

**ENVIRONMENTAL ASSESSMENT**  
for the Revised  
**INTEGRATED NATURAL RESOURCES**  
**MANAGEMENT PLAN**

**ARIZONA ARMY NATIONAL GUARD**  
**CAMP NAVAJO**  
**1 HUGHES AVE**  
**BELLEMONT, ARIZONA 86015**



**June 2020**

**Version 2—Preliminary Draft**

**Army National Guard Installations and Environment Directorate**

## **ENVIRONMENTAL ASSESSMENT ORGANIZATION**

This Environmental Assessment (EA) evaluates the potential environmental, socioeconomic and cultural effects of the Army National Guard Proposed Action to implement the Integrated Natural Resources Management Plan (INRMP) at Camp Navajo, an Arizona Army National Guard (AZARNG) Installation in Bellemont, Arizona.

As required by the National Environmental Policy Act of 1969 (NEPA) (42 United States Code 4321 *et seq.*), the Council on Environmental Quality Regulations Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the 32 CFR Part 651 (Environmental Analysis of Army Actions, Final Rule), the potential effects of the Proposed Action are analyzed. This EA will facilitate the decision-making process by the National Guard Bureau regarding the Proposed Action and its considered alternative and is organized as follows:

- **EXECUTIVE SUMMARY:** Describes the Proposed Action and its considered alternatives; summarizes environmental, cultural, and socioeconomic consequences; and compares potential effects associated with considered alternatives, including the No Action Alternative.
- **SECTION 1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION:** Summarizes the purpose and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.
- **SECTION 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES:** Introduces the Proposed Action and examines alternatives for implementing the Proposed Action, including the No Action Alternative.
- **SECTION 3 AFFECTED ENVIRONMENT:** Describes the existing environmental, cultural and socioeconomic setting for the region of influence of the Proposed Action and considered alternatives.
- **SECTION 4 ENVIRONMENTAL CONSEQUENCES:** Identifies individual and cumulative environmental, cultural, and socioeconomic effects of implementing the Proposed Action and its alternatives and identifies proposed mitigation measures.
- **SECTION 5 COMPARISON OF ALTERNATIVES AND CONCLUSIONS:** Compares and contrasts the effects of considered alternatives and summarizes the significance of individual and cumulative effects for each alternative.
- **SECTION 6 REFERENCES:** Provides bibliographical information for cited sources.
- **SECTION 7 GLOSSARY:** Provides definitions for technical terminology.
- **SECTION 8 LIST OF PREPARERS:** Details list of authors and credentials.
- **SECTION 9 AGENCIES AND INDIVIDUALS CONSULTED:** Lists agencies and individuals consulted during the preparation of this EA.

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**ENVIRONMENTAL ASSESSMENT SIGNATURE PAGE**

LEAD AGENCY: National Guard Bureau

COOPERATING AGENCIES: None

TITLE OF PROPOSED ACTION: Integrated Natural Resources Management Plan (INRMP; Revision)

AFFECTED JURISDICTION: Camp Navajo, Bellemont, Arizona

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ABSTRACT: The Arizona Army National Guard proposes the implementation of the Camp Navajo INRMP (Proposed Action) to provide for the integrated management of the following resource issues: land use, planning and maintenance, soil conservation and water quality, grassland and forest management, fish and wildlife management, wetland and aquatic habitat management, floodplain and riparian zone management, invasive species management, and threatened and endangered species management. The INRMP will provide a long-term benefit by ensuring coordination with land management stakeholders via annual review of plan goals and objectives, securing funds for various projects via designation of project priorities and hierarchy, and protecting Camp Navajo training lands and assets via ecosystem management and Sikes Act

compliance. The INRMP identifies goals and projects that, when implemented, will help accomplish the set goals.

The EA evaluated the individual and cumulative effects of the Proposed Action and the No Action Alternative with respect to following criteria: geographic setting and land use, air quality, noise, geology, soils, topography, water resources, biological resources, cultural resources, socioeconomic environment, infrastructure, and hazardous and toxic materials/wastes.

