovery following wildfires. However, when natural recovery is not likely, there may be a need for ES treatments to prevent further degradation of cultural and natural resources in the burned area. Any seeding or planting will use seeds and plant materials from native sources whenever feasible.

4.2.1 Preparedness and Readiness

Preparedness is defined as activities that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination. Some examples of preparedness are:

- Pre-season wildfire planning with state and local coordinators
- WUI assessments - on installations and with adjacent landowners
- Tactical and initial response planning
- Burned Area Rehabilitation Plan in place (where applicable)

Consider the following:

- Seasonal readiness activities
- Step-up Plan and analysis of historic fire danger indices
- Cache and supply levels
- Communication
- Carrying suppression tools and the appropriate PPE in vehicles during the fire season.

4.2.1.1 Personnel

The following table (Table 8) details the specific number of and types of qualified staff for the USAFA wildland fire management program based upon installation specific risks. There is a shared responsibility between FES, WSM and NR staff to obtain these resources and ensure they are NWCG qualified. Appendix 3 shows a list of current personnel qualifications. Due to the moderate complexity of the fuel types, prescribed burns on USAFA will be Type 2 (RXB2). Vegetation burns are considered low complexity (Type3) and require a RXB3 or above. Burn boss personnel from the Cheyenne Mountain Space Force Station WSM will need to possess these qualifications for burns on the USAFA.

Table 8: Minimum NWCG Qualification Requirements Specific to USAFA

NWCG Mnemonic	Wildfire Suppression Position Title	Number Needed
ICT4	Incident Commander, Type 4	2
ICT5	Incident Commander, Type 5	6
ENGB or ENOP*	Engine Boss/Engine Operator	4
FFT1	Firefighter Type 1	15
FFT2	Firefighter Type 2	25
*ENOP position is available for on installation response only. If mutual aid responses are common, a fully qualified ENGB is required.		

4.2.1.2 Equipment

The equipment list will reflect the needs of the installation as it relates to their wildland fire program. The service of the installations FES wildland firefighting is urban interface. Any commitments to levels above urban interface is an installation responsibility to OT&E.

To support wildland fire management objectives on the installation, the following apparatus is suggested in total to be targeted:

- 2 Type 2 Bulldozers, with Transport
- 3 Type 6 Engines
- 3 Type 3 Engines

Table 9: List of Wildland Fire Equipment and Fire Vehicles

Equipment Size	Tank Capacity	GPM/ PSI if Known
2111 (Type 1 Engine)	500 Gallons	1250 GPM / 150 PSI
2112 (Type 1 Engine)	500 Gallons	1250 GPM / 150 PSI
2113 (Type 1 Engine)	500 Gallons	1250 GPM / 150 PSI
2141 (Type 6 Engine)	250 Gallons	Unknown
2142 (Type 3 Engine)	500 Gallons	500 GPM / 150 PSI
2143 (Type 6 Engine)	250 Gallons	Unknown
2160 (Type 1 Tender)	4000 Gallons	1250 GPM / 150 PSI
Two UTVs	100 Gallons	Unknown
Two UTVs	N/A	N/A

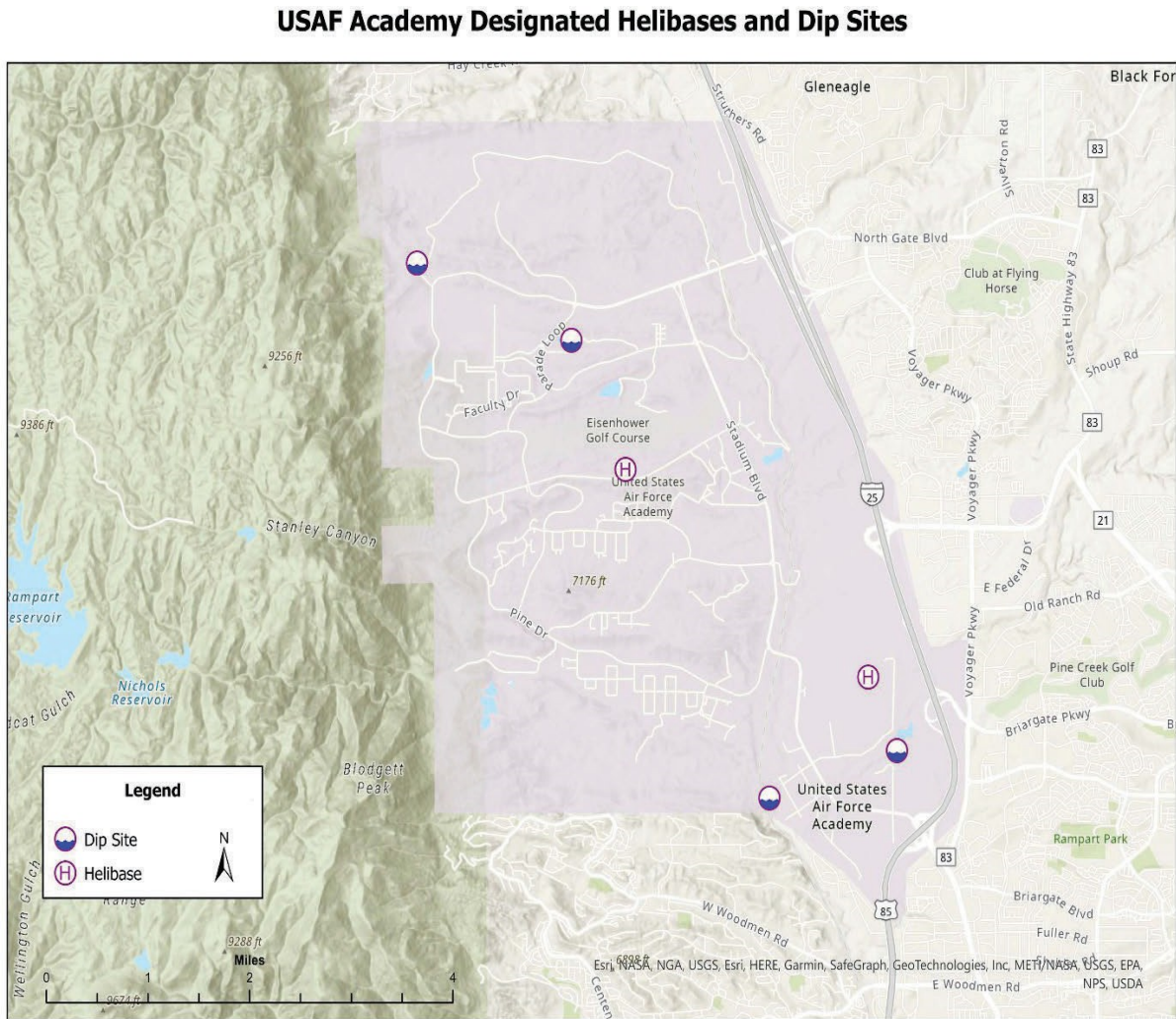
Appendix 2 has a more comprehensive list of equipment.

