Tinker Air Force Base

Wildland Fire Management Plan

2022

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1.0 INTRODUCTION

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

A wildland fire is defined as 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 is to include debris or pile burning.

Development of WFMPs is required by the 2001 *Guidance for implementation of Wildland Fire Management Policy*. This plan will follow the guidelines set by Section 3P of 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 written as a supporting document for implementation of the Integrated Natural Resources Management Plan (INRMP) as mandated 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 Division Management Plans (DMPs) for wildfire response. Implementation of this WFMP will help to develop a coordinated effort to manage wildland fire that support the INRMP and mission support objectives.

This WFMP has been developed to:

- Provide guidance for the suppression and prevention of wildfires on TAFB lands
- Implement ecosystem management and fuels reduction goals using mechanical fuels treatments and prescribed fire in support of Tinker's current INRMP
- Identifies the responsibilities and procedures for prescribed and wildfire management on and adjacent to TAFB
- References documents that provide a planning framework for wildland fire management

1.2 GENERAL DESCRIPTION OF THE WFMP AREA

Tinker AFB covers approximately 5,865 acres of land. Structures include 10,000- and 11,200-foot runways, over 900 buildings, 48 miles of road, and 57 aircraft assigned to associate units. The annual air traffic control traffic count is 34,000 to 36,000, and the annual ground traffic, to include vehicle operations, is approximately 20,000.

Surrounding communities include: Midwest City, bordering the north side of TAFB with a population of 54,371; Del City, bordering the west side of TAFB, with a population of 21,000; and Oklahoma City, bordering the south, southwest, and east sides of TAFB, with a population of 579,999.

Tinker Air Force Base (TAFB), home of the Oklahoma City Air Logistics Complex (OC-ALC) is located in central Oklahoma five miles southeast of downtown Oklahoma City in the heart of the Sooner State and is one of the largest and most important military installations in the United States. A Vicinity Map and an Area Map can be found in Figure 1.1 and 1.2.

Figure 1.1 Vicinity Map

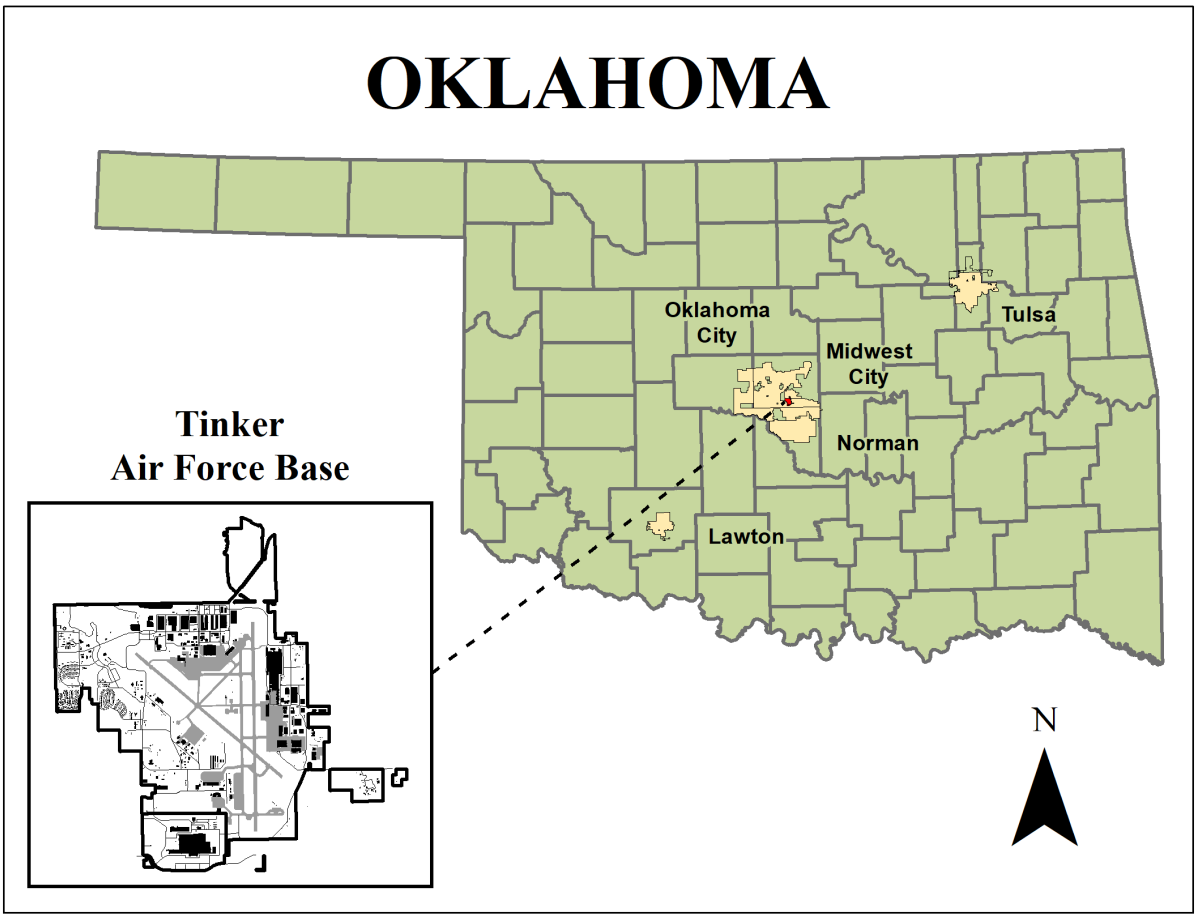


Figure 1.2 Area Map

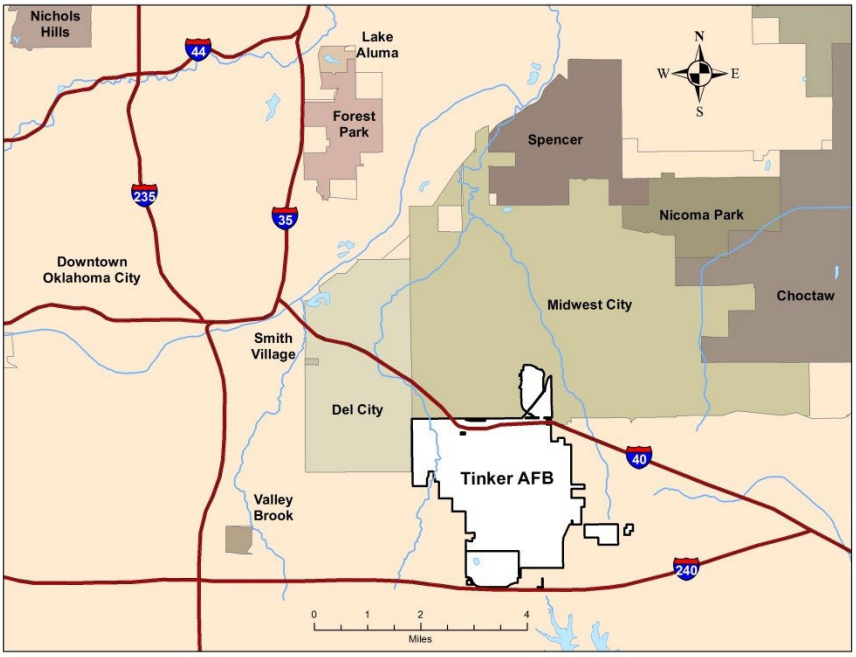


Table 1.1: Areas Covered in the Wildland Fire Complex

Areas Covered within the WFMP	Total Acres (Burnable Acres)
Tinker Air Force Base	5,865 (2,045)
Note: In addition to Tinker acreages identified above, there are about 350 acres of wildlands adjacent to the base that are owned by others (i.e., City of Oklahoma City, City of Midwest City, and others) that are of interest to the Air Force from a wildland fire management standpoint. Specifically, these areas, left unmanaged, pose a high risk of potential catastrophic wildfire that could negatively impact Tinker resources and mission. Consequently, these areas are considered within the scope of this WFMP. If any wildland fire activities are conducted within these areas it is required that an MOU be established with the adjacent landowners.	

1.2.1 General Description of any Geographic Separated Units (GSU)

There are five GSUs under Tinker ownership. Refer to table "Installation/Geographically Separated Units (GSU) Location and Area Descriptions" in INRMP for more information.

1.2.2 General Description of any GSU leased by the AF and used by the Installation.

There is one GSU—Glenwood Training Annex—leased by Tinker AFB. Refer to table "Installation/Geographically Separated Units (GSU) Location and Area Descriptions" in INRMP for more information.

1.3 GENERAL DESCRIPTION OF THE DOD MISSION

Tinker's vital Air Force (AF) mission continues to be dedicated to providing worldwide technical logistics support to AF aerospace weapon systems, equipment, and commodity items,

and encompasses a myriad of responsibilities. The Oklahoma City Air Logistics Complex (OC-ALC) has the unique mission of managing and repairing the engines that power cruise missiles and a variety of AF and Navy aircraft. The center also accomplishes aircraft modifications and repairs, maintains, and overhauls bombers, refuelers, and reconnaissance aircraft including the B-1B, B-2, B-52, E-3, C/KC-135 and KC-46A series aircraft. It performs depot level maintenance (i.e., high level overhaul maintenance such as engine removal and rebuild, painting, etc. as opposed to routine maintenance) on more than 120 aircraft annually. It also organizes, directs, and controls total life-cycle management of over 1100 aircraft. The center also manages the SRAM, SRAM II, ACLM, and GLCM missile systems, as well as the AF's Harpoon missile. The OC-ALC annually overhauls and maintains more than 3,000 major jet engine modules from 11 major commands as well as the Army, Navy, and numerous foreign countries. In addition to aircraft/missile maintenance, overhaul and repair, TAFB provides deployable communications, computer systems, navigational aids, and air traffic control services worldwide for AF, DoD, and other U.S. commitments.

TAFB is the host installation of the 72nd Air Base Wing (72 ABW). Other mission partners of TAFB include:

- 552nd Air Control Wing
- 507th Air Refueling Wing
- 513th Air Control Group
- U.S. Navy Strategic Communications Wing One
- Defense Logistics Agency Defense Distribution Depot Oklahoma City
- 38th Cyberspace Engineering Installation Group
- Defense Megacenter Oklahoma City

1.3.1 General Discussion of Wildland Fire Impacts on DoD Mission

Wildland fires can have both negative and positive impacts to the DoD mission. Negative impacts include wildfires that have the potential to shut down missions at TAFB, as well as the threat to infrastructure on AF property. For example, due to the fuel loads around the wildland urban interface (WUI) of the housing areas within the installation, wildfires have a great potential to cause harm in these areas. Positive impacts of wildland fire, particularly prescribed fire, include the achievement of natural resource goals, such as the reduction of invasive and encroaching species such as eastern red cedar (*Juniperus virginiana*) and callery pear (*Pyrus calleryana*), and reduction of hazardous fuels including eastern red cedar.

1.3.2 General Discussion of DoD Mission Impacts on Wildland Fire Activities

Tinker's military mission has little impact on wildland fire management with minimal to no munitions use on the base. However, the highly populated urban area surrounding the installation, as well as the WUI areas within the installation, can have impacts on wildland fire management. Prescribed fire has a narrow prescription window due to the management of species of concern. Facilities, highways, and certain operations may dictate wind direction, for example, airfield operations can limit window of burning due to specific wind direction requirements (i.e., away from airfield), or some facilities must have smoke carried away to avoid in-facility smoke ingestion which could damage sensitive equipment.

1.4 SIGNIFICANT VALUES TO PROTECT

1.4.1 Natural Resources

Fire is generally considered beneficial to natural resources on TAFB. TAFB is located in the central plains and cross timbers ecoregion which evolved with periodic fire and native vegetation that responds well to fire. Prescribed fire is an important tool in keeping prairies healthy and diverse by reducing competitive, invasive or encroaching plants and by restoring native plants vigor through recycling of nutrients and eliminating thatch buildup. Past management practices of removing riparian woodlands and mowing to the water's edge have impaired TAFB's waterways. Restoring and managing native prairies and savannahs are key to the health of waterways. Native plants filter runoff and possess deep fibrous root systems that prevent erosion.

Healthy natural grasslands maintained by fire benefit wildlife such as the Texas horned lizard (*Phrynosoma cornutum*). Patch burning is recommended in areas containing this lizard to help reduce mortality during prescribed fires.

Prescribed fire also reduces hazardous, encroaching fuels such as eastern red cedar and ornamental plants that were planted in base areas such as Glenwood which was formerly a residential area.

1.4.2 Cultural Resources

Based on past TAFB cultural resources surveys, there are no known cultural resources in burnable areas on the base. However, approximately 170 acres at the SE corner of the base (SE corner of FMU2d) has not been surveyed for historical and archeological resources.

1.4.3 Structures and Infrastructure

Structures and infrastructure are localized at TAFB and are concentrated primarily on the north and east sides of the installation. Base housing is located in the western portion of TAFB, with WUI areas interspersed with no fire breaks present. Key structures located on TAFB at risk from wildfire include the Cyberspace Engineering Installation Group (CEIG), munitions storage, Twaddle Army Reserve Center, and fuel control facility

While most structures have been cleared from the Glenwood area north of SE 29th Street, there remains a significant WUI fire risk in the residential areas surrounding this area, particularly on the western side. Fire breaks and other fuel treatments are therefore recommended in this area. The rarity of easterly component winds in central Oklahoma mitigates some of the risk, though smoke remains a constant concern here given the Glenwood area's location immediately north of the airfield.

1.4.4 Personnel Safety

The primary concern during any fire is human safety and protection. Firefighters on the line, and at the incident command post (ICP) must all be properly trained, outfitted, and informed of all threats and safety risks. Wildland fire operations, both prescribed fires and wildfires, in the Glenwood unit have entrapment risks. The Glenwood unit contains concertina wire, foxholes and concrete blocks throughout the unit. It is recommended to mark these areas and other units with similar concerns before each burn to prevent entrapment.

1.5 WILDLAND FIRE ROLES AND RESPONSIBILITIES

1.5.1 Wildland Fire Program Coordinator

A Delegation of Authority (DoA) is included in Appendix 1.2. The DoA becomes current with the approval and signature of this WFMP. The WFPC for this installation is the Natural Resource Manager.

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 WSM lead to identify NWCG training requirements needed to implement the installation WFMP.
- Submit requests for Incident Qualification Cards to AFCEC/CZOF for installations personnel not employed by Fire Emergency Services as specified in the installation WFMP.
- Assess the need for an Emergency Stabilization Plan and/or a Burned Area Emergency Response Plan after a wildfire incident.
- Responsible for acquiring 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 RFMO.

1.5.2 FES Fire Chief

- Serve as the incident commander during wildfire incidents and may delegate incident commander authority to others based on the complexity of the incident.
- Prepare 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 as per AFI 32-2001.
- Initiate requests for AFCEC/CZOF assistance during a wildfire.
- Develop Mutual Assistance Agreements with regional and local fire departments and land management agencies for wildfire suppression assistance and initiate mutual aid requests.
- Submit requests to the AFCEC/CZOF training manager for NWCG Incident Qualification Cards for qualified Fire Emergency Services personnel.

1.5.3 Natural Resource Manager

The TAFB 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. Related to this, the NRM should coordinate to ensure that the planned actions in the WFMP are covered under the National Environmental Protection Act (NEPA) process for the INRMP.