The evaluation performed in this EA concluded that there will be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life associated with the implementation of the Proposed Action, and no mitigation measures will be required.

## 1 EXECUTIVE SUMMARY

2 The Arizona Army National Guard (AZARNG) is responsible for natural resources management  
3 on Camp Navajo, an approximately 28,413-acre installation in Bellemont, Arizona. An Integrated  
4 Natural Resources Management Plan (INRMP) was completed for Camp Navajo in November  
5 2001. The current Camp Navajo INRMP has been in the process of revision and updating since  
6 2006. In 2013, the Camp Navajo INRMP was signed by AZARNG leadership, the United States  
7 Fish and Wildlife Service (USFWS), and the Arizona Game and Fish Department (AGFD). The  
8 Camp Navajo INRMP, Environmental Assessment (EA), and draft Finding of No Significant  
9 Impact (FONSI) was then submitted to the Army National Guard (ARNG) for final review. Prior to  
10 the submission, the INRMP and EA were publicly scoped, including Tribal consultation and a  
11 public comment period. ARNG provided comments to the State of Arizona requiring a significant  
12 revision to the EA. The revised draft was again submitted to ARNG for comments, which were  
13 received by the Arizona Army National Guard Environmental Office in January 2019. AZARNG is  
14 contracting out final revisions and coordination.

### 15 *Proposed Action*

16 The Proposed Action entails assessment and approval of the AZARNG INRMP and  
17 implementation of its land management actions for the area encompassed by the Camp Navajo  
18 installment in Bellemont, Coconino County, Arizona. The INRMP provides AZARNG and visiting  
19 personnel with a description of the Camp Navajo (such as location, history, and mission),  
20 information about the surrounding physical and biotic environment, and an assessment of the  
21 impacts to natural resources resulting from mission activities. This EA addresses the AZARNG's  
22 proposal to implement the revised INRMP for Camp Navajo.

### 23 *Purpose of and Need for the Proposed Action*

24 The mission of Arizona Garrison Training Center is to command, operate, manage, and  
25 administer the use of resources of the Level III Training Center, per NGR 5-3: "a training  
26 installation that supports individual or collective training of multiple battalions" to accomplish  
27 assigned missions. The mission includes providing year-round service through administrative,  
28 engineering, logistical, training, and operational support to assigned, attached, or transient  
29 (support component) units and joint forces for multiple battalions. The vision is to maximize the  
30 capability, availability, and accessibility of ranges and training lands to support doctrinal  
31 requirements, mobilization, and deployments under normal and surge conditions. The Camp  
32 Navajo mission statement is "To operate a training site and storage facility at Bellemont, Arizona."  
33 The AZARNG is committed to sound environmental stewardship, continuous improvement,  
34 compliance to regulatory and other requirements, conserving our natural resources, preventing  
35 pollution or contamination, gaining the support of the communities in which we work and live, and  
36 incorporating professionalism and environmental planning in all we do.

37 The purpose of this INRMP revision (the Proposed Action) is to carry out an integrated program  
38 that provides for the conservation and rehabilitation of natural resources at Camp Navajo.  
39 Implementation of the elements of the revised INRMP will support the safety and efficiency of the  
40 mission at Camp Navajo, sound resource stewardship at Camp Navajo, and compliance with  
41 environmental policies and regulations. This revision is needed primarily due to changes in Camp

42 Navajo's wildfire and forest management plans. The INRMP was produced in cooperation with  
43 the USFWS and the AGFD per the regulations set in Sikes Act Improvement Act.

#### 44 *Alternatives*

45 The following criteria were used to screen potential alternatives and determine if they were  
46 reasonable in fulfilling the Purpose and Need and appropriate for detailed analysis in this  
47 Programmatic EA:

- 48 1. Will the alternative provide AZARNG's natural resource personnel with an updated baseline  
49 description of Camp Navajo and its surrounding environment?
- 50 2. Will the alternative present practical options and management activities consistent with  
51 AZARNG's training mission and provide for the management and stewardship of natural  
52 resources to promote conservation, enhancement, and sustainability of existing ecosystems  
53 within Camp Navajo?
- 54 3. Will the alternative be compliant with the Sikes Act Improvement Act and related Department  
55 of Defense guidance, which requires cooperating partners to review the existing INRMP at  
56 least once every 5 years for operation and effect?