Note: Heavy equipment can be obtained through mutual aid or agreements with local/state government agencies.

4.2.1.3 Water Resources

USAFA maintains a system of hydrants on the installation that are readily available for use during an incident. Additionally, there are four dip sites that can be used for helicopter suppression activities. Figure 5 displays these dip sites.

Figure 5: USAFA Dip Sites and Helibases



4.2.1.4 Fire and Fuelbreak System and Maintenance Plan

A fuelbreak system is a series of modified strips or blocks tied together to form continuous strategically located fuelbreaks around land units. The greatest concern with the current fuelbreak plan at USAFA is that the treatments are disaggregated across the landscape, and not at all contiguous. Fuelbreaks provide quick access for wildfire suppression. Control activities can be conducted more safely due to low fuel volumes. Strategically located, they break up large,

continuous tracts of dense timber, thus limiting uncontrolled spread of wildfire. Fuelbreaks can aid firefighters greatly by slowing fire spread under normal burning conditions. However, under extreme conditions, even the best fuelbreaks stand little chance of arresting a large fire, regardless of firefighting efforts. Such fires, in a phenomenon called “spotting,” can drop firebrands 1/8-mile or more ahead of the main fire, causing very rapid fire spread. These types of large fires may continue until there is a major change in weather conditions, topography, or fuel type. It is critical to understand that a fuelbreak is a line of defense. The area (including any homes and developments) between it and the fire may remain vulnerable. Despite these somewhat gloomy limitations, fuelbreaks have proven themselves effective in Colorado. During the 1980 Crystal Lakes Subdivision Fire near Fort Collins, crown fires were stopped in areas with fuelbreak thinning, while other areas of dense lodgepole pine burned completely. A fire at O’Fallon Park in Jefferson County was successfully stopped and controlled at a fuelbreak. The Buffalo Creek Fire in Jefferson County (1996) and the High Meadow Fire in Park and Jefferson Counties (2000) slowed dramatically wherever intense forest thinning had been completed. During the 2002 Hayman Fire, Denver Water’s entire complex of offices, shops and caretakers’ homes at Cheesman Reservoir were saved by a fuelbreak with no additional firefighting intervention.