1.5.4 Incident Commander

All wildfires occurring on an Air Force installation and staffed with Air Force employees will be supervised by a qualified Incident Commander (IC). 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:

- Provide 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).
- Complete and file an incident report with the installation dispatch center.
- Use guidance in this WFMP. If from a cooperating agency, secure a Delegation of Authority 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 being undertaken.
- Determine resource needs and order as needed through local dispatch.
- Ensure all resources assigned and those incoming receive a briefing. Document these briefings. Refer to the Briefing Checklist in the IRPG.
- Continually re-assess incident complexity using the checklist in the IRPG. When a more qualified IC is needed, inform dispatch and delegated unit administrator and place the order for a higher level IC.
- Depending on incident complexity, additional responsibilities for the IC may apply. Utilize AFMAN, National Wildfire Coordination Group (NWCG) Fireline Handbook and AFWFB for more detailed description of IC responsibilities.
- All resources, including mutual aid resources, will report to the IC (in person or by radio) to receive an incident briefing prior to tactical assignment deployment.
- All wildfires must be investigated 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, a qualified wildland fire investigator can be ordered. The point of origin should be protected for investigation purposes.

Exercise additional responsibilities depending on incident complexity. Utilize AFMAN 32-7003, NWCG PMS 210, *Wildland Fire Incident Management Field Guide*, April 2013 (PMS 210), and AFCEC/CZOF for more detailed description of IC responsibilities.

1.5.5 Wildland Support Module

Tinker AFB will be served by the WSM at Joint Base San Antonio (JBSA) approximately 450 miles south, with a response time of 7 hours. The nearest WSM is currently located at Barksdale

AFB (BAFB), approximately 354 miles southeast, with a response time of six (6) hours. WSM Areas of Responsibility (AORs) are depicted in Figure 1.3.

The WSMs shall:

- 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 Prescribed Fire Plans.
- 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.
- Conduct prescribed burning to include pre-burn preparations (e.g., firebreaks) on the installation.

Figure 1.3 WSM Area of Responsibility

1.5.6 Installation Commander

The Installation Commander or his designee is responsible for appointing the WFPC (AFMAN 32-7003) and for reviewing and approving the WFMP. A Delegation of Authority (DoA) should specifically delegate duties from the Installation Commander to the WFPC. The DoA can be found in Appendix 1.2.

1.5.7 Air Force Wildland Fire Branch

- Provide oversight, technical direction, and guidance for wildland fire management planning and implementation for the Air Force. Advocate for resources required to implement the Air Force wildland fire program.
- Develop plans and programs to facilitate Air Force wildland fire policy execution.
- Determine the need for an installation WFMP as a component plan of the INRMP, provide guidance for WFMP content, and develop WFMP in coordination with the installation.
- Establish, with AFCEC/CXF inputs, Regional Fire Management Officer (RFMO) positions to implement installation WFMPs and support wildland fire operations in their respective regions.
- Establish strategically located WSMs at installations and ranges with the highest wildfire risk and most frequent wildfire activity. WSMs shall operate under the installation commander's control. The RFMO and WSM are to support wildland fire operations in their respective regions.
- Manage a system for tracking and reporting of wildfires, prescribed fire, and mechanical/chemical fuel reduction activities that occur on lands under Air Force jurisdiction.
- Administer Wildland Fire training, qualifications management and Incident Qualification and Certification System (IQCS) for the Air Force.
- Function as the AFWFB Training Program Manager and serve as the Air Force agency representative on the interagency IQCS Change Management Board.
- Manage AFCEC/CZOF wildland fire vehicle and equipment assets. Review and advocate for installation-level requirements for wildland vehicles and equipment.
- Provide and manage contracts, interagency agreements, and cooperative agreements with AFCEC/CXF for wildland fire program assistance on behalf of, and for use by, Air Force installations.

1.6 EFFECTS OF CLIMATE CHANGE ON WILDLAND FIRE MANAGEMENT

Climate projections for Tinker Air Force Base (See table, "Summary Climate Data") suggest minimum and maximum temperatures will increase over time under two emission scenarios – a moderate carbon emission scenario (Representative Concentration Pathway [RCP] 4.5) and a high emission scenario (RCP 8.5). The potential impact of these two climate change scenarios on the site's natural resources was analyzed using extracted climate data from 2026 to 2035 to

represent the decadal average for 2030, and extracted data from 2046 to 2055 for the decadal average for 2050.

For the decade centered around 2030, both of the scenarios project a similar degree of increase in average annual temperature (TAVE) of between 2.6 °F (1.4 °C) and 3.9 °F (2.2° C) over historic average. The two emission scenario projections show higher warming by 2050, with RCP 4.5 expressing a warming of 3.6 °F (2.0 °C). RCP 8.5 expresses a slightly greater warming of 5.1°F (2.8 °C) for this period.

Average annual precipitation (PRECIP) varies between emission scenarios and over time due to larger interconnected ocean-atmosphere dynamics associated with the NCAR CCSM model. For 2030, RCP 4.5 scenario projects an increase in PRECIP of 11% while RCP 8.5 shows a more modest increase of 1%. For 2050 RCP 4.5 projects an increase in PRECIP of 14% while RCP 8.5 shows a smaller increase of 5%.

Summary Climate Data

Variable	Historical	RCP 4.5		RCP 8.5	
		2030	2050	2030	2050
PRECIP (inches)	39.4	43.6	44.9	39.9	41.5
TMIN (°F)	49.2	51.6	52.5	53.1	53.9
TMAX (°F)	72.0	74.7	76.0	75.9	77.5
TAVE (°F)	60.4	63.1	64.2	64.4	65.7
GDD (°F)	5367	5973	6148	6214	6490
HOTDAYS	64.1	91.0	102.0	100.7	113.4
WETDAYS	1.3	0.4	1.2	0.1	0.4

Notes: TAVE ºF = annual average temperature; TMAX ºF = annual average maximum temperature; TMIN ºF = annual average minimum temperatures; PRECIP (inches) = average annual precipitation; GDD ºF = Average annual accumulated growing degree days with a base temperature of 50 ºF; HOTDAYS (average # of days per year) = average number of hot days exceeding 90 ºF; WETDAYS (average # of days per year) = annual number of days with precipitation exceeding 2 inches in a day.

As relates to climate change, increased seasonal, annual, minimum, and maximum temperatures and changing precipitation patterns could impact Tinker vegetation. Slight changes in temperature and precipitation can substantially alter the composition, distribution, and abundance of species, and the products and services they provide. The extent of these changes will also depend on changes in the frequency and intensity of fire.

Increased drought frequency could also cause major changes in vegetation cover. Losses of vegetative cover coupled with increases in precipitation intensity and climate-induced reductions in soil aggregate stability could dramatically increase erosion rates.

In general, forests, which comprise a small portion of base land, are susceptible to climate change. Higher temperatures and severe droughts could lead to the direct or indirect loss of trees on Tinker.

2. POLICY AND LAND MANAGEMNT PLANNING

2.1 USAF WILDLAND FIRE POLICY

The intent of this chapter is to establish the linkage between higher level planning documents, legislation and policies and the actions described in the document.

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)
  Is the primary wildland fire policy document for federal agencies, and establishes the guiding principles, policies and implementation actions for wildland fire management on Department of Defense (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*

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

2.1.1 Installation Specific Fire Management Policy

Wildland fire management policy on TAFB is governed by the NRM. No other installation-specific policy documents are currently in place.

2.2 NATURAL RESOURCE MANAGEMENT PLANNING

2.2.1 Relationship to the Integrated Natural Resource Management Plan (INRMP)

The TAFB INRMP is the primary document directing natural resources management on the installation. This document includes overarching natural resources management goals and objectives and strategies to support these goals. WFMP fire and fuels management projects, activities, and tasks fall within two established INRMP goals and one INRMP objective as follows:

INRMP GOAL 1.1: Effectively and efficiently develop and manage Tinker's natural and urban landscape to provide a safe, attractive, functional, low maintenance, and ecologically sound environment in character with the local ecoregion to support mission completion and provide a sustainable living and working environment.

INRMP GOAL 2.1: Establish a healthy and sustainable native fish and wildlife community that enhances warfighter quality of life and reduces human-wildlife conflicts.

INRMP Objective 2: Through 2030, continue to restore and maintain Tinker's green infrastructure to improve habitat structure/health for species at risk (SAR), reduce base mowing requirements, increase and sustain free ecological services provided by the network, promote wildland fire safety, and enhance aesthetics.

> **Project 1:** By 2023, develop natural resources manager WFMP-related annual checklists (e.g., NRM Wildfire Notification Checklist; NRM Post-Wildfire Checklist, etc.)
>
> **Project 2:** Annually, conduct annual review of Tinker AFB Wildland Fire Management
>
> **Project 3:** By 2023, Wildland Support Module (WSM) start mastication of 20 acres of invasive cedars at SE corner of base (area bounded by SE 59th Street on the north; Douglas on the east; SE 74th Street on the south; and Midwest Blvd on the west). Target is 5 acres/year, completing in 2026.
>
> **Activity 1:** By Jan 2024, Tinker NR staff participating in prescribed burning complete First Aid/CPR training per AFMAN 32-7003 (every even year).
>
> **Activity 2:** By 1 Apr each year, annually conduct prescribed burns at golf course conservation areas, Glenwood, select areas in the Urban Greenway, and other base natural areas to suppress woody plant growth, rejuvenate native grassland plants, and meet other burn objectives.
>
> **Activity 3:** By 2023, develop/refine burn objectives and corresponding burn schedules for all base conservation areas and adjacent off-base lands of base significance.
>
> > **Task 1:** In cooperation with the TAFB Fire Department, conduct basewide ground and/or aerial firebreak assessment and develop firebreak plan. In

conjunction with this ensure all wildland/urban interfaces basewide meet the standards set out by the Oklahoma Forestry Services Firewise Communities Program.

2.2.2 Other Relevant Plans

The WFMP is a component plan of the INRMP. Other plans relevant to the WFMP include:

- Green Infrastructure (GI) Plan
- Integrated Pest Management Plan
- Golf Course Environmental Management (GEM) Plan

2.2.3 Environmental Compliance

The AF has procedures for assessing and analyzing the environmental effects of specific prescribed fire, fuels reduction and wildfire suppression rehabilitation actions. These procedures follow law, policy, and regulations related to the following:

- Defense Appropriations Act of 1991, Legacy Resource Management Program (**P.L. 101-511, 104 Stat. 1856**; DAA).
- Executive Order 11514: Protection and Enhancement of Environmental Quality (EO 11514).
- Executive Order 11593: Protection and Enhancement of the Cultural Environment (EO 11593).
- Executive Order 11988: Floodplain Management (EO 11988).
- Executive Order 11990: Protection of Wetlands (EO 11990).
- Executive Order 13112: Invasive Species (EO 13112).
- Executive Order 13175: Consultation and Coordination with Indian Tribal Governments (EO 13175).
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186).
- Archeological Resources Protection Act of 1979 (16 U.S.C. §470 et seq.; ARPA).
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. §668-668c; BGEPA).
- Clean Air Act of 1972 (42 U.S.C. Ch. 85, Subch. I §7401 et seq.; CAA).
- Clean Water Act of 1963 (33 U.S.C. §1251 et seq.; CWA).
- Endangered Species Act of 1973 (16 U.S.C. §1531 et seq.; ESA).
- Emergencies (50 CFR Part 402.05).
- Formal Consultation (50 CFR Part 402.14(c)).
- Memorandum: Alternative Approaches for Streamlining Section 7 Consultation on Hazardous Fuels Treatment Projects, 11 October 2002 (**Memorandum**)
- Federal Land Use Policy and Management Act of 1976 (**P.L. 94-579; 43 U.S.C. §1701 et seq.**; FLUPMA).
- Federal Noxious Weed Act of 1974 (P.L. 93-629; 7 U.S.C. §2801 et seq.; FNWA)

- Fish and Wildlife Conservation Act of 1980 (P.L. 96-366; 16 U.S.C. §2901 et seq.; FWCA)
- Migratory Bird Treaty Act of 1918 (16 U.S.C. §703 et seq.; MBTA).
- National Environmental Policy Act 1969 (42 U.S.C. §4321 et seq.; NEPA).
- Environmental Impact Analysis Process (32 CFR Part 989).
- National Historic Preservation Act of 1966 (54 U.S.C. §300101 et seq.; NHPA).
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. §3001 et seq.; NAGPRA).
- Rivers and Harbors Act of 1899 (33 U.S.C. §401 et seq.;).
- Sikes Act of 1960 (16 USC 670a-670o, 74 Stat. 1052; Sikes Act).
- Presidential Memorandum—Creating a Federal Strategy to Promote the Health of Honey Bees and other Pollinators
- DoDI 4715.03, Natural Resources Conservation Program, 18 March 2011 (**DoDI 4715.03**).
- DoDI 6055.06, DoD Fire and Emergency Services Certification Program, 21 December 2006 (**DoDI 6055.06**).
- AFPD 32-70, Environmental Quality, 20 July 1994 (AFI 32-70).
- AFI 32-2001, Fire Emergency Services Program, 24 February 2014 (AFI 32-2001).
- AFI 32-7062, Comprehensive Planning, 12 August 2010 (AFI 32-7062).
- Unified Facilities Criteria (UFC) 3-201-02, Landscape Architecture

These procedures call for site specific and interdisciplinary analysis of the effects of each action and require consultation with pertinent agencies, including but not limited to the U.S. Fish and Wildlife Service (USFWS), Oklahoma State Historic Preservation Office (SHPO), Oklahoma Department of Wildlife Conservation (ODWC), Oklahoma Department of Environmental Quality (ODEQ), Oklahoma Forestry Services (OFS), and U.S. Army Corps of Engineers (USACE).

The procedures and policy for performing an environmental impact analysis are documented in 32 CFR Part 989. The AF uses Request for Environmental Impact Analysis (AF Form 813) to document the need for environmental analysis or for certain categorical exclusion (CATEX) determinations for proposed actions. This form is retained with the Environmental Assessment (EA) or Environmental Impact Statement (EIS).

All prescribed fires, mechanical fuels treatments and chemical fuels treatments must comply with NEPA requirements. Also, regardless of the NEPA type, all project NEPA copies need to be

placed within the project documentation file. A CATEX has been issued for prescribed burning on Tinker. Consult with the Installation NEPA Coordinator for more details.

At a minimum, NR projects including prescribed fire and mechanical fuels treatments will be proposed on Base Civil Engineering Work Request (AF Form 332) and evaluated by the installation NEPA manager to determine if more advanced environmental analysis is warranted.

NEPA analysis is not required for wildfires because wildfires are unplanned events. Suppression activities are covered by a CATEX from NEPA, though 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.

Smoke management on TAFB will follow recommendations of the latest edition of the NWCG PMS 420-4/NFES 1279, *Smoke Management Guide for Prescribed Fire and Wildland Fire 2001 Edition*, December 2001 (PMS 420-4).