57 Applying the screening criteria, no reasonable alternative to the preparation of a "new" compliant  
58 INRMP that meets the Purpose and Need for the Proposed Action has been identified for detailed  
59 analysis in this EA. Within National Environmental Protection Act (NEPA) analysis, a No Action  
60 Alternative is required to set a baseline against which the action alternatives can be compared.  
61 The No Action Alternative—to continue to operate under the non-compliant, outdated 2001 Plan—  
62 has been analyzed as required by NEPA and its implementing regulations.

#### 63 *Affected Environment*

64 Camp Navajo is located in north-central Arizona, 12 miles west of Flagstaff, 17 miles east of  
65 Williams, and adjacent to the small community of Bellemont located along Interstate 40. A large  
66 portion of the land surrounding Camp Navajo is undeveloped and managed by the United States  
67 Forest Service, Arizona State Trust Lands, and some private holdings, with the Kaibab and  
68 Coconino National Forest lands being the predominant land managers. Camp Navajo provides a  
69 variety of environmental conditions and ecosystems in which to train Soldiers. This training  
70 objective must be met in a way that provides for sustainable, healthy ecosystems; complies with  
71 applicable environmental laws and regulations; and ensures no net loss in the capability of military  
72 installation lands to support the military mission.

#### 73 *Environmental Consequences*

74 The Proposed Action was evaluated to determine its potential direct or indirect impact(s) on the  
75 physical, environmental, cultural, and socioeconomic aspects of the Proposed Action and the  
76 surrounding area. Technical areas evaluated include land use and cover; air quality; noise;  
77 topography, geology, and soils; water resources; biological resources; cultural resources;  
78 socioeconomics; environmental justice; infrastructure; and Hazardous Materials and Waste  
79 (HTMW). The Preferred Action Alternative and No Action Alternative would result in the impacts  
80 identified throughout Section 4 and summarized in **Table ES-1**.

81 The following resources were eliminated from detailed analysis, because the Proposed Action  
82 and the No Action Alternative would result in no adverse effects or negligible adverse effects:  
83 airspace, geology, Topography, HTMW, socioeconomics, environmental justice, and  
84 infrastructure. These resources were eliminated from further study based on the findings from  
85 internal scoping, review of available data, or the resources not being present at Camp Navajo.

<b>TABLE ES-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Technical Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<b>Land Jurisdiction/Use</b>	The Proposed Action would result in long-term beneficial effects on land use. The Proposed Action would create a diversity of forest conditions for training and would decrease the risk of large, high-intensity wildfires. The training land would be maintained so that the military mission can be conducted on Camp Navajo well into the future without jeopardizing the quality of the installation's natural resources.	The No Action Alternative would result in potentially short-term and long-term adverse effects on natural resources due to the risk of large, high-intensity wildfire.
<b>Air Quality</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on air quality in the area of Camp Navajo. The installation would continue to be located within an attainment area with respect to National Ambient Air Quality Standards (NAAQS). Forest management activities would temporarily impact air quality through the prescribed fire program. These activities would also reduce the potential for larger, more intense wildfires, which disperse greater quantities of smoke.	The No Action Alternative would result in no long-term effects to air quality in the area of Camp Navajo. The risk of short-term adverse effects on air quality resulting from a large, high-intensity wildfire would remain.
<b>Noise</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on noise levels and would increase noise levels within the vicinity of the project area. The increase would be related to forest management and meadow restoration activities.	Under the No Action Alternative, no short-term or long-term effects on noise levels are anticipated within Camp Navajo.
<b>Soils</b>	The Proposed Action and associated conservation measures would result in short-term, direct, adverse, less than significant effects to soil erosion. Forest management and natural resources activities, including meadow restoration, would have a long-term, positive effect by reducing the potential for soil erosion thorough maintaining and repairing damaged	The No Action Alternative would have no short-term or long-term effects on soils within Camp Navajo. Soil erosion potential would not increase above current levels. The risk of large-scale, high-intensity wildfires and associated erosion would remain.