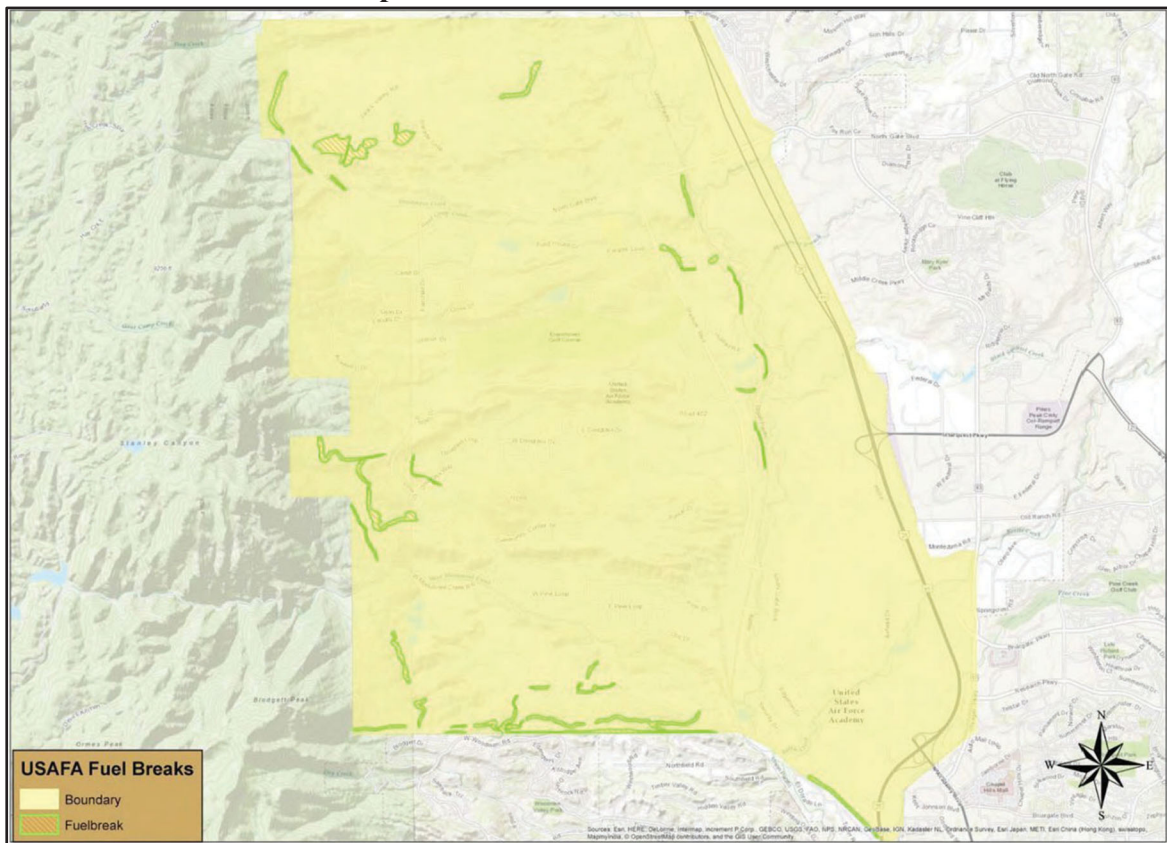
In fire suppression, an effective fire line is connected, or “anchored,” to natural or artificial fire barriers. Such anchor points might be rivers, creeks, large rock outcrops, wet meadows, or a less flammable timber type such as aspen. Similarly, properly designed and constructed fuelbreaks take advantage of these same barriers to eliminate “fuel bridges.” (Fire often escapes control because of fuel bridges that carry the fire across control lines.) Since fuelbreaks should normally provide quick, safer access to defensive positions, they are necessarily linked with road systems. Connected with county-specified roads within subdivisions, they provide good access and defensive positions for firefighting equipment and support vehicles. Cut-and fill slopes of roads are an integral part of a fuelbreak as they add to the effective width of modified fuels.

Fuelbreaks without an associated road system, such as those located along strategic ridge lines, are still useful in fire suppression. Here, they are often strengthened and held using aerial retardant drops until fire crews can walk in or be ferried in by helicopter. Preferably, fuelbreaks are located along ridge tops to help arrest fires at the end of their runs. However, due to homesite locations and resource values, they can also be effective when established at the base of slopes. Mid-slope fuelbreaks are least desirable, but under certain circumstances and with modifications, these too, may be valuable. Fuelbreaks are located so that the area under management is broken into manageable units. Thus, when a wildfire reaches modified fuels, defensive action is more easily taken, helping to keep the fire small. For example, a plan for a subdivision might recommend that fuelbreaks break up continuous forest fuels into units of 10 acres or less. This is an excellent plan, especially if defensible space thinning is completed around homes and structures and thinning for forest management and forest health are combined with the fuelbreak. When located along ridge tops, continuous length as well as width are critical elements. Extensive long-range planning is essential in positioning these types of fuelbreaks.

Following initial thinning, trees continue to grow (usually at a faster rate). The increased light on the forest floor encourages heavy grass and brush growth where, in many cases, little grew before. The site disturbance and exposed mineral soil created during fuelbreak development is a perfect seedbed for new trees that, in turn, create new ladder fuels. Thus, in the absence of maintenance, fuelbreak effectiveness will decrease over time.

The linear fuelbreaks on the southern boundary of the installation could be better utilized by anchoring them together. Currently, there is some benefit from the nearly contiguous linear fuelbreaks on the southern boundary; however, without being fully anchored together there are several areas where a wildfire could easily pass through despite the effort to construct these fuelbreaks and maintain them. The same concept applies to linear fuelbreaks on the eastern portion of the installation and the western boundary. To make the most of the existing and planned fuelbreaks it is highly recommended that they are tied together, to the greatest extent possible, to form a solid boundary to protect from wildfire escape or intrusion onto the installation. Likewise, in addition to simply boundary areas, these fuelbreaks should be structured on the eastern part of the installation in alignment with the I-25 corridor given its propensity of wildfire ignitions. Smaller point protection treatment is another viable option around structures on the installation. Once again, to the greatest extent possible, given geographic limitations, these fuelbreaks should be anchored together using available natural and manmade barriers to form a coherent level of protection from wildfire across the landscape. Figure 6 illustrates a map of current fuelbreaks.