Individual Prescribed Fire Plans (PFP) 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

3. WILDLAND FIRE MANAGEMENT

3.1 FUEL TREATMENT HISTORY

3.1.1 Prescribed Fire History

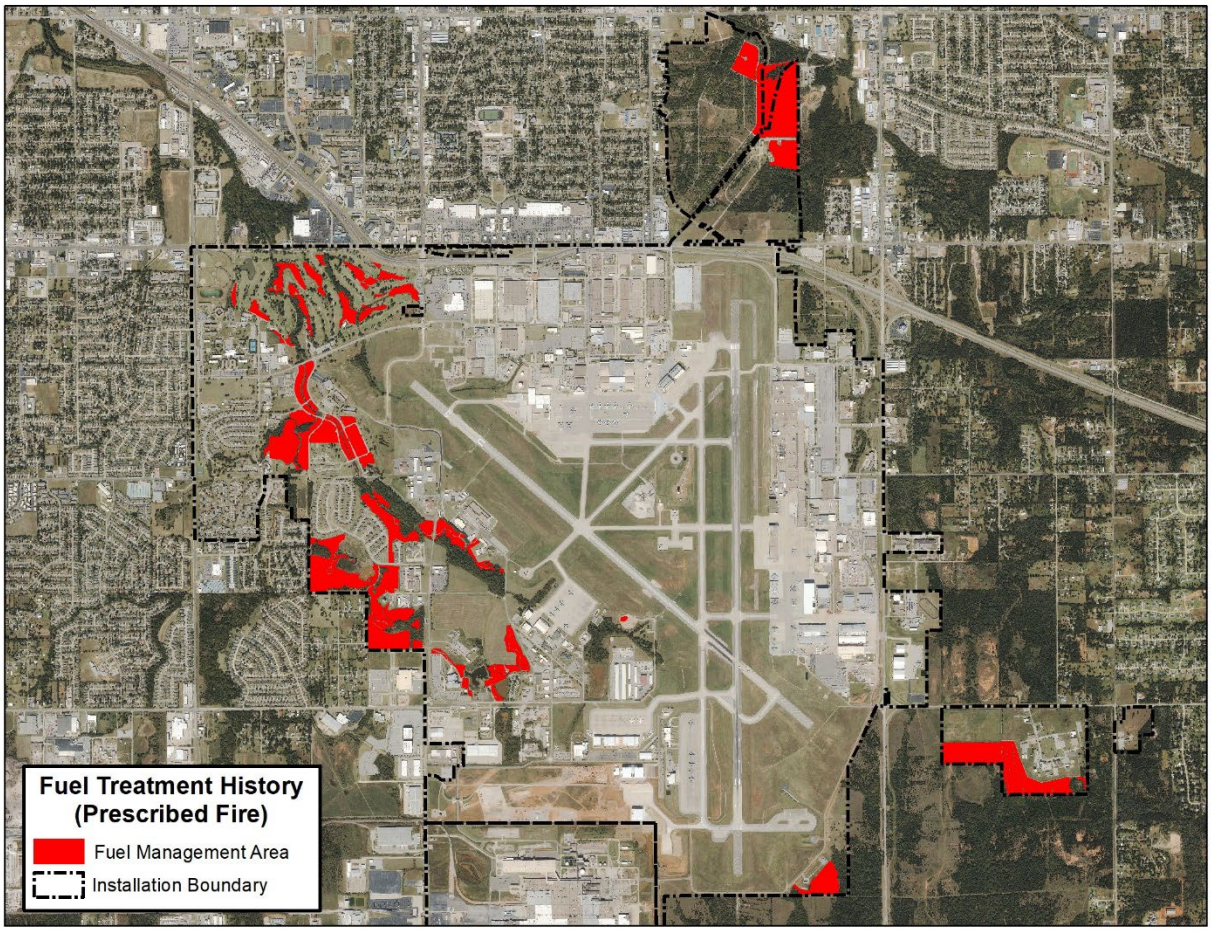
Prescribed fires on TAFB are used to manage native plant communities, to prevent wildfires, protect government property, minimize military mission disruptions, and to manage horned lizard and other wildlife habitat. Tinker's prescribed fire history can be found on Table 3.1 and in Figure 3.1a.

Table 3.1: Prescribed Fire History

Year	Acres Burned
1999	10
2003	6
2010	16
2019	130
2020	200
2021	197
2022	23*

* Includes 8K cubic yards of stockpiled tree debris

Figure 3.1a Prescribed Fire History

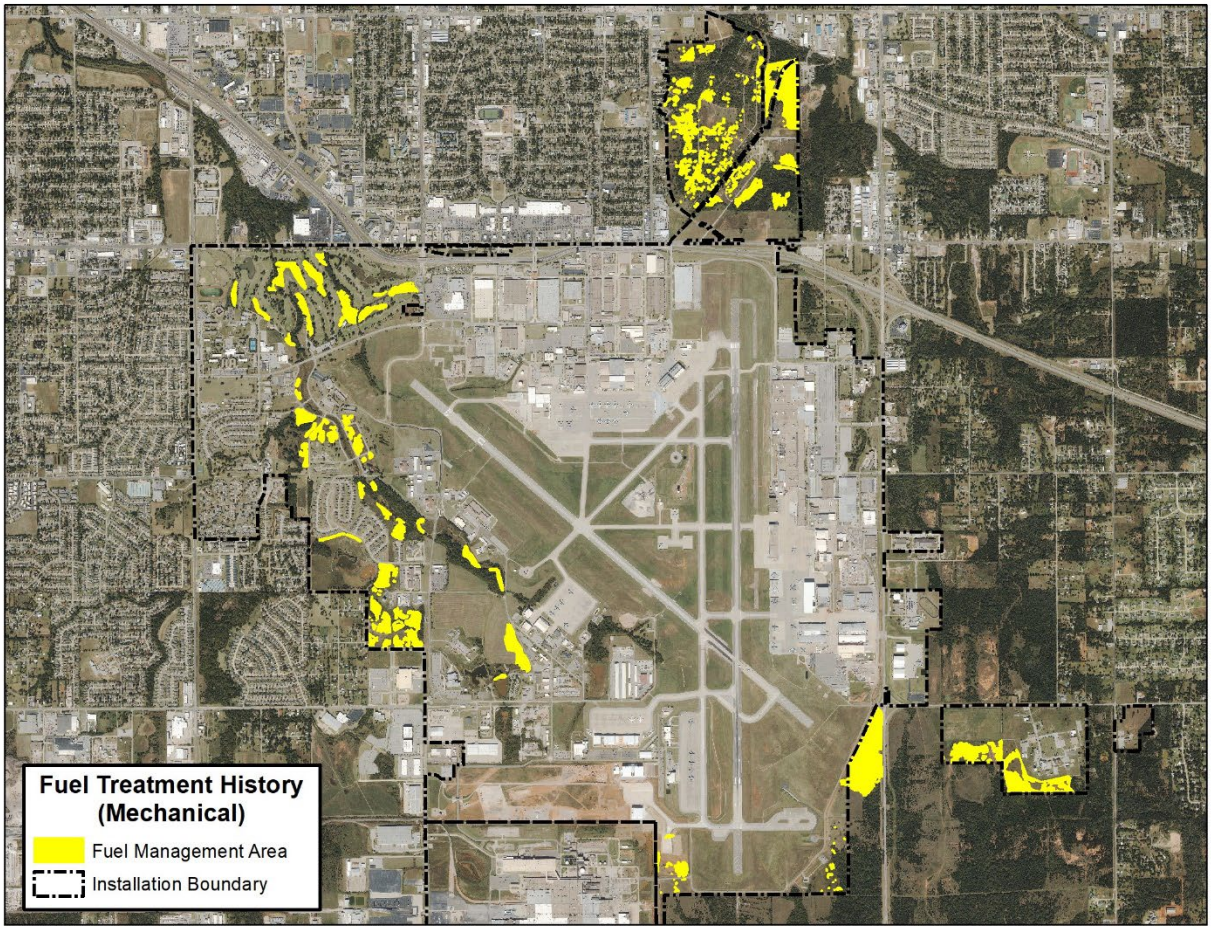


3.1.2 Mechanical History

Figure 3.1b shows areas that have been treated mechanically. Treatments include:

- Cedars or deciduous woodlands have been masticated (contract)
- Trees/shrubs have been flush-cut and stump-treated with herbicides and chipped (contract)
- Deciduous woodlands and deadfall have been masticated (WSM)
- Downed trees/tree limbs have been cut and piled for burning (WSM)

Figure 3.1b Mechanical Treatment History



3.2 WILDLAND FIRE MANAGEMENT PARTNERSHIPS

Tinker AFB utilizes partnerships for both the implementation of fuels reduction activities, as laid out in the INRMP, and in assisting with the suppression and response to wildfire incidents. Without these partnerships, wildland fire could have the potential to hinder the overall objectives and mission of the installation. Historically, Tinker has partnered with the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) to conduct

burns. More recently, the base has partnered with the United States Fish and Wildlife Service's (USFWS) Wichita Mountains Wildlife Refuge and the AFWFB.

3.2.1 Internal

Tinker AFB NR efforts are aided by the following partnerships within TAFB and the 72 ABW:

- **Air Force Civil Engineer Center (AFCEC)** - provides technical expertise to assist base level NR management.
- **Air Force Wildland Fire Branch (AFCEC/CZOF)** - provides technical and operational support to installations for a wide range of wildland fire related products and services.
- **TAFB Fire & Emergency Services (FES) -** provides prescribed burn assistance (if NWCG qualified), incident command, and primary wildland firefighting response force.
- **TAFB Public Affairs Office (72 ABW/PA)** – interfaces between 72 ABW, the media, and civilian groups to disseminate environmental and educational information.
- **Installation Support Section (ISS) Staff** – AFCEC/CZOM personnel who provide support to base level natural resources management through expert advice and management recommendations, as well as the evaluation and support of projects developed to directly support NR management.

3.2.2 External

Tinker AFB has external partnerships to provide guidance for NR and wildland fire activities on TAFB, including:

- **Fire Departments (FDs) and Volunteer Fire Departments (VFDs)** - provide mutual aid for wildfire response and suppression.
- **Oklahoma Forestry Services (OFS)** – A state agency, a division of the Oklahoma Department of Agriculture, Food and Forestry (ODAFF), the primary agency responsible for the suppression of wildfires in all 77 counties.
- **Oklahoma Department of Wildlife Conservation (ODWC)** – A state agency that manages Oklahoma's fish and wildlife resources and habitat.
- **U.S. Army Corps of Engineers (USACE)** - a federal agency responsible for permitting and management of activities involving riparian areas.
- **U.S. Department of Agriculture (USDA) Wildlife Services** – provides technical assistance regarding BASH and wildlife issues.
- **USDA Natural Resources Conservation Service (NRCS)** – provides technical assistance for natural resources and agricultural processes.
- **U.S. Fish & Wildlife Service (USFWS)/ Wichita Mountains Wildlife Refuge** - a federal agency providing oversight and guidance for natural resources activities that have a potential to affect terrestrial and select marine resources, especially those protected under the ESA.

Additionally, TAFB maintains memoranda of understanding (MOU) and mutual aid agreements (MAA) for wildfire suppression with the following entities:

- Choctaw, Oklahoma FD
- Del City, Oklahoma FD
- Midwest City, Oklahoma FD
- Oklahoma City, Oklahoma FD

MOU/MAAs can be found in Appendix 2.1.

3.3 WILDLAND FIRE FUEL MANAGEMENT UNITS (FMU)

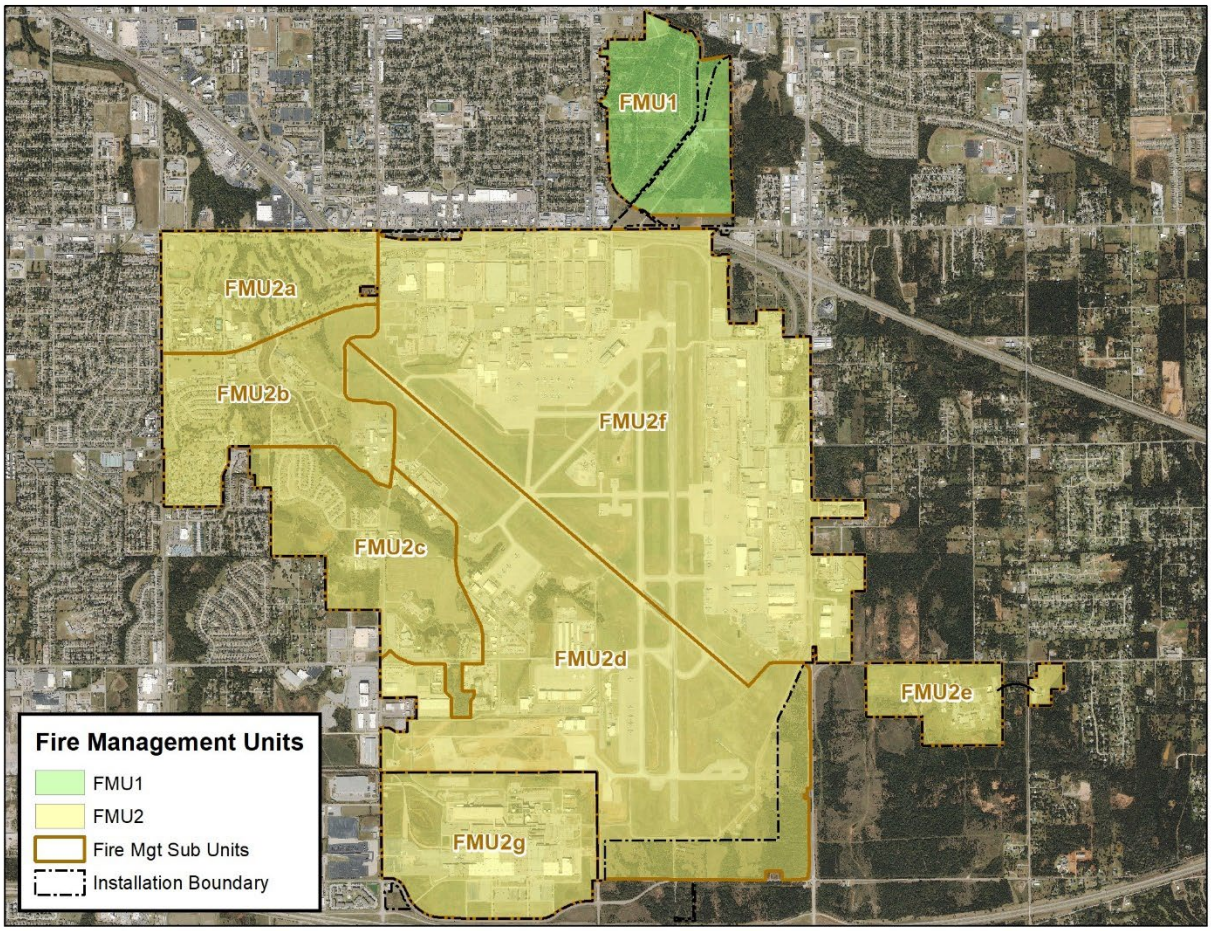
Fire Management Units (FMUs) are areas defined by similar overall strategic fire management objectives with consideration for specific (or dominant) constraints, requirements, and guidelines for implementation. Unique characteristics (such as fuels, topography, and natural resources concerns) are also considered and depicted graphically when appropriate. The burn units have been identified and can be seen in Figures 3.3-3.10.

FMUs on TAFB are listed in Table 3.2. A map of TAFB FMUs can be found in Figure 3.2.