<b>TABLE ES-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Technical Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
	areas and decreasing the risk of large, high-intensity wildfire.	
<b>Water Resources</b>	The Proposed Action would have minor, short-term, direct, less than significant effects on water resources but would not affect surface water resources in the vicinity of the action area. The Proposed Action would have a positive effect on water resources by reducing the potential for severe-intensity wildfires, which could cause adverse effects to water resources.	The No Action Alternative would have no short-term or long-term effects on water resources within Camp Navajo. The risk of large, high-intensity wildfires and associated adverse effects to water resources would remain.
<b>Biological Resources</b>		
<b>Vegetation</b>	The Proposed Action would have a long-term beneficial effect on the diversity of forest conditions. The Proposed Action would provide reductions in canopy bulk density, with associated reductions in the risk of crown fires and improved forest resiliency to disturbances such as insects, disease, climate change, and wildfire. Proposed activities would have a less than significant adverse effect on local vegetation caused by construction of roads/trails and forest management. The Proposed Action would improve vegetation biodiversity, wildlife habitat, soil productivity, and watershed function.	The No Action Alternative would have no short-term or long-term effects on vegetation beyond the baseline condition. Vegetative and fuel conditions would remain conducive to crown fire, which could result in a large-scale disturbance and loss of forested area for training. Improvement in forest resiliency would not occur in the absence of disturbance.
<b>Fish and Wildlife</b>	The Proposed Action may result in potential mortality of individuals of smaller species such as rodents, reptiles, and amphibians from forest treatments and meadow restoration projects. Additional less than significant effects to wildlife may include noise disturbance and loss of food, cover, and breeding sites due to forest treatments and meadow restoration. However, the Proposed Action would also have a positive effect on wildlife	The No Action Alternative would have no short-term or long-term effects on wildlife beyond the baseline condition. The No Action Alternative provides for management of biological resources opportunistically with most yearly funding prioritized to Endangered Species Act (ESA)-listed species. The risk of adverse effects on wildlife from large wildfires would remain.

<p align="center"><b>TABLE ES-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b></p>		
<p><b>Technical Resource Area</b></p>	<p><b>Proposed Action</b></p>	<p><b>No Action Alternative</b></p>
	<p>habitat by providing reductions in canopy bulk density and associated reductions in the risk of crown fires and restoring meadows to natural conditions. These effects are unlikely to substantially reduce wildlife populations in the region because of the relatively small areas affected and are likely only short-term adverse effects.</p>	
<p align="center"><b>Mexican Spotted Owl</b></p>	<p>The Proposed Action would have short-term, less than significant adverse effects on Mexican spotted owls (MSOs) in the form of habitat disturbance and loss, noise disturbance, and potential injury or death, including within designated critical habitat. A Biological Opinion (BO) for this species was issued by the USFWS on 27 May 2015 (<b>Appendix H</b> of the INRMP), which determined that the forest treatments were likely to adversely affect the MSO. Implementation of the conservation measures outlined in the BO would minimize the effects of the Proposed Action to a less than significant level.</p>	<p>The No Action Alternative would have no short-term or long-term effects on MSO beyond the baseline condition and would not result in additional loss of individuals or critical habitat. Conservation measures outlined within the Camp Navajo INRMP and BO would continue to be implemented to minimize disturbance and effects to MSO and designated critical habitat within the installation. The risk of adverse effects due to wildfire would remain.</p>
<p align="center"><b>Bald Eagle</b></p>	<p>The Proposed Action would have short-term, less than significant adverse effects on bald eagles with the removal of potential roosting and foraging habitat and the increased noise levels within bald eagle habitat. Overall use may decrease with removal of habitat in those areas, but the Proposed Action is not likely to result in a trend toward federal listing or loss of viability of the bald eagle. Conservation measures would be implemented to minimize effects of the Proposed Action. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to minimize disturbance and effects</p>	<p>The No Action Alternative would have no short-term or long-term effects on bald eagles beyond the baseline condition and would not result in a trend toward federal listing or loss of viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to minimize disturbance and effects to bald eagles within the installation. The risk of adverse effects due to wildfire would remain.</p>