Figure 6: USAFA Fuelbreak Map



4.2.2 Training and Qualifications

The Air Force Training, Qualifications and IQCS User Guide, which adheres to NWCG PMS 310-1 standards, establishes minimum education, training, skills, knowledge, experience, and physical fitness standards for Air Force personnel conducting wildland fire operations on Air Force managed lands or mobilizing to fulfill requests supporting the national firefighting effort outside of their home installation. Roles, responsibilities, training and qualifications management processes are also covered in the guide.

This guide represents the most up-to-date information on these topics. Other documents with conflicting information on qualification management and training program should be considered out of date. All prior arrangements conflicting with this guidance or requiring a delegation will require formalizing with the appropriate authority.

USAFA FES maintains annual proficiency to the NWCG S130/S190 certification level. Annually, every firefighter is required to complete RT-130, Wildland Fire Safety Training Annual Refresher. RT-130 is delivered as instructor led training. The Assistant Chief of Training shall coordinate the annual refresher training through the USFWS and the AFWFB (AFCEC/CZOF).

4.2.2.1 FES Training Guidance

Both USAFA FES personnel and NR employees are required to complete RT-130 and the Work Capacity Test appropriate to their qualifications, annually. This training can be performed by the WSM to meet the specific needs of USAFA. As a primary member of NWCG, DoD personnel can instruct NWCG courses and issue certificates as long as the instructors meet NWCG instructor and course standards for delivery.

4.2.3 Wildland Fire Aviation Management

Due to the USAFA's aviation training mission and the importance of aerial firefighting resources, in the event of a wildfire there will be an inherent conflict between training operations and wildland fire operations. To ensure the safety of both aerial firefighting resources and military aircraft, once a wildfire is reported to the USAFA's E-911 Center, the USAFA's E-911 Center will contact the control tower to request new missions be halted and attempt to end ongoing missions as quickly and safely as possible to clear the airspace for firefighting resources. If an initial attack wildfire incident adjacent to the USAFA's boundary is reported, the same procedure will be followed. In the event of an extended attack wildfire on the installation a Temporary Flight Restriction shall be filed with the Federal Aviation Administration (FAA) and would typically be completed by the Air Operations Branch on the incoming Incident Management Team (IMT). The USAFA is considered Class D airspace by the FAA.

Wildland Fire Aviation Management will adhere to the [*Interagency Standards for Fire and Aviation Operations*](#) which establishes uniform safety, communications, and organizational standards for firefighting operations across organizations.

4.2.4 Wildfire Detection

Fires on the USAFA and Farish are generally detected and reported to the USAFA's E-911 Center quickly. The control tower, flight training, and proximity to I-25 allow for rapid detection and reporting. Although fire occurrence in Farish is very low, the high number of visitors and terrain should allow for relatively easy visual detection of fires. Cell phone coverage at Farish is very limited; landline phones would be more reliable to notify the USAFA's E-911 Center.

4.2.5 Wildfire Investigation

Wildfires should be investigated to determine cause, origin, and responsibility. The FES Chief for the installation will investigate all human-caused wildfires at the earliest possible time it can be safely done. Investigations may range from a documented determination of cause by an initial response crew to a criminal investigation by a qualified arson investigator. The FES Chief will determine the level of inquiry initially needed, in conjunction with law enforcement officers.

4.2.6 Wildland Fire Mutual Aid Agreements and/or Cross Boundary Operations

Unified command will be established when the USAFA is responding to a wildfire that has crossed or is likely to cross the USAFA boundary.

Requests for mutual aid by the USAFA ICs or outside agency requests for USAFA resources will be routed through the El Paso County Dispatch Office to the on duty Senior Fire Officer. The fire chief, 10th Civil Engineer Commander (base fire marshal), the 10th Mission Support Group Commander, and the 10th Air Base Wing Commander are all immediately notified of the mutual aid requested or provided.

The El Paso County's E-911 Center is the central dispatch entity for USAFA Fire Protection assets. The center will be the information source for wildfire status, deployment of resources, and initial contact point for responding mutual aid resources. The center is tasked with all fire ground communications that are directed to mutual aid agencies and is the link between the IC and Pueblo Interagency Dispatch Center (PIDC). Once inbound mutual aid resources have arrived at a predetermined staging area appropriate ground communication links between mutual aid agencies and command will be established.

4.3 WILDFIRE INCIDENT MANAGEMENT

4.3.1 Dispatching Beyond Initial Attack

The WFPC will notify AFCEC/CZOF of any wildfire on or threatening Air Force property as soon as practical. Reports will include as a minimum, the date, fire name, fire location (latitude and longitude), total fire area, number of resources assigned, injuries to date, and an assessment of damage to infrastructure, and geospatial data as it becomes available.

A daily report will be provided by the WFPC to AFCEC/CZOF for any wildfires that remain uncontrolled beyond 24 hours. This report should include growth potential, current and expected weather conditions, values at risk, resource needs, and jurisdictions involved.

Wildfires 100 acres or larger in timber fuels, or 300 acres or larger in grass fuels will require completion of an Incident Status Summary (ICS- 209) daily for the incident duration. The ICS-209 will be sent to the PIDC and AFCEC/CZOF. The IC will notify the WFPC whenever it appears a fire will escape initial response efforts, leave installation lands, or when fire complexity will exceed the capabilities of command or operational forces. Additional resources will be ordered through the PIDC, which will mobilize any additional resources, including higher level ICs, IMTs, or additional operational resources. Rocky Mountain Coordination Center would be contacted for additional resource needs. The Dispatcher or WFPC will notify AFCEC/CZOF, which will aid with extended attack support including assisting the WFPC in completing a DoA, if needed.