Table 3.2: List of TAFB FMUs

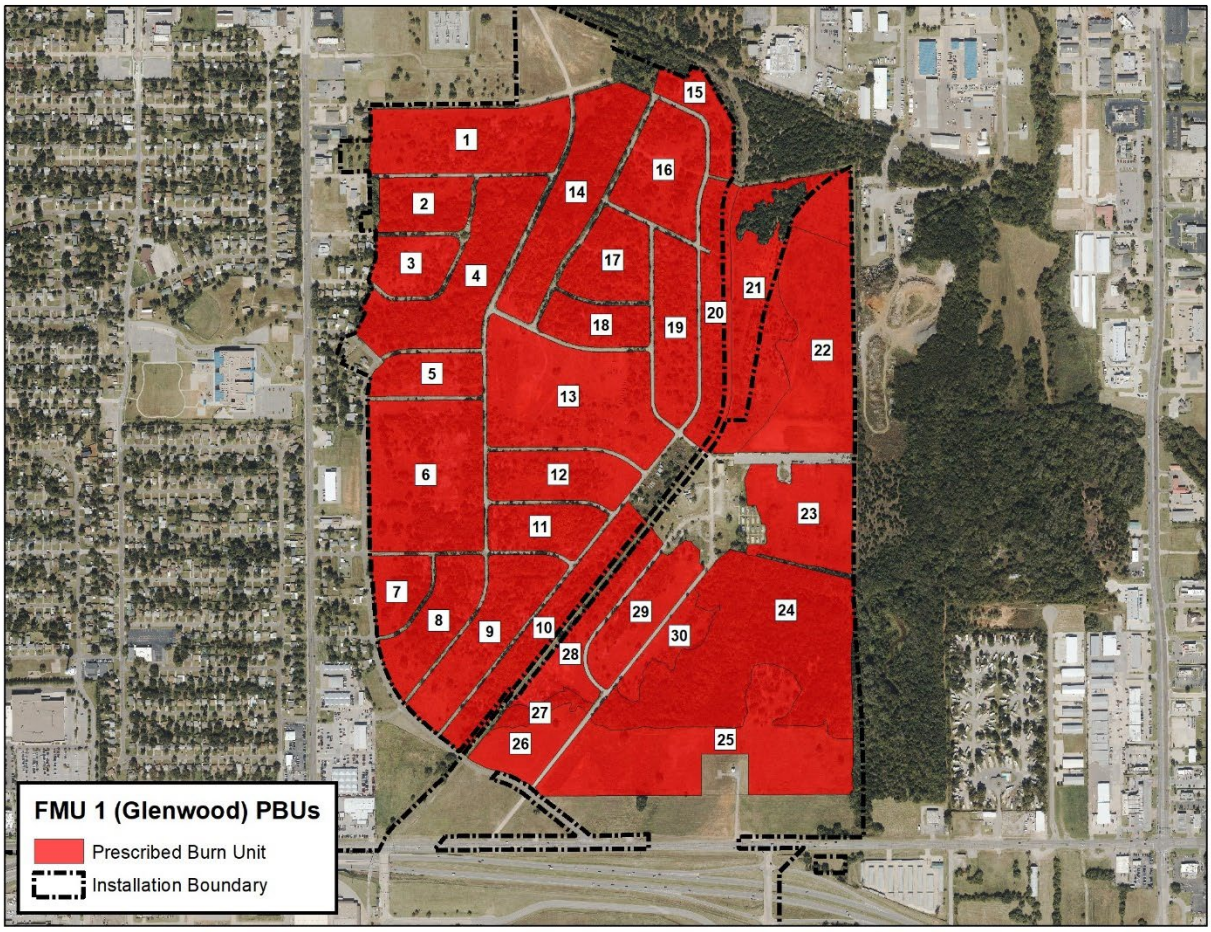
No.	FMU Name	Response to Wildfire	Acres (Treatable)	Treatment type	Fuel Models
1	FMU 1 (Glenwood)	Full Suppression	280 (265)	Mech and RX	GR2, GS1, SH2, TL2, TL6
2	FMU 2 (Golf Course, Housing Restoration, Urban Greenway, North Airfield, South Airfield, CEIG/Gator, B-9001 Area)	Full Suppression	5,585 (1760)	Mech and RX	GR1, GR2, GS1, TL2, SH2, TL6

Figure 3.2: TAFB FMUs



3.3.1 FMU 1: Glenwood

Figure 3.3 FMU #1: Prescribed Burn Units



- Wildland FMU Descriptions
  FMU 1 consists of the relatively undeveloped areas in the Glenwood unit. This is the largest wildland area on the installation. Remnant native prairies, woodlands, and transitional residential vegetation (i.e., residential houses were removed around 1970, and the vegetation was permitted to grow with no maintenance) make up this unit. While some structures exist in the center of the unit, the majority is uninhabited and therefore has few values to protect. Prescribed fire is recommended in FMU 1. A map of TAFB FMU 1 prescribed burn units (PBUs) can be found in Figure 3.3.

- Wildland FMU Goals and Objectives
  Specific objectives for FMU 1 include:
  - Achieve a program where firefighters and public safety are the highest priorities in every fire management activity.
  - Use prescribed fire wherever appropriate as a tool to meet resource management objectives.

- In areas where the Texas horned lizard exists, manage with small patches of prescribed fire (i.e., leave some unburned areas to sustain lizard population).
- Reduce the abundance of undesirable plant species base-wide and improve and sustain vigor in native flora and fauna populations.
- Reduce the fuel load for wildfires.
- The objectives of WUI fire management are:
  - To facilitate on- and off-base (i.e., properties adjacent to TAFB) fire prevention and protection and to minimize fire loss and damage to structures, other human development, and wildland resources.
  - To prevent a structure fire from spreading into wildland fuels.
  - To encourage facility or property owners to take an active role in establishing and maintaining their own fire prevention and safety measures in the WUI.

- Wildland FMU Planned Fuels Treatments

  Urbanization on TAFB has turned native systems into many areas with non-native plant species. Some, such as eastern red cedars (*Juniperus virginiana*), pose a wildfire threat to the installation. Mastication of eastern red cedars in FMU 1 has been ongoing and is planned for future management in combination with prescribed fire. Figure 3.1 shows a map of fuel treatment history on TAFB.

- Wildland FMU Values to Protect
  - Human safety.
  - TAFB buildings (although buildings are adjacent to pavement or bare ground).
  - Powerline poles/boxes.
  - Fences
  - Native plant community stability (e.g., prevent native grasslands from transitioning into woodlands/forest).
  - Native ecosystem health
  - Adjacent lands (lands to the north and east of the FMU 1 contain volatile fuels).
  - WUI areas (an off-base neighborhood is adjacent to the west side of FMU 1). A map of WUI areas can be found on Figure 3.11.

- Wildland FMU Safety Considerations

  Safety hazards in FMU 1 include:

  - Entrapment in areas with concertina wire
  - Heat stress
  - Traffic and public safety
  - Power lines
  - Military training and range operations
  - Smoke impacts to aviation and nearby populations

- Wildland Fire Risk Mitigation Strategies
  See Table 3.2

3.3.2 FMU 2: Urban Greenway, Housing Restoration, North Airfield, South Airfield, B-9001, CEIG/Gator, and Golf Course

- Wildland FMU Description
  FMU 2 consists of the main area of the installation, which contains multiple buildings, the runway, a golf course, housing units, and outdoor recreation areas. Within FMU 2 are seven (7) burn units, the Golf Course (2a), the Housing Restoration (2b), Urban Greenway (2c), South Airfield (2d), CEIG/Gator (2e), North Airfield (2f), and B-9001 (2g). Each of these units contains smaller recommended burn patches.

3.3.2.1 FMU 2a Golf Course

The Golf Course Unit consists of 24 mixed native grass PBUs totaling about 26 acres. A northwest wind would be ideal for these burn units to keep smoke away from the major highway to the north and highly populated areas to the north and west. A map of the golf course units can be found in Figure 3.4.

3.3.2.2 FMU 2b Housing Restoration

The Housing Restoration Unit is comprised mostly of restored native mixed grass prairie/savannah with some woodland areas. It has multiple PBUs to facilitate more manageable burns on the WUI. This site also requires much coordination due to heavily trafficked roadways that traverse the unit. A map of the area can be found in Figure 3.5.

3.3.2.3 FMU 2c Urban Greenway

The urban greenway contains wildland areas very close to housing units and other structures. In some areas, large fuel loads close to houses pose a hazard. A permanent 20-foot mowed line is recommended in areas immediately adjacent to houses. Mechanical treatment is the desired method of management in heavily timbered areas, as in many areas of overgrown timber understory on TAFB there is not enough fine fuel to carry a fire.

The FMU 2 has multiple burn units. The urban greenway is broken up into three areas, Reserve 1, Reserve 2, and Reserve 3. The following is a brief description of each burn unit with FMU 2:

- **Reserve 1** of the Urban Greenway Unit is subdivided into Reserve 1 West and Reserve 1 East and is approximately 56 acres of wooded creek bottom and native prairie. About 20 acres of grassland can be managed with fire. A housing unit and child development center border the west and south sides of Reserve 1 West. Extra caution should be taken to keep heat and embers away from vinyl fences in this area. A southwest wind, with conditions providing good smoke lift, would be best for safety and smoke management for Reserve 1 West. The wooded area has a potential to burn longer due to higher diameter fuel. A map of the Reserve 1

area of the Urban Greenway Unit can be found in Figure 3.6. Reserve 1 East contains grassland and woodland areas. It is bordered by timber on the SSW side, and structures on the NNE sides. A northwest wind, with conditions providing good smoke lift, would be ideal for these units.

- **Reserve 2** of the Urban Greenway Unit is subdivided into Reserve 2 North and Reserve 2 South. Reserve 2 North is comprised of restored native mixed grass prairie bordered by deciduous and evergreen woodland areas. Reserve 2 South is primarily deciduous woodlands. The unit is divided into several PBUs to facilitate safe burning around FAM Camp and other WUI areas. For smoke management, a south, southwest, or southeast wind would be best on Reserve 2 North and a north wind on Reserve 2 South such that smoke moves away from the recreational vehicle campground and mini-mall facility. Figure 3.7
- **Reserve 3** of the Urban Greenway Unit is approximately 78 acres (57 acres are actually within the Urban Greenway with 21 acres outside, but adjacent to, the Greenway). To simplify unit designations on this part of the base, these 21 acres are included within this Urban Greenway unit). The area contains four ponds, walking trails, and native prairie/woodland areas. It also includes a 10-acre remnant native mixed grass prairie. The Oklahoma Biological Survey designated a portion of Reserve 3 as a registered natural area due to this remnant prairie and the presence of the Texas Horned Lizard. This area has been broken up into many small PBUs to break up the size of the burns in order to protect the Texas horned lizard and make the burns more manageable in an urban setting. A northwest, west, or south wind with conditions providing good smoke lift, would be best for smoke management for this area. There are several residential houses to the north, west, and south that need to be considered when planning a prescribed fire in this area. A map of the southwest area of the Urban Greenway Unit can be found in Figure 3.8.

3.3.2.4 FMU 2d South Airfield

The South Airfield Unit is comprised primarily of mowed grass maintained year-round at 7-14 inches high to reduce bird attraction. The south and east boundaries of the South Airfield Unit also have native cross timbers habitat (remnant native mixed grass prairie and post oak-blackjack oak woodland areas). Currently, there are three PBUs in the South Airfield Unit; all are outside the fenced airfield. A north wind would be ideal for these burn units to keep smoke away from the airfield. A map of the South Airfield Unit can be found in Figure 3.9.

3.3.2.5 FMU 2e GEIG/Gator

The CEIG/Gator Unit is comprised of native mixed grass prairie/savannah. Currently, three PBUs are designated on this unit. A north wind would be preferred on this site to keep smoke moving away from occupied buildings on the CEIG campus. Figure 3.10.

3.3.2.6 FMU 2f North Airfield

The North Airfield Unit is comprised of mowed grass maintained year-round at 7-14 inches high to reduce bird attraction. Currently there are no PBUs in the North Airfield

Unit. A north wind would be ideal for this burn unit to keep smoke away from dense industrial and administration areas.

3.3.2.7 FMU 2g B-9001

The B-9001 Unit is comprised of land out-leased for haying. Currently, no PBUs have been designated for this unit. A north wind with good lift would be ideal for this burn unit to keep smoke away from the industrial complex which borders the north side of the site and to ensure smoke clears Interstate 240 to the south.

- Wildland FMU Goals and Objectives

  Specific objectives for ALL FMU 2 include:

  - Achieve a program where firefighters and public safety are the highest priorities in every fire management activity.
  - Use prescribed fire wherever appropriate as a tool to meet resource management objectives.
  - Reduce the abundance of undesirable plant species base-wide and improve and sustain vigor in native flora and fauna populations.
  - Reduce the fuel load for wildfires.
  - In areas where the Texas horned lizard exists, manage with small patches of prescribed fire (i.e., leave some unburned areas to sustain lizard population).
  - The objectives of WUI fire management are:
    - To facilitate on- and off-base (i.e., properties adjacent to TAFB) fire prevention and protection and to minimize fire loss and damage to structures, other human development, and wildland resources.
    - To prevent a structure fire from spreading into wildland fuels.
    - To encourage facility or property owners to take an active role in establishing and maintaining their own fire prevention and safety measures in the WUI.
  - Wildland FMU Planned Fuels Treatments
    - Cedar felling and cedar mastication have been done in FMU 2. These areas are now being managed with prescribed fire.

- Wildland FMU Values to Protect
  - Human safety.
  - TAFB buildings (although buildings are adjacent to pavement or bare ground).
  - Powerline poles/boxes.
  - Fences.
  - Landscape aesthetics in sensitive areas such as distinguished visitor (DV) routes and golf course out-of-play areas that have been converted to native grasslands
  - Native plant community stability (e.g., prevent native grasslands from transitioning into woodlands/forest.

- Native ecosystem health (e.g., plant vigor, Texas horned lizard population)
- Trail exhibits
- Deck and boardwalk.
- WUI areas (installation housing and structures are located throughout FMU 2; notification of prescribed burns and caution during burns needs to be taken).

- Wildland FMU Safety Considerations
  Safety hazards in FMU 2 include:
  - Firefighter and public safety are the first priority in every wildland fire management activity. The WFMP will ensure that installation-specific safety and emergency operations protocols are identified to mutual aid crews and in prescribed burning plans.
  - Heat stress
  - Traffic and public safety
  - Power lines
  - Military training and range operations
  - Smoke impacts to aviation and nearby populations