<p align="center"><b>TABLE ES-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b></p>		
<p><b>Technical Resource Area</b></p>	<p><b>Proposed Action</b></p>	<p><b>No Action Alternative</b></p>
	<p>to bald eagles within the installation.</p>	
<p align="center"><b>Migratory Birds</b></p>	<p>The Proposed Action may have short-term, less than significant adverse effects to individual birds, nests, and/or eggs but would not result in a trend toward federal listing or loss of viability of any migratory bird species. Effects would be in the form of habitat disturbance and loss, noise disturbance, and potential injury or death. Conservation measures would be implemented to avoid effects of the Proposed Action.</p>	<p>The No Action Alternative would have no short-term or long-term effects on migratory birds beyond the baseline condition and would not result in a trend toward federal listing or loss of viability of any migratory bird species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to avoid disturbance and effects to migratory birds, nests, and eggs. The risk of short- and long-term adverse effects due to wildfire would remain.</p>
<p align="center"><b>Arizona State Protected Plants</b></p>	<p>The Proposed Action may result in short-term, less than significant adverse effects to Arizona State Protected Plants, as potential habitat for plants protected under the Arizona Native Plant Law exists within the Proposed Action area. Potential effects are not likely to result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species.</p>	<p>The No Action Alternative would likely have no short-term or long-term effects on Arizona State Protected Plants beyond the baseline condition and would not result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species. The risk of adverse effects due to wildfire would remain.</p>
<p align="center"><b>Federal and State Listed Species of Concern</b></p>	<p>The Proposed Action would have a short-term, less than significant adverse impact on federal and state listed Species of Concern (SC) (such as bats and goshawk); however, it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP and the 2015 BO (<b>Appendix H</b> of the INRMP) would continue to be implemented throughout the installation.</p>	<p>The No Action Alternative would likely have no short-term or long-term effects on federal and state listed SC, as it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation. The risk of adverse effects due to wildfire would remain.</p>

<b>TABLE ES-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Technical Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<p><b>Cultural Resources</b></p>	<p>The Proposed Action would have less than significant effects on cultural resources. The Proposed Action contains provisions for the location and preservation of cultural sites if ground-disturbing activities are proposed for unsurveyed sites. Project reviews follow the National Historic Preservation Act guidelines. Guidelines to avoid or reduce the adverse effect of the Proposed Action would be developed and implemented.</p>	<p>The No Action Alternative would have no effect on cultural resources, but they would continue to weather and erode. The risk of adverse effects due to wildfire would remain.</p>

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*Conservation Measures Required under the BO:***1. Biological Opinion on Camp Navajo Army Depot Firing Range Expansion Project (February 2005)**