4.3.2 Delegation of Authority of Incident Commander (IC)

The WFPC will ensure that a DoA is provided to all qualified ICs annually. The installation will use the current AFI or Federal [*Interagency Standards for Fire and Aviation Operations*](#) for supporting guidelines which include the Agency Administrator’s Briefing to IMT and a Sample DoA from Agency Administrator to an IMT.

4.3.3 Wildfire Reporting Requirements

Initial response reporting for all wildfires is accomplished through Automated Civil Engineering System – Fire Department (ACES-FD) by the responding FES. In the event a WSM is called to assist, the WSM Lead will retrieve the ACES-FD fire report, complete an AFWFB Fire Report form, collect spatial data from the fires perimeter and submit it to the AFWFB for inclusion in the Wildland Fire Database.

The AFWFB integrates ACES-FD records not captured by a WSM into the AFWFB database and uses remote sensed satellite imagery and other GIS data to map and analyze wildland fire perimeters that can be detected.

For significant wildfires affecting AF assets or missions, the AFWFB, in partnership with the installation, provides updates to AFCEC/CZO for dissemination to AF and DoD leadership. As soon as practical, the installation WFPC will report any *significant* wildfire incident that occurs on or threatens property under AF jurisdiction to the AFWFB via the RFMO.

A significant wildfire incident is defined in the AFWFB Playbook as:

- Any wildfire greater than 100 acres.
- Any wildfire, regardless of size, that has met any of the following criteria:
 - Significant threat to installation infrastructure/resources

- Major or extended impact on AF missions
- Loss of life
- Negative impact to public health and safety
- Threat to threatened and endangered species

At a minimum, reports will include the following:

- Date
- Fire name
- Fire location (latitude and longitude)
- Fire size (acres)
- Number of personnel/resources involved
- Fire injuries
- Infrastructure damage
- Geospatial data on fire boundary

For uncontrolled wildfires lasting more than 24 hours, the installation WFPC will provide the AFWFB, via the RFMO, a daily report on the potential for fire growth, current and expected weather, resource values at risk, and multi-jurisdictional agency involvement.

For instructions on reporting contact AFCEC.CZOF.FIRECENTER@US.AF.MIL

4.3.4 Wildfire Suppression Repair

- **Emergency Stabilization Plan**

Emergency stabilization efforts will be utilized to prevent further damage to cultural and natural resources as the result of fire suppression activities when natural recovery is not a viable option. Emergency appropriations will be used for ES activities, and the funds must be used within one year of the fire being contained.

An ES plan must be developed within seven calendar days after the wildfire is contained and approved within six business days of receipt by AFCEC/CZOF. The WFPC will be responsible for assembling a team to develop the ES plan. If necessary, resource specialists from cooperators or AFCEC/CZOF may be utilized to form an interdisciplinary team. Proposed treatments should be justified by existing research or monitoring documentation that demonstrates those treatments will provide an effective alternative to natural recovery. ES plans will adhere to the AFI policy.

Damage to improvements because of wildfires is a concern that needs to be addressed during suppression actions as well as post fire. Improvements such as fences, public use facilities, and gates are most likely to be damaged and need to be replaced or repaired. In

addition, erosion, non-native invasive species establishment, and loss of critical habitat may result from wildfires. These areas will need to be identified and the effects mitigated. Mitigations may include placing structures to slow soil and water movement, seeding or planting, and treatment of non-native invasive species. Mitigations should be monitored for effectiveness.

A monitoring protocol for maintenance should be developed as part of the ES. Seasonality and burn severity will be determinants in the type and amount of monitoring needed.

A report should be prepared completed by the end of the fiscal year to document accomplishments, monitoring costs, and monitoring results. If the monitoring protocol identifies the need for multiple year monitoring, a report should be prepared at the end of each fiscal year. These reports should be filed in the wildfire project file and a copy sent to AFCEC/CZOF.

- **Burned Area Rehabilitation**

The USAFA Natural Resources Department is responsible for evaluating wildfire resource damage, recommending restoration needs, and monitoring restoration measures to assure the area is restored to as a natural condition as possible. The following will apply only where natural recovery is not likely to occur.

The USAFA NR Department in coordination with FES and the IC will map and inventory the burned area for areas of resource damage or areas requiring post-fire stabilization and flood or debris mitigation. Restoration needs will be evaluated and prioritized, and from this prioritization the USAFA NR Department will develop a resource damage assessment and restoration plan. Use the template available from AFCEC/CZOF.

Most typical short term BAER issues are from hazard trees, debris flows, and noxious weeds introduction. Long-term issues relate to loss of soil productivity (erosion) and vegetation reestablishment (site conversion).

Values to protect include USAFA trails, roads, and utilities from hazard trees or debris flows. Biodiversity, native vegetation, and wildlife can also be harmed from noxious weeds introduction.

BAER activities will be governed by applicable regulations such as the AFI. NEPA requirements may be covered by a CE, but that will be determined by the Air Force Environmental compliance section. Any potential effects to T&E species or their habitat must comply with Section 7 of the ESA.