Figure 3.4 FMU 2a Golf Course

Figure 3.5 FMU 2b Housing Restoration

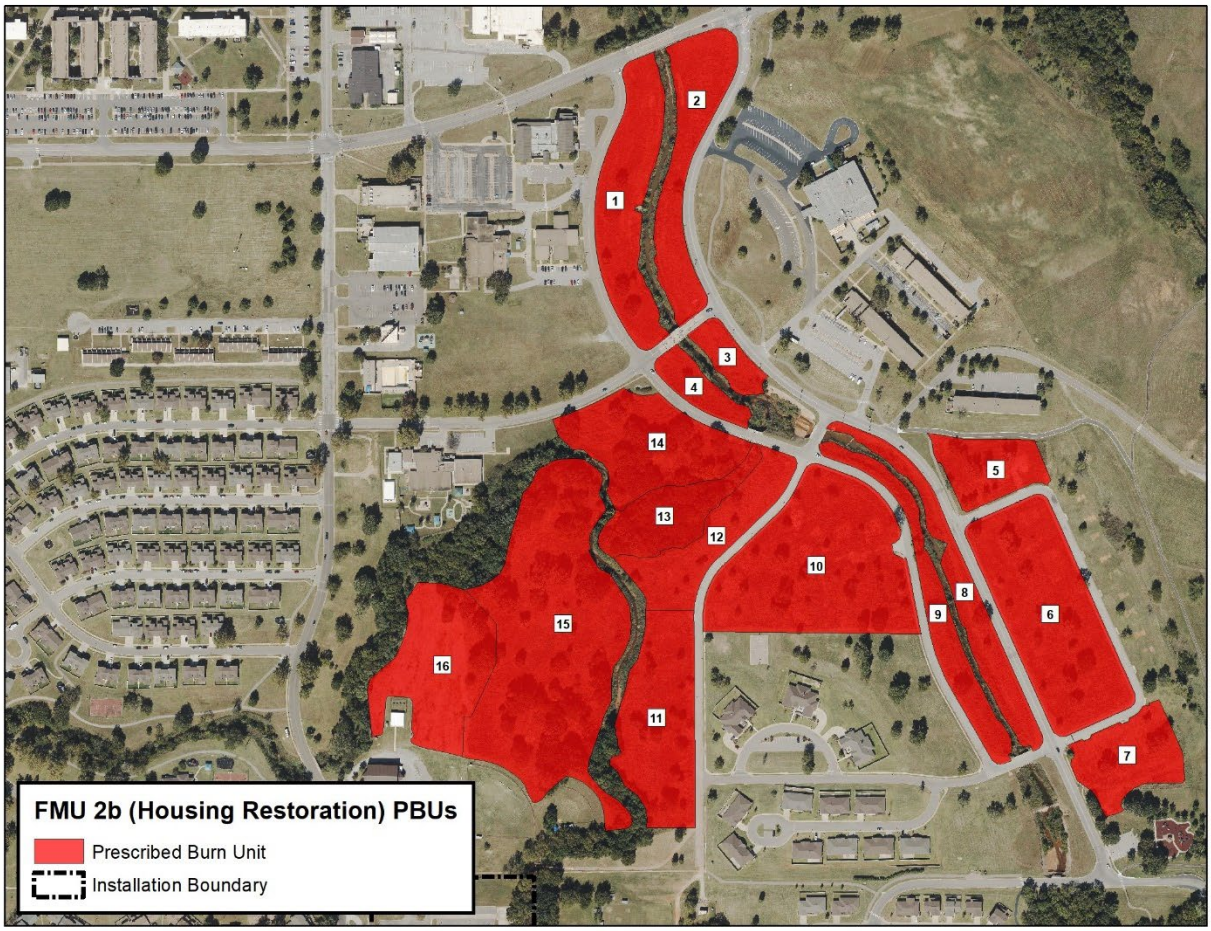


Figure 3.6 FMU 2c Urban Greenway Reserve #1

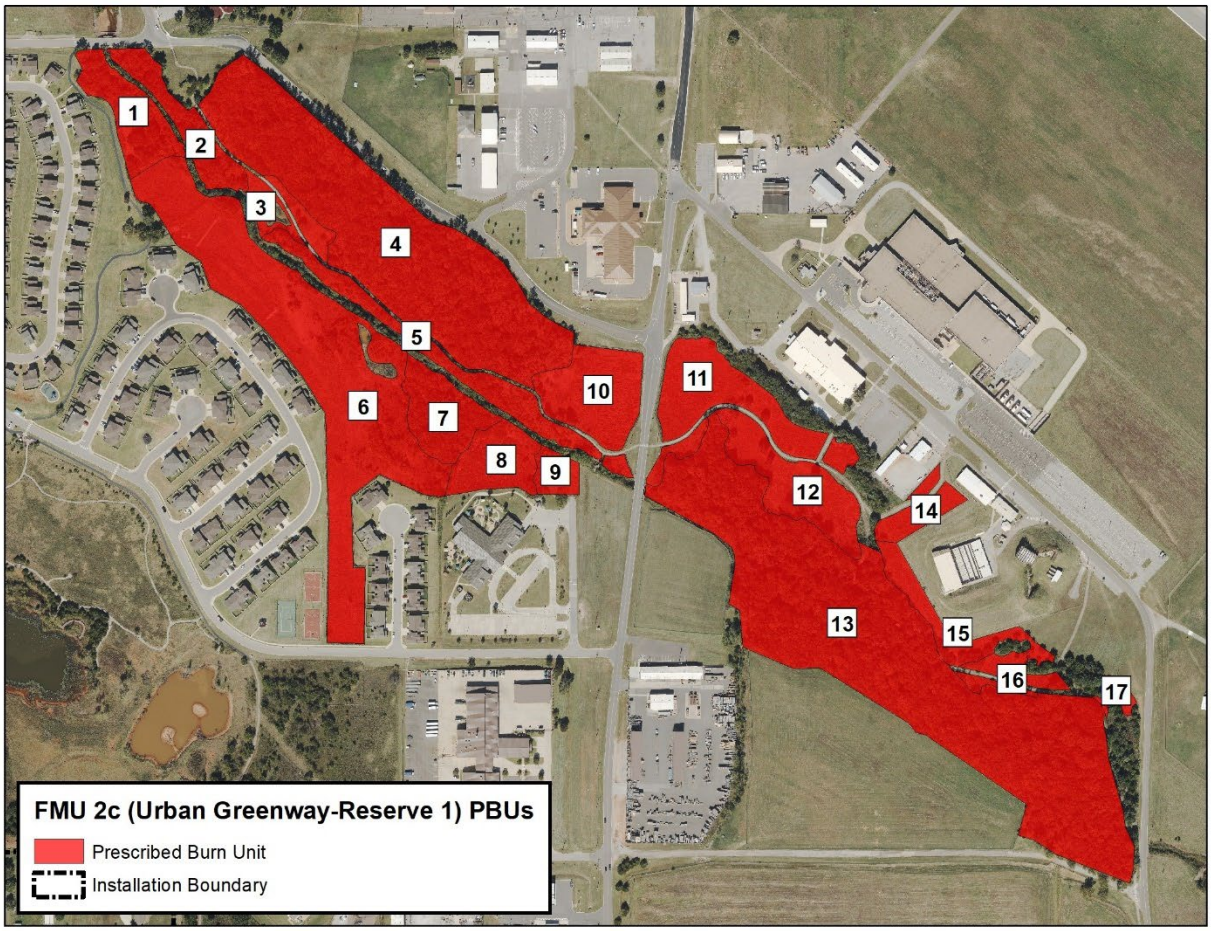


Figure 3.7 FMU 2c Urban Greenway Reserve #2

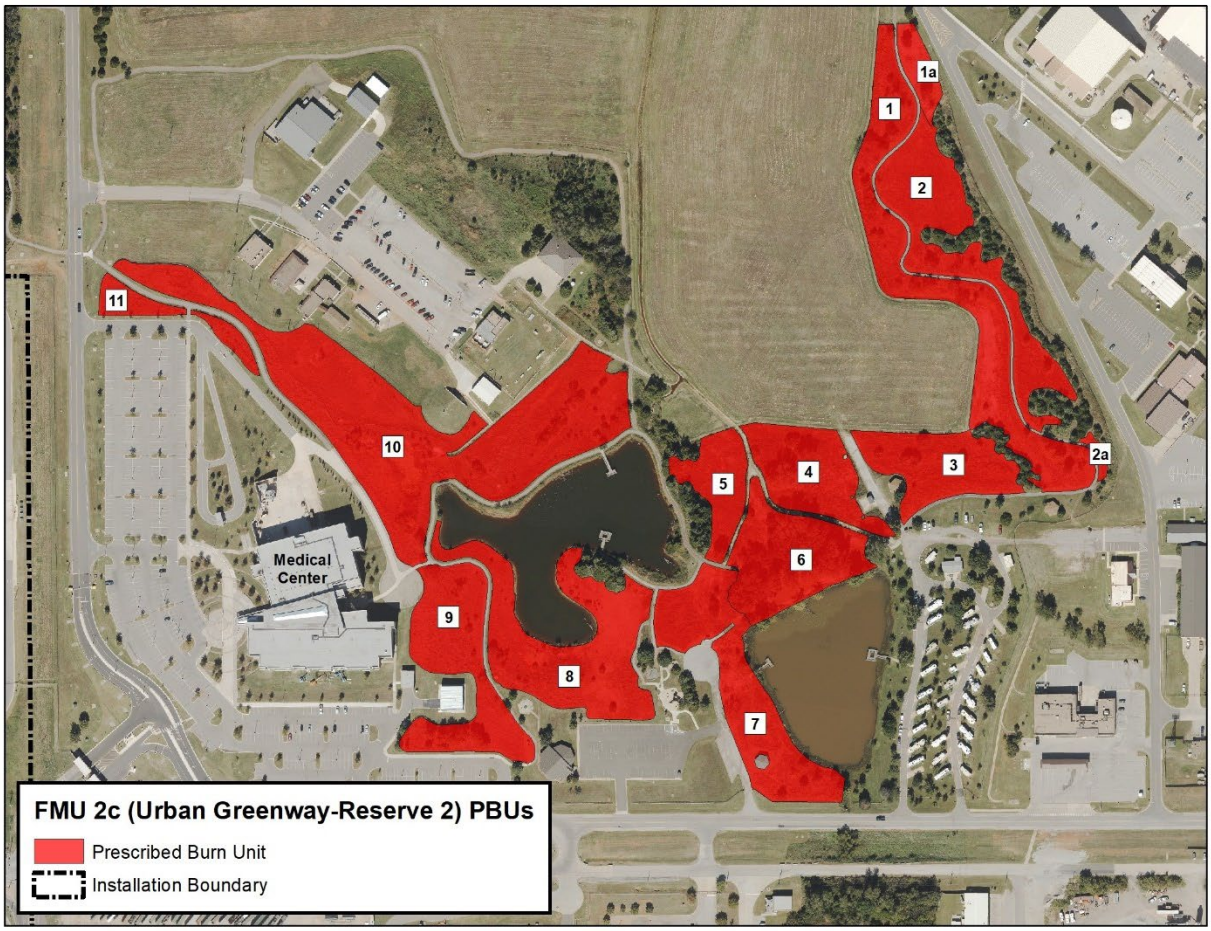


Figure 3.8 FMU 2c Urban Greenway Reserve #3

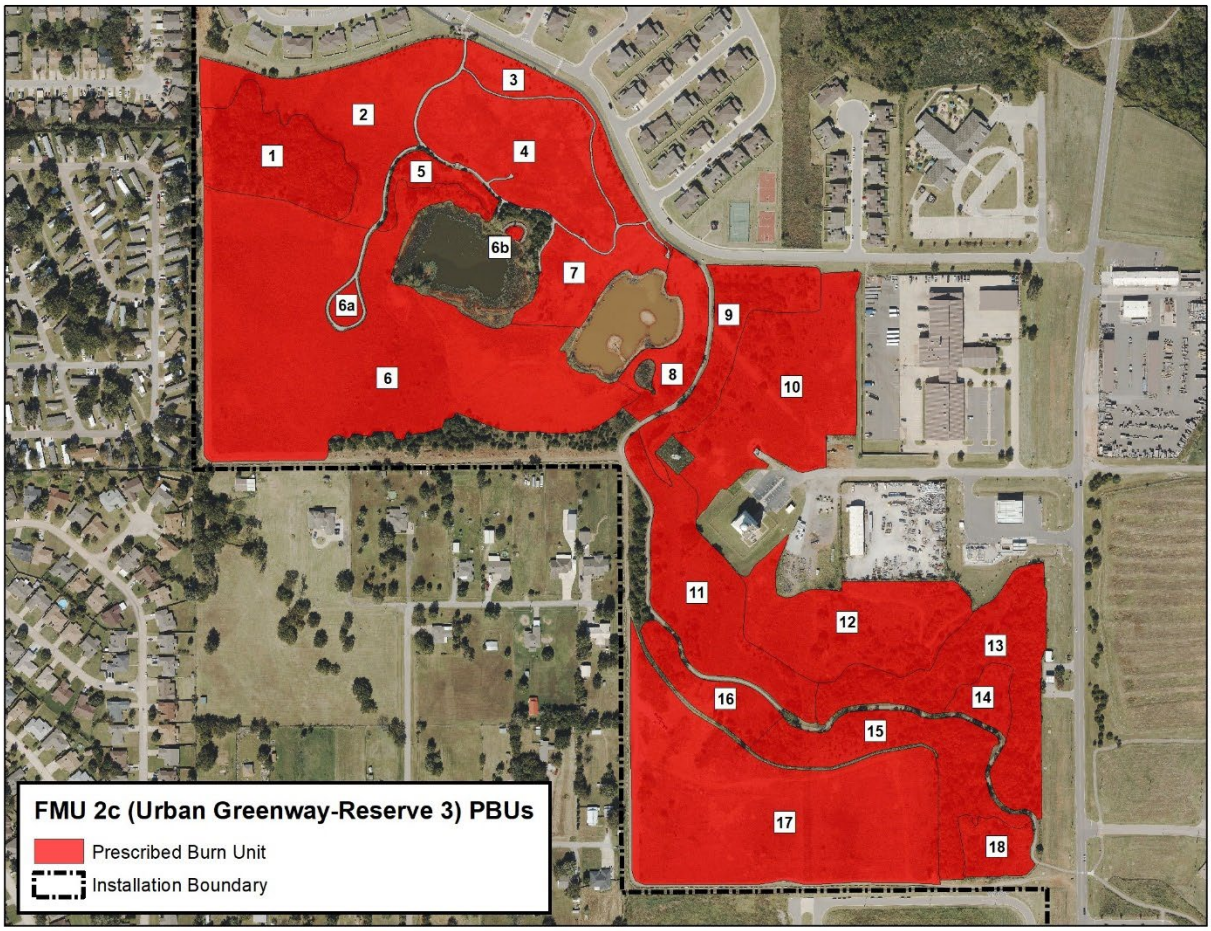


Figure 3.9 FMU 2d South Airfield

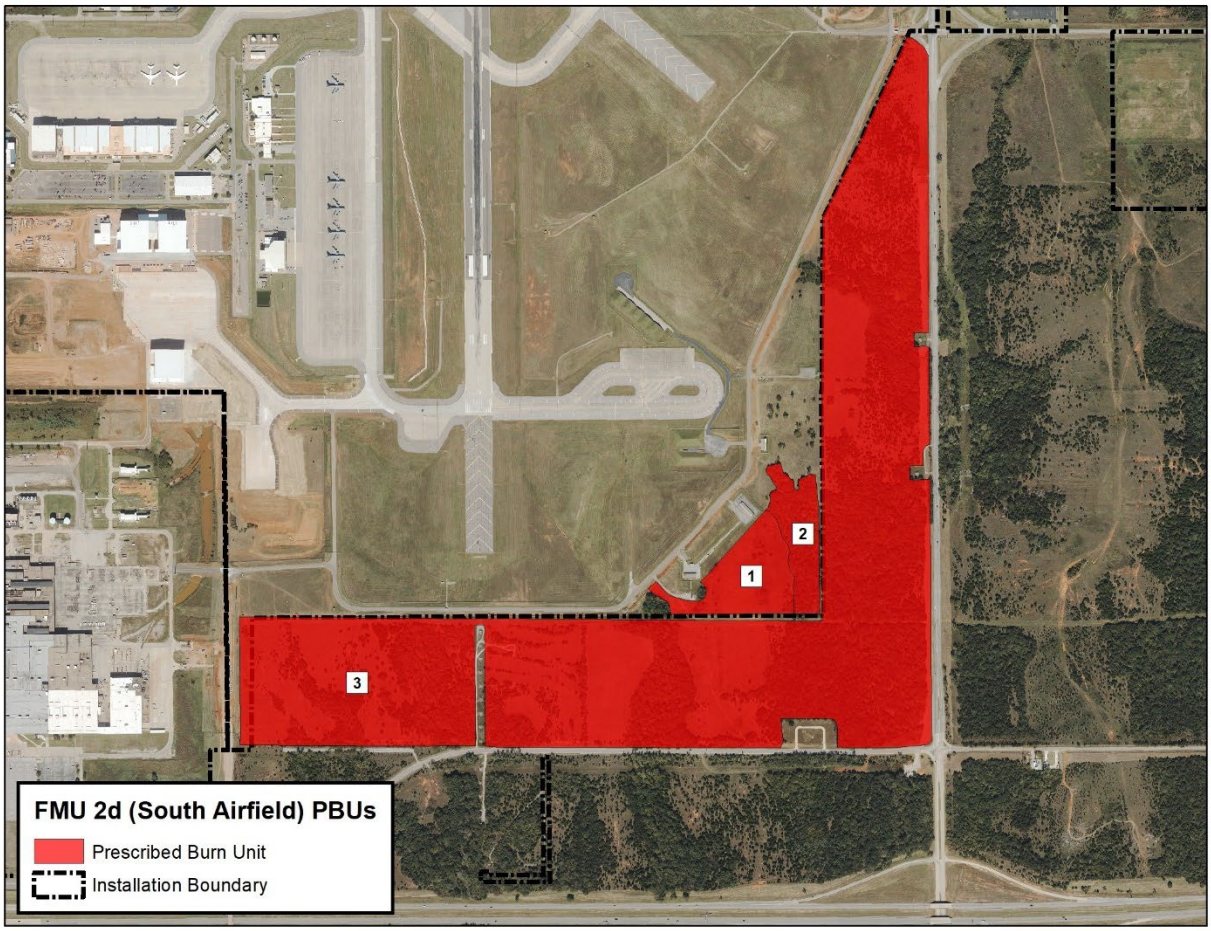


Figure 3.10 FMU 2e CEIG/Gator

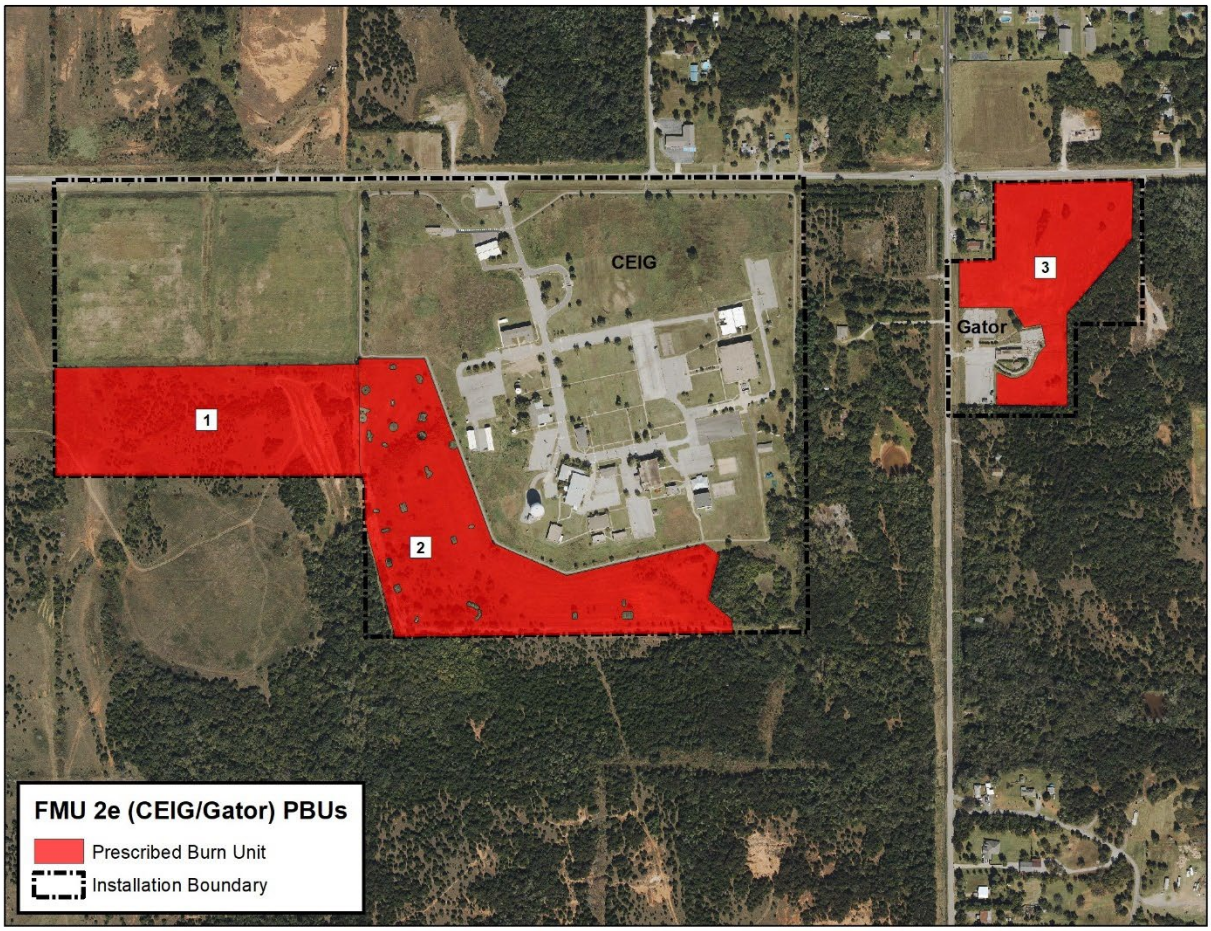
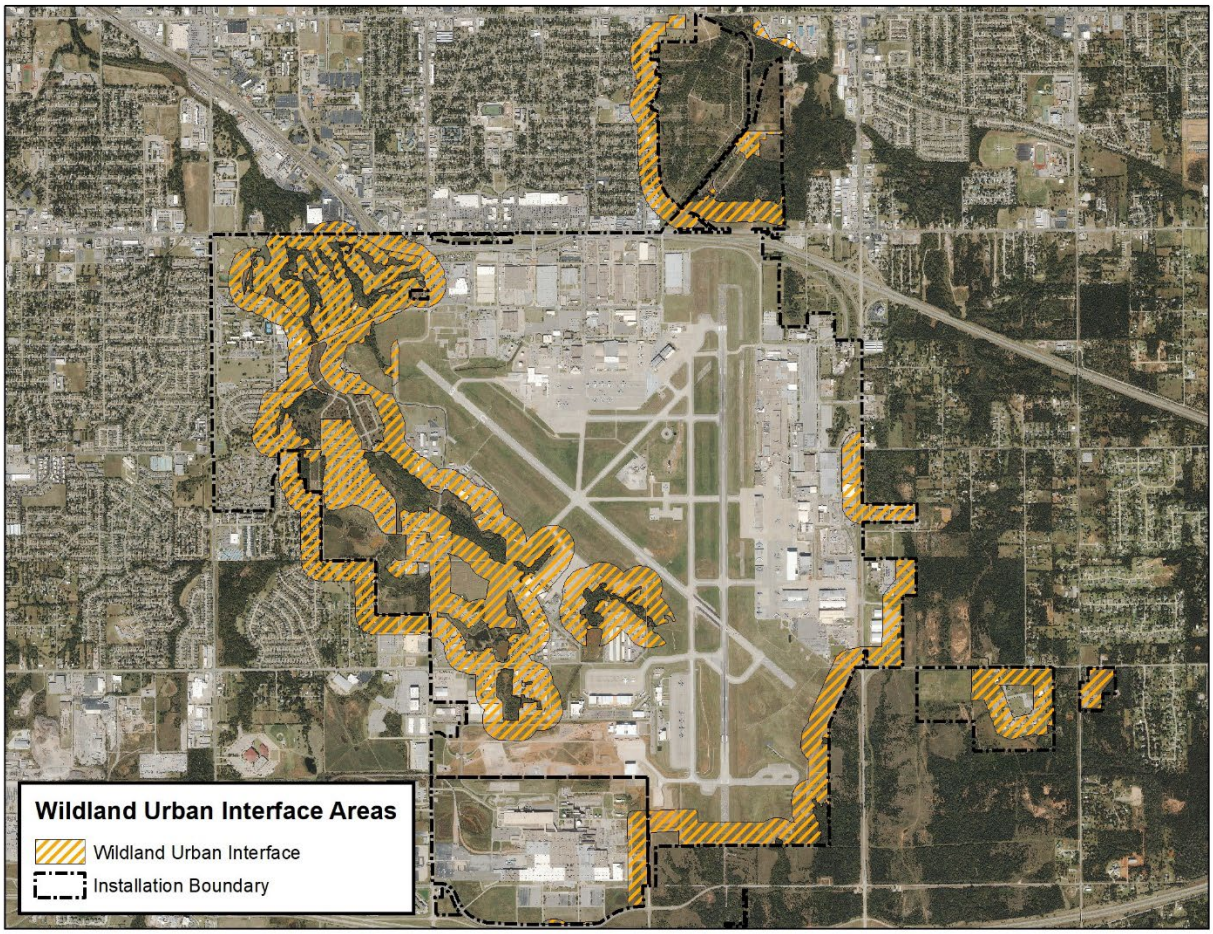


Figure 3.11: WUI Areas on TAFB



- Wildland FMU Fire Risk Mitigation Strategies
  Overall wildfire risk on TAFB is low, though not non-existent. 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 installation to reduce the probabilities of a wildfire spreading to the structures in the developed areas of the installation. Following (Table 3.3) are steps that can be taken to reduce the wildfire risk in these areas:

Table 3.3: Recommended Wildfire Risk Mitigation Strategies

Task	Responsible Party	Recommended Schedule
Conduct routine maintenance of the firebreaks around the installation and the prescribed fire units.	CES/WSM	Every 1-3 years or as needed

A 10-foot mowed line on the inside of the wooden fence, and 20-foot-wide mowed line on the outside of the vinyl residential fences is recommended. 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 six (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	PA/NR/FES	Annually
Keep vegetation under powerlines mowed	CES/WSM	Annually

3.4 MANAGEMENT OF PLANNED FUELS TREATMENTS

AFCEC/CZOF will primarily use the WSMs, in conjunction with NWCG-qualified and available installation personnel, to execute prescribed fire requirements in support of ecosystem management and mitigation of wildfire. Prescribed fire requirements at the installation will be prioritized with the NRM to meet management goals.

Tinker AFB will use a combination of fire and non-fire fuels treatments to meet natural resources objectives established in the INRMP. Fuels treatments will primarily be conducted to control invasive vegetative species, and thin forests where prescribed fire is not applicable and will have the secondary benefit of wildfire risk reduction.

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

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

Recommended mechanical fuels treatments will consist of cedar removal, as well as removing overgrown timber to allow fine fuels to grow to carry fire. Routine mechanical fuels treatments will also include maintenance of all mowed firebreaks, as well as annual vegetation maintenance extending out at least 30 feet from values to protect. A guide to vegetation clearance standards around structures can be found in the Firewise Ember Threat and the Home Ignition Zone webpage. If new fire breaks are needed, they will follow previous disturbance where possible to minimize resource damage. A goal for prescribed fire on TAFB is to preserve native grasslands and reduce wildfire hazards. This will be accomplished by burning small patches on a 2-3 year burn interval in most units, although a 1-year interval may be used in select units.

Refer to Table 3.4 for projected fuels treatments on Tinker AFB for the next 5 years.

Table 3.4 Projected Fuel Treatment (5yr)

5-Year Fuel Treatment Table							
Category	**Project Name**	**Acres**	**Description**	**Estimated Completion**	**Project Source**	**Recurring Project**	**Driver**
RX Burn + Mechanical Fuels Treatment	- RX (All FMUs except FMU2f and FMU2g) - Mech Treat (FMU2d)	200 (RX) 5 (Mech Treatment)	Prairie & woodland restoration and maintenance; fuels reduction	FY 2023	WSM	Y – RX N – Mech Treatment	INRMP WFMP
RX Burn + Mechanical Fuels Treatment	- RX (All FMUs except FMU2f and FMU2g) - Mech Treat (FMU2d)	200 (RX) 5 (Mech Treatment)	Prairie & woodland restoration and maintenance; fuels reduction	FY 2024	WSM	Y – RX burn N – Mech Treatment	INRMP WFMP
RX Burn + Mechanical Fuels Treatment	- RX (All FMUs except FMU2f and FMU2g) - Mech Treat (FMU2d)	200 (RX) 5 (Mech Treatment)	Prairie & woodland restoration and maintenance; fuels reduction	FY 2025	WSM	Y – RX burn N – Mech Treatment	INRMP WFMP
RX Burn + Mechanical Fuels Treatment	- RX (All FMUs except FMU2f and FMU2g) - Mech Treat (FMU2d)	200 (RX) 5 (Mech Treatment)	Prairie & woodland restoration and maintenance; fuels reduction	FY 2026	WSM	Y – RX N – Mech Treatment	INRMP WFMP