- a. All activities that may cause disturbance to bald eagle roost and forage sites within Camp Navajo would be avoided when feasible. Specifically, activities within the proposed firing range complex would be minimized from 15 October to 15 April.
- b. During winter months when bald eagles are present in the area, activities at the proposed firing range complex would be concentrated between the hours of 1000 to 1600 hours, when possible, minimizing the potential disturbance to roosting bald eagles.
- c. Winter raptor surveys would continue on a yearly basis. These surveys would assist in determining the presence of bald eagles and locating potential roost sites.
- d. Prior to any range use, a visual scan of the range would be made for the presence of large raptors, including bald eagles and MSOs. Trained personnel will conduct these searches. If large raptors are observed during initial scans of the range area, the Camp Navajo natural resources specialist would be notified and activities would be halted until species identification and clearance of activities are provided. If no large raptors are observed prior to range use, activities would proceed as planned.
- e. If a bald eagle winter roost site is located within the vicinity of the range complex (including surface danger zones [SDZs]), bald eagles at the site will be monitored during range use to determine the effects of noise and military activity. The AZARNG would continue to analyze winter raptor and breeding bird survey data to determine patterns of habitat use within the action area and implement beneficial management actions.
- f. Firing range targets will be configured in such a way as to avoid large-diameter trees and snags.
- g. Trees left within proposed firing ranges would be monitored to assess long-term damage from training rounds. A monitoring program for forested areas within proposed firing ranges and SDZs also may be established to assess forest reproduction and recruitment. Monitoring would be conducted under the Land Condition Trend Analysis component of the AZARNG Integrated Training Area Management (ITAM) Program.
- h. Roadways and areas disturbed during construction activities that would not be needed for the proposed range complex would be revegetated with native plant species.
- i. Mechanical thinning and prescribed burning within the firebreak perimeters would be conducted in order to minimize the risk of wildfire spreading to potential MSO habitat and bald eagle roosting habitat.
- j. AZARNG would continue to conduct biennial MSO surveys within Camp Navajo in accordance with the recommended USFWS protocol.

**2. Biological Opinion for Re-initiation Maneuver Training Center—Light (May 2015)**

- a. AZARNG would continue to conduct biennial surveys for the MSO within Camp Navajo in partnership with and according to USFWS survey protocol. The information could be used to better determine areas where AZARNG activities could be tailored to maintain MSO habitat. In addition, the AZARNG will

- monitor Protected Activity Centers (PACs) annually.
- b. Prior to any range use, a visual scan of the range would be made for the presence of raptors, including MSOs. Trained personnel would conduct these searches. If raptors are observed during initial scan of the range area, the Camp Navajo natural resources specialist would be notified and activities would be halted until the species are identified and the activities are cleared to proceed. If no large raptors are observed prior to range use, activities would proceed as planned. Though this visual technique would be unlikely to detect any MSOs, it could incidentally reduce the impact to the species and would aid in raising awareness of Soldiers using the range that maintaining wildlife resources at Camp Navajo is important.
  - c. Targets in firing ranges would be configured to avoid large-diameter trees and snags.
  - d. Trees left within proposed firing ranges would be monitored to assess long-term damage from training rounds. A monitoring program for forested areas within proposed ranges and SDZs may also be established to assess forest reproduction and recruitment. Monitoring would be conducted under the Land Condition Trend Analysis component of the AZARNG ITAM Program.
  - e. Roadways, staging areas, and other areas disturbed during construction activities and that would not be needed for the proposed ranges would be revegetated with native plant species.
  - f. Mechanical thinning and prescribed burning within the firebreak perimeters would continue to be conducted to minimize the risk of wildfire spreading to potential MSO habitat.
  - g. Human activities and noise disturbance in the Volunteer Canyon MSO PAC would be limited during the breeding season (1 March through 31 August) unless necessary activities, such as fire suppression, preclude this measure. All construction activities within 0.25 mile of the PAC will be conducted outside the breeding season.
  - h. Noise levels would be measured at the Volunteer Canyon PAC boundary for activities on the Infantry Squad Battle Course, Infantry Platoon Battle Course, Convoy Live Fire Range, and Multi-Purpose Machine Gun Range and would be reduced to less than 90 A-weighted in Decibels (dBA). These levels would be verified by AZARNG prior to beginning operation of the range.
  - i. Current tree densities between the PAC boundary and the Infantry Squad Battle Course and Infantry Platoon Battle Course would be maintained if necessary to keep noise levels below 90 dBA at the PAC boundary.
  - j. Camp Navajo would implement a 25-mile-per-hour (mph) speed limit on dirt roads throughout the installation, which should minimize the potential for vehicular collisions with MSOs. The speed limit is 35 mph on paved roads, but these roads are not located in MSO habitat.

### *Conclusions of the EA's Analysis*

Implementation of the INRMP at Camp Navajo would guide management of natural resources, support the military mission, and minimize environmental effects of the overall military mission, while ensuring compliance with various environmental laws. Full implementation of the plan will ensure the continued use of Camp Navajo's natural resources for military training and outdoor recreation.