BAER plans will be submitted to AFCEC/CZOF for review and for clearance for cultural and historical resource protection.

The INRMP criteria for burn area restoration is that the burned area will be restored to as natural a condition as possible within two years following the fire.

BAER is the responsibility of the NR Department. The Primary contact is Joe (Rudick) Murphy, (719) 301-8110.

During the BAER development process, at least one public meeting should be held to obtain input from local communities, neighbors, and stakeholders and to identify issues that need to be addressed.

For funding in years two and three an annual accomplishment report is required. Reports will be completed prior to the end of the fiscal year and will document actual accomplishments, costs, as well as the result of monitoring. The report will be saved in installation unit project files and a copy will be sent to AFCEC/CZOF.

5. ANNUAL REVIEW AND FUELS MONITORING

5.1 ANNUAL WFMP REVIEW AND UPDATES

This WFMP will be reviewed annually and updated as outlined in the AFWFB WFMP review process. The 10th Air Base Wing Commander and the installation WFPC, or representative, are responsible for determining WFMP updates needed annually. The 10th Air Base Wing Commander formally appoints the WFPC in writing. Revisions of this WFMP will be required during the completion of a new, or significantly revised, INRMP and thus will follow the revision schedule of the INRMP from that point forward.

5.1.1 Guidance for WFMP Annual Review

- All WFMPs need to be reviewed annually from the effective date.
- Annual review will follow the plans and permit tracker found on eDASH. Internal review due date is 3 months before annual compliance due date.
- The plan may follow the INRMP schedule and may be revised along with the INRMP every 5 years.
- Recommended that the WFMP be revised once the INRMP is approved to incorporate all changes to the goals and objections.
- Annual signature page is found in [Appendix 6](#). It should be signed annually by the WFPC once all reviews have been completed.

Roles and Responsibilities for Annual Review Process:

Wildland Fire Program Coordinator - will coordinate the annual review with all involved stakeholders. This should include the NR Manager, the FES Chief and the assigned WSM lead. It may also include the Installation Support Section, cultural resources and the Range personnel.

Natural Resource Manager – will review and request all needed changes.

Fire Chief – will review and request all needed changes

Wildland Support Module Lead – will review and make suggestions or recommendations to needed changes.

AFWFB WFMP Manager – will send out annual reminders to the installation's WFPC, FES Chief, WSM Lead and the RFMO one month prior to the internal due date.

Appendix 7 is an annual review signature page.

5.2 TREATMENT EFFECTIVENESS MONITORING

The AFWFB has a fuels monitoring program and can help the installation in development and with questions. For invasive plant issues and monitoring and control actions, refer to the INRMP and other installation or site pertinent plans. A copy of the AFWFB Fuels Monitoring Protocol is provided in [Appendix 4](#).

LIST OF ACRONYMS

ABW	Air Base Wing	IC	Incident Commander
ACES-FD	Automated Civil Engineer System -- Fire Department	ICRMP	Integrated Cultural Resources Management Plan
AF	Air Force	ICS	Incident Command System
AFB	Air Force Base	ICT4	Incident Commander Type 4
AFCEC	Air Force Civil Engineer Center	ICT5	Incident Commander Type 5
AFCEC/CZO	AFCEC Environmental Mgt Directorate Operations Branch	IMT	Incident Management Team
AFCEC/CZOF	Air Force Wildland Fire Branch	INRMP	Integrated Natural Resources Management Plan
AFCEC/CZOE	Environmental Operations Division East Region	INVF	Wildland Fire Investigator
AFCEC/CXF	FES Program Manager and Fire Chief	IQCS	Incident Qualifications and Certification System
AFI	Air Force Instruction	IRPG	Incident Response Pocket Guide
AFMAN	Air Force Manual	MAA	Mutual Aid Agreement
AOP	Annual Operating Plan	MOU	Memorandum of Understanding
ATV	All-Terrain Vehicle	NEPA	National Environmental Policy Act
BAER	Burned Area Emergency Response	NFPA	National Fire Protection Association
BASH	Bird/Wildlife Aircraft Strike Hazard	NR	Natural Resources (Program)
CATEX	Categorical Exclusion	NWCG	National Wildfire Coordinating Group
CRM	Cultural Resources Manager	PAO	Public Affairs Officer
DoA	Delegation of Authority	PIDC	Pueblo Interagency Dispatch Center
DoD	Department of Defense	PPE	Personal Protective Equipment
DOI	Department of the Interior	PPWPP	Pikes Peak Wildfire Prevention Partners
EA	Environmental Assessment	PSI	Pounds Per Square Inch
EIS	Environmental Impact Statement	RFMO	Regional Fire Management Officer
ENGB	Engine Boss, Single Resource	RXB2	Prescribed Fire Burn Boss Type 2
ENOP	Engine Operator	T&E	Threatened and Endangered
ES	Emergency Stabilization	USAFA	United States Air Force Academy
ESA	Endangered Species Act	USFS	United States Forest Service
FAA	Federal Aviation Administration		
FAL2	Intermediate Faller		
FAL3	Basic Faller		
FES	Fire and Emergency Services		
FFT1	Firefighter Type 1		