RX Burn	RX (All FMUs except FMU2f and FMU2g)	200	Prairie & woodland restoration and maintenance; fuels reduction	FY 2027	WSM	Y	INRMP WFMP

3.4.2 Prescribed Fire Planning

Prescribed fire implementation 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 2017 (PMS 484 - Prescribed Fire Guide), which are available on the NWCG Website. This is to include debris burning.

All Prescribed Fire Planning will be coordinated through the JBSA WSM Lead. The approved NWCG Prescribed Fire Plan has been completed along with the complexity analysis by a qualified NWCG burn boss.

The PFP at Tinker will be:

- prepared and signed by a qualified NWCG burn boss within JBSA WSM
- reviewed and signed by an NWCG qualified technical reviewer
- reviewed and approved by Tinker's NR and FES
- approved and signed by the Agency Administrator. The Agency Administrator at Tinker is the WFPC.

Any proposed PFPs for burns in the controlled airfield area must be approved in advance by the Air Force Safety Center (AFSEC/SEFW) and TAFB Airfield Management.

The NRM will consult on all PFPs to ensure that all potential sensitive natural resources are identified and protected during the burn. Fire crews will be made aware of all sensitive resources within the prescribed fire units and will avoid driving through or otherwise disturbing these areas.

3.4.3 Prescribed Fire Operations

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

Cooperators, such as members of 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.
- All engines, tools, supplies, etc., will be checked.
- Burn Bosses will report to the Wildland Fire Program Coordinator by the day before the Burn Day.

- Public and media contacts will be completed as designated in the burn plan.
- Warning signs and/or road guards will be used to advise motorists of a prescribed fire in progress, especially if smoke could reduce visibility.
- Air Force roads adjacent to burn units will be closed temporarily as needed.
- Test fires will be used to assess holding capability and smoke dispersal. Weather forecasts for the Burn Day and the next two forecast periods will be obtained.
- Prescribed fires will not be ignited until all contingency forces are confirmed as being in the required status specified in the burn plan.

3.4.4 Prescribed Fire Conversion to Wildfire and Required Reviews

A prescribed fire, or a portion or segment of a prescribed fire, must be declared a wildfire by those identified in the plan with the authority to do so, when either or both of the following criteria are met:

- Prescription parameters are exceeded and holding and contingency actions cannot secure the fire by the end of the next burning period, or,
- The fire has spread outside the project area or is likely to do so, and the associated contingency actions have failed or are likely to fail and the fire cannot be contained by the end of the next burning period.

Immediate notification to dispatch, NRM, and AFCEC/CZOF will be required when a prescribed fire escapes control. All prescribed fires converted to wildfires must be investigated. After the incident is over, the process will focus on the "what" and not the "who" of what led to the conversion in the form of an After-Action Review (AAR). All basis for protocol for such an incident is based on the NWCG *Interagency Standards for Fire and Aviation Operations*.

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 NRM along with the WSM Lead will work with AFCEC/CZOF to determine fuels requirements and assist in forecasting funding needed to meet those requirements. Identification of the funding requirements to train and equip wildland fire management personnel ensures safe, effective, and cost-efficient operations in support of the WFMP. The WSM Lead, Assistant Fire Management Officer (AFMO) and AFCEC/CZOF will identify the appropriate sources of funding for wildland fire activities.

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.

3.8 VEGETATION/NATURAL MATERIALS BURNING

Vegetation burning may include the burning of debris from land clearing for construction, burning logging debris following timber harvest, or the burning of leaves and other yard waste at individual residences.

Vegetation burning for silvicultural activities, e.g., burning logging debris following timber harvest/prior to replanting, requires a written prescribed fire plan that meets interagency guidelines when being accomplished by federal employees.

A prescribed fire plan is required.