The evaluation performed within this EA concludes there would be no significant adverse impact, either individually or cumulatively, to the local environment or quality of life as a result of implementing the Proposed Action; therefore, this EA's analysis determines that an Environmental Impact Statement is unnecessary to support the implementation of the Proposed Action and that a FONSI is appropriate. The Preferred Action Alternative was determined by the AZARNG to provide the best combination of land and resources management to sustain quality military training and to maintain and improve the units' readiness postures. The No Action Alternative would not fulfill the Purpose of and Need for the Proposed Action. It would limit the capability of the AZARNG to carry out its assigned mission to provide adequate training facilities and would jeopardize the proficiency and military readiness of the AZARNG. As such, this EA recommends implementation of the Preferred Action Alternative.

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### LIST OF APPENDICES FOR INRMP

All appendices including figures for this Environmental Assessment are located within the associated INRMP.

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**ACRONYMS AND ABBREVIATIONS**

4FRI	Four Forest Restoration Initiative	PAC	Protected Activity Center
AAA	Arizona Antiquities Act	PCPA	Post-closure Permit Area
ADEQ	Arizona Department of Environmental Quality	PM	Particulate Matter
AGFD	Arizona Game and Fish Department	PM <sub>10</sub>	particulates 10 microns or smaller in diameter
ANPL	Arizona Native Plant Law	SC	Species of Concern
AR	Army Regulation	SDZ	Surface danger zone
ARNG	Army National Guard	SHPO	State Historic Preservation Office
ARNG I&E	Army National Guard Installations and Environment	USACE	United States Army Corps of Engineers
ASA	Ammunition Storage Area	USDA	United States Department of Agriculture
AZARNG	Arizona Army National Guard	USC	United States Code
BMP	Best management practice	USFS	United States Forest Service
BLM	Bureau of Land Management	USFWS	United States Fish and Wildlife Service
BO	Biological Opinion		
BNSF	Burlington-Northern/Santa Fe Railroad		
CEQ	Council on Environmental Quality		
CFR	Code of Federal Regulations		
CWA	Clean Water Act		
dBA	A-weighted in decibels		
dbh	Diameter at breast height		
DESCOM	Depot System Command		
DoD	Department of Defense		
EA	Environmental Assessment		
EIS	Environmental Impact Statement		
ESA	Endangered Species Act of 1973		
EPA	Environmental Protection Agency		
FONSI	Finding of No Significant Impact		
HTMW	Hazardous Materials and Waste		
I-40	Interstate 40		
INRMP	Integrated Natural Resources Management Plan		
ITAM	Integrated Training Area Management		
IWFMP	Integrated Wildland Fire Management Plan		
MOU	Memorandum of Understanding		
Mph	Miles per hour		
MSO	Mexican spotted owl		
NAAQS	National Ambient Air Quality Standards		
NEPA	National Environmental Policy Act of 1969		
NGB	National Guard Bureau		
NHPA	National Historic Preservation Act		
NOFS	Naval Observatory Flagstaff Station		
NRHP	National Register of Historic Places		

# 1 PURPOSE AND NEED

## 2 1.1 Introduction

3 Camp Navajo provides a variety of environmental conditions and ecosystems in which to train  
4 service members of all branches. Implementation of the Arizona Army National Guard (AZARNG)  
5 training and storage mission must be conducted in a way that provides for sustainable, healthy  
6 ecosystems; complies with all applicable environmental laws and regulations; and ensures no net  
7 loss in the capability of military installation lands to support the military mission, pursuant to the  
8 Sikes Act (16 United States Code [USC] §670 *et seq.*) and the Sikes Act Improvement Act, herein  
9 referred to simply as the Sikes Act. The objective of the Sikes Act is to promote effectual planning  
10 to conserve, protect, and enhance natural resources on military installations while ensuring the  
11 concurrent preparedness of the Armed Forces that utilize those lands for training purposes.