FFT2	Firefighter Type 2	USFWS	United States Fish and Wildlife Service
FM	Fuel Model		
FMU	Fire Management Unit	UTV	Utility Task Vehicle
GIS	Geographic Information System	WFMP	Wildland Fire Management Plan
GPM	Gallons Per Minute	WFPC	Wildland Fire Program Coordinator
GSU	Geographically Separated Unit	WSM	Wildland Support Module
HazMat	Hazardous Material	WUI	Wildland Urban Interface

REFERENCED HYPERLINKS

National Cohesive Wildland Fire Strategy

<https://www.forestsandrangelands.gov/strategy/index.shtml>

AFMAN 32-7003 *Environmental Conservation*, 20 Apr 2020

https://static.e-publishing.af.mil/production/1/af_a4/publication/afman32-7003/afman32-7003.pdf

AFI 32.2001 *Fire and Emergency Services Program*, 28 Sept 2018

[AFI 32-2001 Fire Emergency Services Program \(wbdg.org\)](https://www.wbdg.org/afi/32-2001)

AFWFB Home page

<https://usaf.dps.mil/teams/afwfb/SitePages/Home.aspx>

T&E FWS page

<https://www.fws.gov/endangered/laws-policies/>

Interagency Standards for Fire and Fire Aviation Operations 2022
[Interagency Standards for Fire and Fire Aviation Operations \(nifc.gov\)](#)

Federal Wildland Fire Management Policy 1995
[Microsoft Word - Document2 \(doi.gov\)](#)

Guidance for implementation of Federal Wildland Fire Management policy
[2001 FEDERAL WILDLAND FIRE MANAGEMENT POLICY \(doi.gov\)](#)

Interagency Prescribed Fire Planning and Implementation Procedures Guide PMS 484
<https://www.nwcg.gov/sites/default/files/publications/pms484.pdf>

PMS 310-1
<https://www.nwcg.gov/publications/pms310-1>

National Fire Rating Data Resource System - NFDRS
<https://www.nwcg.gov/committees/fire-danger-subcommittee/nfdrs>

IRPG PMS 641
<https://www.nwcg.gov/publications/461>

Agency Administrator's Delegation of Authority to the Incident Commander
https://gacc.nifc.gov/swcc/management_admin/Agency_Administrator/AA_Guidelines/pdf_files/ch8.pdf#:~:text=execution%20of%20a%20written%20delegation%20of%20authority%20from,a%20agency%27s%20strategic%20direction%20for%20management%20of%20the%20incident.

Federal Wildland Fire Qualification Supplement
https://iqcsweb.nwcg.gov/sites/default/files/inline-files/FedSupplement_2.pdf

National Fire Protection Association (NFPA) Standard 295, *Standard for Wildfire Control**Good*
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=295>

NFPA Standard 1051, *Standard for Wildland Firefighter Professional Qualifications*
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1051>

NFPA Standard 1143, *Standard for Wildland Fire Management*
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1143>

NFPA Standard 1561, *Standard on Emergency Services Incident Management System and Command Safety*
<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1561>

NFPA Standard 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Career Fire Departments*

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1710>

NFPA Standard 1144, *Standard for Protection of Life and Property from Wildfire*

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1144>

Anderson's 13 fuel models

http://www.fs.fed.us/rm/pubs_int/int_gtr122.pdf

Scott and Bergan's

http://www.fs.fed.us/rm/pubs/rmrs_gtr153.pdf

Interagency Burned Emergency Response Guidebook

<https://www.fws.gov/fire/postwildfire/Files/Interagency%20BAER%20Guidebook.pdf>

USFWS Fuels and Fire effects Monitoring Guide

<http://ww.fws.gov/fire/downloads/monitor.pdf>

Air Force Fuels Monitoring Protocol

ICS-214 Activity log

[ICS Form 214, Activity Log \(fema.gov\)](https://www.fema.gov/plan-and-preparedness/initiatives/ics-214)

APPENDIX 1: DELEGATION OF AUTHORITY

Wildland Fire Program Coordinator Delegation of Authority

United States Air Force Academy

DELEGATION OF AUTHORITY FOR WILDLAND FIRE MANAGEMENT

As per AFMAN 32-7003, The Wildland Fire Program Coordinator (WFPC) for the **United States Air Force Academy (USAFA)** is hereby delegated authority to act on my behalf for the following duties and actions within the Zone:

1. Serve as the primary point of contact between the installation and AFCEC/CZOF for all matters concerning wildland fire.
2. Initiate and ensure appropriate installation coordination and timely completion of the WFMP annual review.
3. Coordinate with the AFCEC/CZOF WSM Lead to identify NWCG training requirements needed to implement the installation WFMP.
4. Submit requests for Incident Qualification Cards to AFCEC/CZOF for installations personnel not employed by Fire Emergency Services as specified in the installation WFMP.
5. Coordinate with the installation natural resources manager to assess the need for an Emergency Stabilization Plan and/or a Burned Area Emergency Response Plan after a wildfire incident.
6. Responsible for acquiring required approvals of Agency Administrator Ignition Authorization and Prescribed Burn Go/No Go Checklist prior to initiation of a prescribed burn.
7. Report significant wildfire incidents on the installation as soon as practicable to the RFMO.
8. The WFPC at USAFA is the installation's Forester.