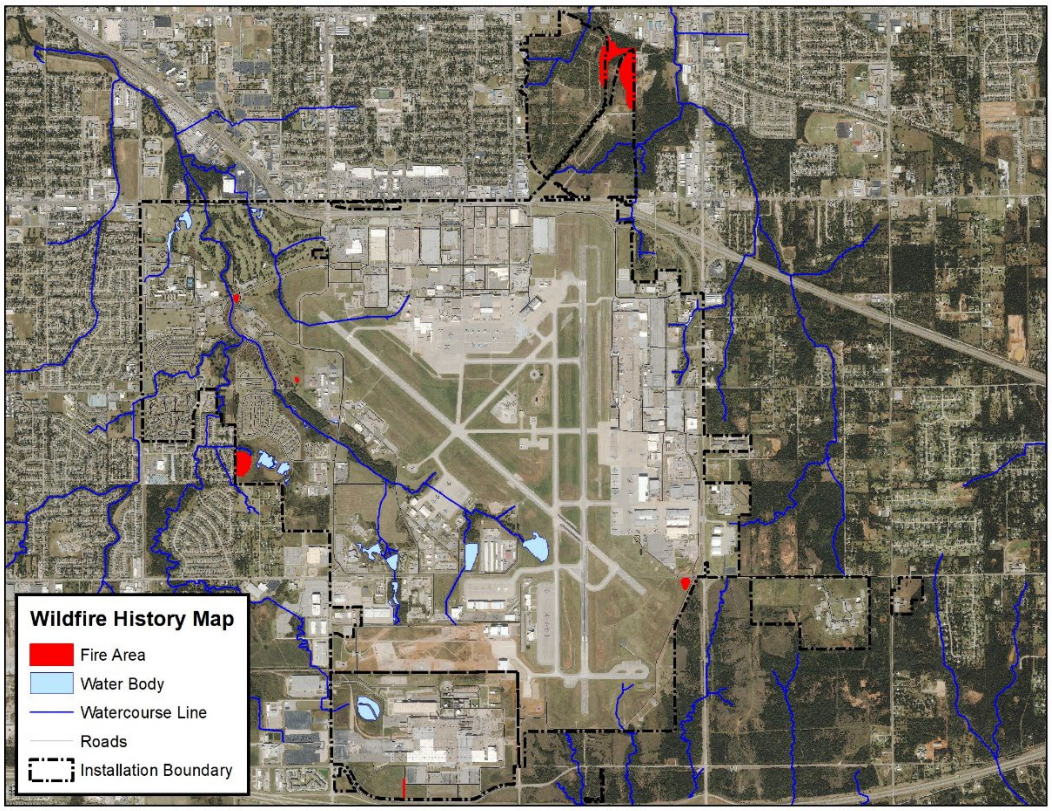
4. WILDLAND FIRE OPERATIONAL GUIDANCE AND WILDFIRE RISK MITIGATION

4.1 WILDFIRE PREVENTION

4.1.1 Wildfire History

Wildfires on TAFB have been relatively small, with the majority started by human ignition. Some have started on base, and some have started off base and come onto TAFB. Wildfire history on TAFB is shown in Figure 4.1.

Figure 4.1 Wildfire History on TAFB



4.1.2 Wildfire Occurrence

Two of the wildfires identified in Figure 4.1 were on or near the base boundary. Both appeared to be ignited by off-base sources, but the specific sources were not identified. One wildfire was ignited by sparks created when a foil helium balloon (e.g., party balloon) contacted overhead electrical lines that traversed a wildland area.

4.1.3 Prevention Activities

Prevention activities target eliminating human-caused fires and encouraging installation personnel to implement mitigation measures around at-risk AF assets.

Prevention program goals are to:

- Reduce the likelihood and frequency of human-caused wildfires.
- Reduce emergency suppression costs.
- Reduce fire size and intensity by developing programs such as fuels reduction/modification.
- Establish a cost-effective prevention program.
- Integrate and coordinate prevention program with local installation fire department, the OFS, nearby land management agencies, and wildfire protection organizations.
- Promote the creation of incentives for building and maintaining fire-safe structures and fire-safe communities to reduce the unwanted consequences of fire.
- Minimize damage from wildfires.
- Incorporate prevention programs into the wildland fire management outreach program.

These goals are achieved by:

- Making personnel aware of precautions to prevent an unwanted ignition.
- Informing visitors of fire danger through personal contact and posted signs.
- Implementing trail and/or area closures during periods of extreme fire danger.
- Coordinating with internal and external partners during periods of extreme fire danger.

Prevention priorities of the installation are:

- Prevent catastrophic fires and human-caused wildfires (highest priority).
- Minimize losses from wildfire while considering resource management objectives.
- Collaborate through an interagency approach among all Federal, State, county, and municipal agencies/entities.
- Investigate human-caused wildfires.

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 fire. Wildfire prevention is centered on education and awareness. Education begins with schools teaching children about the detriments of wildfire and

fire safety. Prescribed fire briefings can be used on Tinker to educate the students, residents, employees, contractors, and others about the benefits of prescribed fire in our native ecosystems.

Community involvement from installation personnel will include dissemination of information to the public on well-established national interagency wildland fire prevention and mitigation programs such as *Firewise*, *Fire Adapted Communities*, and *Ready, Set, Go!* The directive for community assistance as part of a comprehensive wildland fire management program has been set forth by AFCEC and AFCEC/CZOF, in support of the National Cohesive Strategy.

Signs indicating current fire danger can be placed in high traffic areas to warn local residents and installation personnel when fire danger is high. This is especially important within the installation around military housing areas where high fuel loads occur. Fire danger and weather information can be found on weather websites such as OK-FIRE.

4.2 MANAGEMENT OF WILDFIRES

Any wildfire reported on base will be reported to Emergency-911. The NRM or his designee will be notified as soon as practical. FES will conduct initial attack of all wildfires. FES is adequately trained to fight fires inside of WUI. FES will continue to attack any fires until they are contained. If at any point, FES can no longer actively contain the fire or becomes outside of WUI, the E-911 Center would be contacted by the on-scene Incident Commander (IC) and additional resources ordered through the Incident Resource Hotline or through mutual aid request.

If a wildfire exceeds the capacity of the installation personnel to contain, then assistance should be requested from surrounding FDs with MOUs/MAAs in place as well as OFS. If an incident transitions into extended attack despite these local mutual aid resources' assistance, the AFCEC/CZOF and the Arkansas-Oklahoma Interagency Coordination Center (AOICC) will be notified immediately. The WSM located at JBSA can be used only at the request of the Fire Chief and if available.

4.2.1 Preparedness and Readiness

Preparedness is defined as activities that lead to a safe, efficient, and cost-effective fire management program that meets objectives through appropriate planning and coordination. This includes actions which are completed on a routine basis prior to each fire season as well as actions conducted in response to increasing fire danger. Preparedness activities need to be scaled to available funding each year and should prioritize the goals and objectives of the INRMP.

Some examples of preparedness are:

- Pre-season wildfire planning with state and local coordinators, typically including a pre-season onsite visit by the WSM lead as needed
- Ensure all training such as annual refresher training and work capacity testing is current for Tinker natural resources personnel planning to participate in prescribed burning
- Brief new Base Commander (if needed due to personnel transitions)
- Review, update, and execute Tinker's Prescribed Fire Tracker 2-3 months prior to burn season
- Review and update Tinker's Public/Base Notification Checklist with current contacts and execute early notifications as required (e.g., ODEQ air quality notification/coordination
- Wildland Urban Interface (WUI) assessments - on installations and with adjacent landowners
- Tactical and initial response planning.

Fire weather conditions are monitored through OK-FIRE and NWS OUN. It is recommended that annual drills, WUI Assessments, and pre-season wildfire planning with state and local coordinators will be implemented.

Seasonal preparedness should include readiness reviews prior to the historic fire season for personnel and equipment using standard forms found on the National Interagency Fire Center (NIFC) website. Additionally, an inventory of cache supplies should be conducted on an annual basis. Communication and medical plans following standard ICS formatting should be reviewed annually.

4.2.1.1 Personnel

Prescribed burns on TAFB will primarily be conducted by the JBSA WSM. The JBSA WSM will maintain the qualifications listed in Table 4.1 to adequately conduct prescribed burns of the complexity level found on TAFB. There are NWCG qualified Natural Resource personnel at Tinker that may participate voluntarily or as needed. This will be at the RXB2 discretion. The IC at Tinker AFB is the FES Chief.

Table 4.1: WSM Prescribed Fire Qualifications

NWCG Mnemonic	Wildfire Suppression Position Title	Number Needed
ICT4	Incident Commander Type 4	1
RXB2	Prescribed Burn Boss, Type 2	1
ENGB	Engine Boss, Single Resource	1
ENOP	Engine Operator	1
FAL3	Basic Faller	1
FFT1	Firefighter, Type 1	2
FFT2	Firefighter, Type 2	1

4.2.1.2 Equipment

TAFB FES has the following equipment available (Table 4.2):

Table 4.2: Current FES Equipment List

Resource	Gallonage	Location
Type 1 Structure Engine	600 gallons	Tinker AFB Station 1
Type 1 Structure Engine	500 gallons	Tinker AFB Station 2
Type 1 Structure Engine	500 gallons	Tinker AFB Station 3
Type 1 Structure Engine	550 gallons	Tinker AFB Station 4
Type 6 Wildland Engine	200 gallons	Tinker AFB Station 1
Type 6 Wildland Engine	200 gallons	Tinker AFB Station 3
Type 7 Wildland Engine	75 gallons	Tinker AFB Station 2
Type S1 Water Tender	4000 gallons	Tinker AFB Station 1

Personal Protective Equipment (PPE)
NWCG standard PPE is required for all personnel engaged in wildland fire operations outside of WUI on TAFB. PPE includes the equipment and clothing required to mitigate the risk of injury from or exposure to hazardous conditions encountered during the performance of duty.
All PPE must meet standards set forth in applicable NFPA Standards.

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 commitment to levels above urban interface is an installation responsibility to OT&E.

4.2.1.3 Water Resources
Tinker has one Type S1 water tender (4000 gallon) which is located at Tinker Station 1 on the north end of base. Hundreds of water hydrants are located across the base; maps of hydrant locations and all base ponds which could serve as water sources are available from Tinker Civil Engineering Geographic Information System (GIS) staff.

4.2.1.4 Fire and Fuel Break System and Maintenance Plan
Major firebreaks at TAFB include mowed firebreaks around the exterior (WUI areas) to prevent fires from coming onto the installation. Interior firebreaks consist of mowed lines around all PBUs. A 20-foot mowed line near the housing units is necessary for safety and protection of fire sensitive construction materials. It is recommended that mowed lines be kept short to reduce thatch build-up and ensure fire break functionality. It is recommended that a permanent fuel break maintenance plan/map be developed for the base.

4.2.2 Training and Qualifications
The Air Force Training, Qualifications and IQCS Management Business Guide, which adheres to National Wildfire Coordinating Group (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. Currently Tinker FES do not maintain any NWCG qualifications.

4.2.2.1 FES Training Guidance
Some Tinker FES staff are scheduled for Wildland Firefighter training by the JBSA WSM in late 2022. Natural resources staff who participate in prescribed fire receive S-130 refresher training

annually by JBSA WSM in fall/early winter. Natural resources staff also receive First Aid/CPR/AED training by Tinker FES every even year.

4.2.3 Wildland Fire Aviation Management

Due to the aviation training mission and the importance of aerial firefighting resources, in the event of a wildfire there may be an inherent conflict between flight operations and wildland fire operations. To ensure the safety of both aerial firefighting resources and military aircraft, if needed the IC will contact E-911 or control tower to request all aviation missions in the fire area to be halted and attempt to end ongoing missions in the area as quickly and safely as possible to clear the airspace for firefighting resources. If an initial attack wildfire incident is adjacent to the installation boundary, then Oklahoma County Dispatch will contact E-911. E-911 will then notify the TAFB fire chief or his designated senior official (SFO) and/or control tower. In the event of an extended attack wildfire on the installation, a Temporary Flight Restriction (TFR) shall be filed with the Federal Aviation Administration (FAA) through the control tower. Due to the size of TAFB, aerial attack on wildfires is highly unlikely.

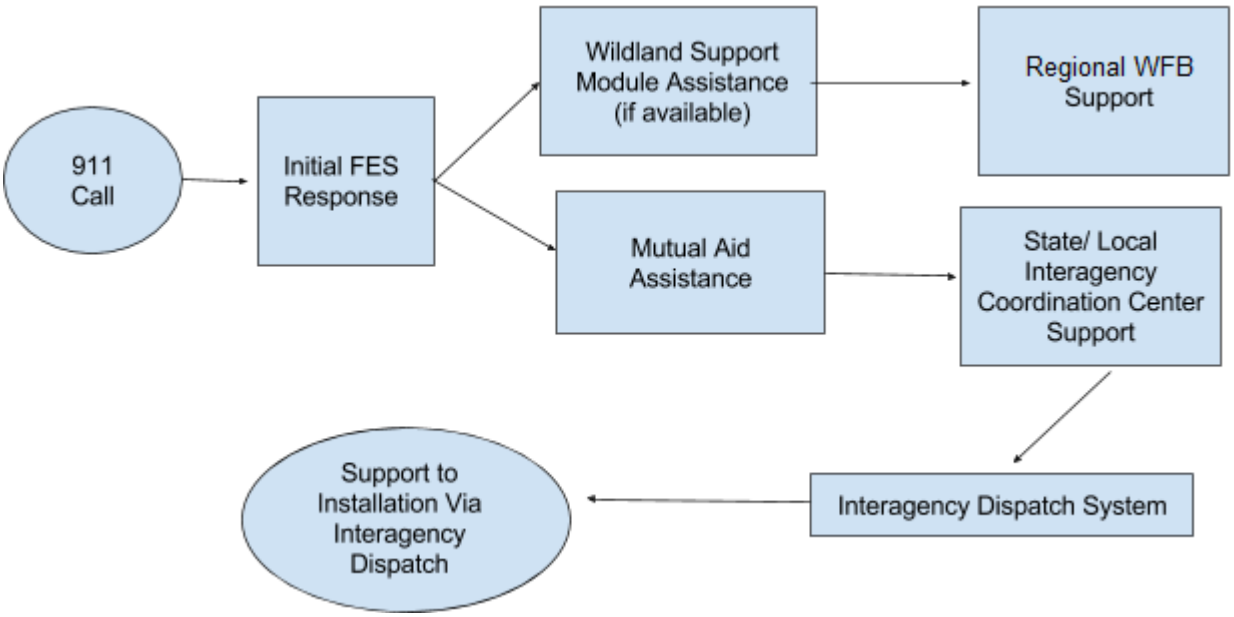
Any fire-related aviation operations will follow applicable guidelines of AFMAN 32-7003 and to the *Interagency Standards for Fire and Fire Aviation Operations* (Red Book), which establishes uniform safety, communications, and organizational standards for firefighting operations across organizations. In addition, the *PMS 510 - Interagency Helicopter Operations Guide* and the *PMS 501 - Interagency Aerial Ignition Guide* will be used as a general guide for aerial operations.

4.2.4 Wildfire Detection and Response, and Initial Attack

Any agency, unit leader, or individual noticing a fire is responsible for reporting it to the E-911 Center as soon as it is detected. Although fire occurrence is low, the number of visitors and terrain allow for relatively easy visual detection of fires by the public or AF personnel.

The IC will initially size up the incident to determine the safest and most efficient incident action plan to provide the maximum protection for the safety of personnel, facilities, and natural resources. All wildland fire personnel will document wildfires on ICS Form ICS-214, Activity Log. DoDI 6055.06 requires direct wildland attack capability within 10 minutes of arrival of the initial wildland fire company at the fire scene. On-installation wildfire response procedures are summarized in Figure 4.2.

Figure 4.2: On Installation Wildfire Response



Current mutual aid agreements (MAAs) are required for off-installation wildfire response. Response procedures will be written into the MAAs, which must be followed.

4.2.5 Wildfire Investigation

Wildfires will 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. The *Interagency Standards for Wildland Fire and Aviation Operations* provides detailed information regarding investigation and trespass procedures.

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

- Installation resources will conduct initial attack of wildfires, and will be dispatched through the E-911 Center. The primary objectives will be firefighter and public safety.
- Unified command may be established when the installation is responding to a vegetation fire that has crossed or is likely to cross an installation boundary.
- Requests for mutual aid by the TAFB IC or outside agency requests for installation resources will be routed through the E-911 Center to the on duty SFO. The fire chief, Base Civil Engineer (BCE), and the 72 ABW Commander are all immediately notified of the mutual aid requested or provided.

- 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.

TAFB currently has MAAs with the following entities:

- Fire department of the city of Choctaw, Oklahoma
- Fire department of the city of Del City, Oklahoma
- Fire department of the city of Midwest City, Oklahoma
- Fire department of the city of Oklahoma City, Oklahoma

Copies of each of these MAAs are located in Appendix 2.1 of this WFMP. These MAAs should be revisited on an annual basis collaboratively between the assisting entity, the FES FC and the WFPC. Emergency assistance and MAAs will conform to the guidelines stated in AFI 32-2001.

4.3 WILDFIRE INCIDENT MANAGEMENT

Wildfires occurring on AF managed lands will have a response consistent with firefighter safety, known and potential hazards, and resource values-at-risk. Consistent with Department of Homeland Security (DHS) Presidential Directive/HSPD-5, *Management of Domestic Incidents*, 22 February 2003, AF wildfire response will incorporate NIMS standards into the organizational structure to facilitate cooperation and integration with other federal and state wildland fire organizations across jurisdictional boundaries.

Installation resources will conduct initial attack of wildfires, and will be dispatched through the E-911 Center. The primary objectives will be firefighter and public safety. The *Interagency Standards for Wildland Fire and Aviation Operations* may be used as a reference. ICs will follow the direction in Section 1.5.4 for managing the initial attack response. A *Wildland Fire Risk and Complexity Assessment* (WFRCA) can be completed to determine the proper level of IC or IMT needed. In addition to the preceding link, this form can be found in the PMS 210. If the fire moves into extended attack, another WFRCA can be completed. Typically, an extended attack fire would be indicative of a Type 3 incident. The vast majority of fires on TAFB are of Type 4 or Type 5 complexity. If the fire poses a threat to structures or could affect multiple resources, an EOC will be stood up to assist in the management of the incident.

4.3.1 Dispatching Beyond Initial Attack

The IC will notify the E-911 Center and 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 needed beyond MAA resources will be ordered by E-911 through standing MOUs.

The NRM will notify AFCEC/CZOF of any wildfire on or threatening AF infrastructure as soon as practical. The NRM will follow the Wildfire Reporting Requirements in sections 4.3.3.

If requested, AFCEC/CZOF will aid with extended attack support including:

- Mobilizing a WSM, if needed and available
- Assisting the WFPC or FES Chief complete a Delegation of Authority for incoming IC, if needed.

4.3.2 Delegation of Authority of Incident Commander (IC)

If the wildfire exceeds the capability of the current IC, a Delegation of Authority (DoA) will be competed and provided to the incoming IC from outside of installation chain of command. See Federal Interagency Standards for Fire and Aviation Operations for DoA templates.

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 Regional Fire Management Officer (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

NR is responsible for evaluating wildfire suppression damage, recommending repair needs, and monitoring repair measures to ensure that the area is restored to as a natural condition as possible. For incidents suppressed during initial attack, this damage will be assessed by NR following the issuance of a containment declaration by the IC. While firefighting resources are still on scene to perform repair work, as appropriate, and without jeopardizing the control declaration, fireline and other damage caused by the suppression of the wildfire will be repaired.

Emergency Stabilization (ES) Plan

ES refers to planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair, replace, or construct physical improvements necessary to prevent degradation of land or resources. Burned Area Emergency Response (BAER) refers to an agency response to a wildfire implementing the ES program.

The WFPC will determine if the emergency nature of a fire event warrants the development of a BAER plan. If so, the BAER plan must be developed expeditiously and is frequently developed by a local unit or designated BAER team. The WFPC is responsible for ordering or assigning teams to develop BAER plans. The installation may not have sufficient expertise to conduct burned area assessments. Resource specialists from cooperating installations, partner agencies, and/or the AFCEC/CZOF may be needed to assist in developing a BAER plan.

A BAER plan is an ES document that specifies treatments approved to implement post-wildfire ES policies on an individual incident. This plan/report is prepared by an interdisciplinary team of specialists during or immediately after the containment of a wildfire. USDI uses the term "plan" and the USFS uses the term "report". The ES plan and BAER plan are synonymous. The Interagency Burned Area Emergency Response Guidebook, Version 4.0, February 2006 provides

guidance on how the U.S. Department of the Interior (USDI) and USFS implement the ES program and may be useful to guide ES actions on TAFB.

Burned Area Rehabilitation (BAR)

BAR refers to non-emergency efforts undertaken within the first 5 years of a wildfire to repair or improve fire-damaged lands which are unlikely to recover naturally to healthy conditions or to repair or replace minor facilities damaged by fire.

A BAR plan is a document that specifies treatments required to implement post-fire rehabilitation policies. This plan may be programmatic (prepared in advance) and applicable to clearly defined types of incidents and situations, or prepared by an interdisciplinary team of specialists (BAR team) during or immediately following the containment of a wildland fire. Guidance for preparing a BAR plan can be found here.

5. REVISION/ANNUAL REVIEW AND FUEL MONITORING

5.1 REVISION AND ANNUAL REVIEW PROCESS

Tinker's WFMP will be revised and annually reviewed by the TAFB WFPC in coordination with the TAFB FES and AFWFB WSM. Since Tinker's WFMP is included as a component plan in the TAFB INRMP, it will receive 5-year revisions and annual reviews/updates concurrently with the INRMP revision/annual review process. Therefore, signoff of the INRMP revisions and annual reviews will constitute signoff of the WFMP. The INRMP is reviewed/updated annually by the NRM/WFPC and is coordinated with TAFB Environmental Management System Cross Functional Team representatives, CE community planners, legal office, public affairs, FES, BCE, and others. Annual review will follow the plans and permit tracker found on eDASH. Internal review due date is 3 months before annual compliance due date.

5.2 TREATMENT EFFECTIVENESS MONITORING

Fire Effects Monitoring is the short and long-term data gathering done prior to and after each burn to show trends. This data collection will show the level of effectiveness that an activity will or will not achieve. Monitoring schedules will be made based upon the objective(s) of the prescribed fire. This will ensure the timely capture of data so that the success or failure to achieve objective(s) may be evaluated. The AFWFB has developed a Fuels Monitoring Protocol that can be found in Appendix 5.1. The protocol has several methods of monitoring to choose from depending on the complexity of the wildland fire program. It is recommended that the NRM and the WSM Lead

discuss the monitoring protocol and choose an option suited for Tinker's program. The NR staff will be responsible for collection and storage of this data. The WSM will support as needed.

LIST OF ACRONYMS

AAR	After Action Review
ACES-FD	Automated Civil Engineering System – Fire Department
AF/USAF	United States Air Force
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFCEC/CZOF	Air Force Wildland Fire Branch
AFI	Air Force Instruction
AFSEC	Air Force Safety Center
AFWFB	Air Force Wildland Fire Branch
AOICC	Arkansas Oklahoma Interagency Coordination Center
AOP	Annual Operating Plan
ARPA	Archeological Resources Protection Act of 1979
ATC	Air Traffic Control
BAER	Burned Area Emergency Response
BAR	Burned Area Rehabilitation
BASH	Bird/Wildlife Aircraft Strike Hazard
BCE	Base Civil Engineer
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
CAA	Clean Air Act
CATEX	Categorical Exclusion
CE	Civil Engineer
CEA	Environmental Flight
CEIE	Natural/Cultural Resources Office
CES	Civil Engineering Flight
CFR	Code of Federal Regulations
CPR	Cardio Pulmonary Resuscitation
CRM	Cultural Resource Manager
CWA	Clean Water Act
CZO	Environmental Management Operations Division
DAA	Defense Appropriations Act
DHS	U.S. Department of Homeland Security
DoD	U.S. Department of Defense
DoDI	Department of Defense Instruction
DZOP	NWCG Dozer Operator
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMT	Emergency Medical Technician
ENGB	NWCG Engine Boss (Single Resource)
EOC	Emergency Operations Center
ES	Emergency Stabilization
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FAL3/2/1	NWCG Faller Type 3/2/1
FC	FES Fire Chief
FD	Fire Department
FEMA	Federal Emergency Management Administration
FES	Fire & Emergency Services
FFT2/1	NWCG Firefighter Type 2/1
FLUPMA	Federal Land Use Policy and Management Act
FMO	Fire Management Officer
FMU	Fire Management Unit
FNWA	Federal Noxious Weed Act
FWCA	Fish and Wildlife Conservation Act

GIS	Geographic Information Systems
GSU	Geographically Separated Unit
IC	Incident Commander
ICRMP	Integrated Cultural Resources Management Plan
ICS	Incident Command System
ICT3/4/5	NWCG Incident Commander Type 3/4/5
IMT	Incident Management Team
INRMP	Integrated Natural Resources Management Plan
INVF	Wildland Fire Investigator
IPMP	Integrated Pest Management Plan
IQCS	Incident Qualification and Certification System
IRPG	Incident Response Pocket Guide
ISS	Installation Support Section
MAA	Mutual Aid Agreement
MOU	Memorandum of Understanding
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Protection Act of 1970
NFDRS	National Fire Danger Rating System
NFIRS	National Fire Incident Reporting System
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act of 1973
NIFC	National Interagency Fire Center
NIMS	National Incident Management System
NR	Natural Resources
NRCS	USDA Natural Resources Conservation Service
NRM	Natural Resources Manager
NWCG	National Wildfire Coordinating Group
NWS	National Weather Service
OC-ALC	Oklahoma City Air Logistics Complex
ODEQ	Oklahoma Department of Environmental Quality
OFS	Oklahoma Forestry Services
PAO	Public Affairs Office
PFP	Prescribed Fire Plan
PMS	NWCG Publication Prefix
PIO	Public Information Officer
PL	Preparedness Level
POC	Point of Contact
PPE	Personal Protective Equipment
PTB	Position Taskbook
RAWS	Remote Automated Weather Station
READ	Resource Advisor
RFMO	Regional Fire Management Officer
RX	Prescribed Fire
RXB2/3	NWCG Prescribed Burn Boss Type 2/3
SFO	Senior Field Officer
SHPO	State Historic Preservation Office
SOP	Standard Operating Procedure
TAFB	Tinker Air Force Base
T3/4/5/6	NWCG Type 3/4/5/6 Engine
T&E	Threatened & Endangered
TFR	Temporary Flight Restriction
US/USA	United States of America

USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish & Wildlife Service
VFD	Volunteer Fire Department
WCT	Work Capacity Test
WFMP	Wildland Fire Management Plan
WFO	Weather Field Office
WFPC	Wildland Fire Program Coordinator
WSM	Wildland Support Module
WUI	Wildland Urban Interface

APPENDIX 1.1 INSTALLATION AND INTERAGENCY CONTACT INFORMATION

Contact Name	Position	Phone	Email
Installation FES			
Terry Ford	FES Fire Chief	(405) 734-3997	terry.ford.1@us.af.mil
Nathan Schooling	FES Deputy Fire Chief	(405) 734-3968	nathan.schooling@us.af.mil
Installation NR			
John Krupovage	NR Manager WFPC	(405) 739-7074, (405) 620-7473 (c)	john.krupovage@us.af.mil
Tom Miller	ISS Environmental GIS Support Analyst	(405) 739-7063, (405) 420-3165 (c)	thomas.miller.74.ctr@us.af.mil
AFCEC/CZOF			
Alberto Moreno	FMO	(210) 652-6820	Luis.moreno.6@us.af.mil
Blake Stewart	AFMO	(719) 651-0669	blake_stewart@fws.gov
Nate Suida	WSM Lead	(480) 528-6818	nsuida@blm.gov
Niles Ludlow	WSM Asst. Lead	(210) 202-6897	nludlow@blm.gov
Brad Shoemaker	Branch Chief	(406) 702-2344	Bradley.Shoemaker.2@us.af.mil
Percy Metivier	Training PM	(210) 652-6815	percy.metivier@us.af.mil
Kelley Anderson	Fire Ecologist/ Planner	(850) 517-7745	kelley.anderson.3.ctr@us.af.mil
AFCEC/CZOW ISS			
James Dawson	ISS Lead	(405) 736-3063	james.dawson.2@us.af.mil
AFCEC/CZOM Regional Support Branch (RSB)			

Contact Name	Position	Phone	Email
Katy Breyer	RSS West	-	katy.breyer@us.af.mil
Cooperating Agencies & Other			
Oklahoma Department of Environmental Quality		(405) 702-4151	-

APPENDIX 1.2 WFPC DELEGATION OF AUTHORITY

DELEGATION OF AUTHORITY FOR WILDLAND FIRE MANAGEMENT

The Wildland Fire Program Coordinator (WFPC) for **Tinker AFB**, 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. Acquire 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 Tinker is the NR Manager.

This delegation of authority for wildland fire management program operations will be in effect from the date signed by the base commander (or their designee) until the 5 year review is conducted. It will be reviewed as part of the annual INRMP review process.

APPENDIX 2.1 MOUS & MUTUAL AID AGREEMENTS

The following mutual aid agreements are in place at TAFB with the following entities for fire protection and incident response:

- Fire department of the city of Choctaw, Oklahoma

2021 Choctaw Mutual Aid Agreement EXPIRI

- Fire department of the city of Midwest City, Oklahoma

2021 MWC Mutual Aid Agreement EXPIRI

- Fire department of the city of Oklahoma City, Oklahoma

2021 OKC Mutual Aid Agreement EXPIRES 2

- Fire department of the city of Del City, Oklahoma

2021 Del City Mutual Aid Agreement EXPIRI

APPENDIX 2.2 BURNING PERMIT INSTRUCTIONS FOR THE CITY OF OKLAHOMA CITY

BurnPermitInstructions.pdf

APPENDIX 3.1 SPECIES OF SPECIAL CONCERN

Below is a listing of species of special concern present on TAFB.

Type	Description
Special Concern	Barn owl (*Tyto alba*)
	Bald Eagle (*Haliaeetus leucocephalus*)
	Barred Owl (*Strix varia*)
	Burrowing Owl (*Athene cunicularia*)
	Dickcissel (*Spiza Americana*)
	Fox Sparrow (*Passerella iliaca*)
	Harris Sparrow (*Zonotrichia querula*)
	Little Blue Heron (*Egretta caerulea*)
	Migrant Loggerhead Shrike (*Lanius ludovivianus migrans*)
	Mississippi Kite (*Ictinia mississippiensis*)
	Orchard Oriole (*Icterus spurius*)
	Painted Bunting (*Passerina ciris*)
	Red-headed Woodpecker (*Malanerpes erythrocephalus*)
	Scissor-tailed flycatcher (*Tyrannus forficatus*)
	Snowy Plover (*Charadrius alexandrines*)
	Swainson's Hawk (*Buteo swainsoni*)
	Texas Horned Lizard (*Phrynosoma cornutum*)

APPENDIX 5.1 FUELS MONITORING PROTOCOL

Fuels Monitoring Protocol AFWFB.doc