This delegation of authority for wildland fire management program operations will be in effect from date of signature of this WFMP and will follow the INRMP revision process, unless superseded.

APPENDIX 2: WSM AND NR EQUIPMENT LIST

WSM Equipment	Number
Type 6 Engines (1 USAF-GSA, 1 USFWS-Agency)	2
Bobcat Compact Track Loader w/ Mastication Head, Forks, Brush Mower, and Grapple	1
ASV Compact Track Loader (RT-135 Forestry)	1
Vermeer Chipper (BC-1000), Receiver/Pintle Hitch	1
32' Trailer, Gooseneck Hitch	1
18' Trailer, Receiver Hitch	1
12' Trailer, Receiver Hitch	1
Stihl Chainsaw (5 MS-461, 6 MS-362, 3 MS-500i, 1 MS-661)	15
Stihl Pole Saw (HT-133)	2
Stihl Backpack Blower (1 BR-600, 1 BR-800C)	2
Stihl Weed Trimmer (FS-56RC)	1
Stihl Brush Trimmer (2 FS-460C, 1 FS-560C)	3
Honda ATV 4X4 w/ Power Drip Torch	1
Polaris Ranger UTV, Crew 4X4, Closed-cab	1
Polaris Ranger UTV 4X4 w/ 50 gal. pump package	2
Polaris Ranger 6X6	1
Drip Torches	10
NR Equipment	Number
Drip Torches	4
ATV-Honda	1
UTV-Kawasaki	1
Hand Tools	Various
Stihl Chainsaws 461	2
Stihl Chainsaws 044	1
Electric Chainsaws	2
ATV Mounted Torch	1
Vermeer Chipper BC700XL	1

APPENDIX 3: NATURAL RESOURCE PERSONNEL QUALIFICATIONS

Name	Title	Qualifications
Brian Mihalbachler	Natural Resources Manager	FFT2, THSP
Joe Murphy	Forester	FFT1, FAL2, FIRB, ENGB, ICT5, ATVO, UTVO, THSP, READ
Melissa Whittingslow	Biologist	FFT1, ENGB, ICT5, FAL3, FAL2(t), ATVO, UTVO
Bryan Wilfong	Forestry Technician	FFT2, FAL3, ATVO, UTVO

APPENDIX 4: FUELS MONITORING PROTOCOL



Fuels Monitoring
Protocol AFWFB.pdf

APPENDIX 5: PERSONNEL ROSTER CONTACT LIST

USAFA FES			
Contact Name	Position	Phone	Email
Dispatch (El Paso Co. Sherriff's dispatch Center)	FES Dispatch (E-911)	719-390-5555	
Station 1		719-333-2051	
Station 2		719-333-4260	Tyler.moran@us.af.mil
Station 3		719-333-3603	Elaine.perkins@us.af.mil Anthony.mcmurtry@us.af.mil
Ron Prettyman	FES Chief	719-333-2051	Ronald.prettyman.1@us.af.mil
Patrick Kraft	Deputy FES Chief	719-333-2051	Patrick.kraft@us.af.mil
	Safety Chief		
	Other		
USAFA NR			
Contact Name	Position	Phone	Email
Joe Murphy	WFPC	719-301-8110	rudick_murphy@fws.gov
Barry Schatz	Envir. Flight Chief	719-333-6716	barry.schatz.2@us.af.mil
Brian Mihlbachler	NR Chief	719-333-3308	brian.mihlbachler@us.af.mil
Joe Murphy	Forester	719-301-8110	rudick_murphy@fws.gov
Melissa Whittingslow	Base Biologist	719-333-3308	melissa.whittingslow@us.af.mil

USAFA Important Contacts			
Contact Name	Position	Phone	Email
Public Affairs Office		719-333-7731	
	Airfield Management	719-333-2526	
	Command Post	719-333-2633	
	Control Tower		
AFCEC/CZOF			
Contact Name	Position	Phone	Email
Alberto Moreno	RFMO	210-652-6820	luis.moreno.6@us.af.mil
Blake Stewart	AFMO	719-651-0669	Blake_stewart@fws.gov
Brett Idol	WSM Lead	512-234-0891	brett.idol@us.af.mil
Jason Dewhurst	WSM Assistant Lead	719-368-9069	Jason.dewhurst@fws.gov
Brad Shoemaker	Branch Chief	406-702-2344	Bradley.shoemaker.2@us.af.mil
Percy Metivier	Training PM	210-652-6821	Percy.metivier@us.af.mil
Kelley Anderson	Fire Ecologist/ WFMP PM	850-333-8274	kelley.anderson.3.ctr@us.af.mil
AFCEC/CZOE ISS			
Contact Name	Position	Phone	Email
Sean Houseworth	ISS Lead		
Clark Jones	ISS NR Support		

AFCEC/CZOM Regional Support Branch (RSB)			
Contact Name	Position	Phone	Email
William Barry	Regional Support Section (RSS)		william.barry@us.af.mil
Cooperating Agencies & Other			
Agency or Department			Phone
County Fire Departments			

APPENDIX 6: ANNUAL REVIEW HISTORY

Annual Review History		
Review Date	Reviewer Signature	Reviewer Title