12 The primary tool for achieving this objective is the Integrated Natural Resources Management  
13 Plan (INRMP). The INRMP outlines conservation goals to help installation commanders ensure  
14 lands remain available and in good condition to support the military mission. Cooperative  
15 conservation based on ecosystem management principles is another important component of the  
16 Sikes Act. Camp Navajo has developed partnerships with various federal and state agencies to  
17 support the management of its natural resources and regularly consults with these agencies on  
18 actions that may affect natural resources at Camp Navajo. Primary partners in implementing this  
19 plan are the United States Fish and Wildlife Service (USFWS) and Arizona Game and Fish  
20 Department (AGFD). Other partners include Department of Defense (DoD) agencies, federal and  
21 state agencies, universities, contractors, and private citizens. INRMP revisions necessitate an  
22 Environmental Assessment (EA) to assess potential environmental impacts as required by the  
23 Environmental Analysis of Army Actions (32 Code of Federal Regulations [CFR] 651).

## 24 1.2 Purpose and Need

25 The **purpose** of the Proposed Action—implementation of the INRMP at Camp Navajo in  
26 Bellemont, Arizona—is to provide a comprehensive, long-term management of the installation’s  
27 natural resources while allowing the training mission to proceed. The INRMP also includes other  
28 more specific strategic management plans at Camp Navajo, most prominently the Integrated  
29 Wildland Fire Management Plan (IWFMP) and the Forest Management Plan (**Appendix E** and **F**  
30 of the INRMP). The IWFMP serves to provide ecologically based management and planning to  
31 control fire frequency, intensity, and size on Camp Navajo lands, and it addresses the safety of  
32 firefighters, the public, and military personnel in addition to the continuation of military activities.  
33 The Forest Management Plan (AZARNG 2020) defines and directs ecologically based forest and  
34 grassland management to increase ecosystem resiliency and promote the forest’s ability to  
35 survive disturbances such as insects, disease, fire, and climate change. Taken together, the  
36 various management actions contained in the INRMP constitute both the Proposed Action and  
37 the Preferred Action Alternative, detailed herein.

38 The INRMP is the primary tool to meet outlined conservation goals. In accordance with the Sikes  
39 Act, the INRMP “shall, where appropriate and applicable,” provide for:

- 40 a) Fish and wildlife management, land management, forest management, and fish- and

- 41 wildlife-oriented recreation;
- 42 b) Fish and wildlife habitat enhancement or modifications;
- 43 c) Wetland protection, enhancement, and restoration, where necessary for support of fish or  
44 wildlife;
- 45 d) Integration of, and consistency among, the various activities conducted under the plan;
- 46 e) Establishment of specific natural resources management objectives and timeframes for  
47 the Proposed Action;
- 48 f) Sustained use by the public of natural resources to the extent that the use is not  
49 inconsistent with the needs of fish and wildlife resources management;
- 50 g) Public access to the military installation that is necessary or appropriate for the use  
51 described in (f) above, subject to requirements necessary to ensure safety and military  
52 security;
- 53 h) Enforcement of applicable natural resources laws and regulations; and
- 54 i) No net loss in the capability of military installation lands to support the military mission of  
55 the installation.

56 The **need** for the Proposed Action is to ensure natural resources are managed effectively at Camp  
57 Navajo, while allowing the training and storage mission to occur, to ensure military preparedness.

58 The Proposed Action is also needed to comply with the requirements of the 31 August 2018 DoD  
59 Directive Number 4715.03 titled Natural Resources Conservation Program. This directive  
60 provides new policy and updates policy for the integrated management of natural resources  
61 (including biological and earth resources) on property and lands managed or controlled by the  
62 DoD. The Proposed Action also needs to comply with the 2012 Army National Guard (ARNG)  
63 Directorate: Guidance for the Creation, Implementation, Review, and Revision and Update of  
64 INRMPs, which describes the actions that must be completed when revising INRMPs. In addition,  
65 this Proposed Action needs to comply with Army Regulation (AR) 200-1, Environmental Protection  
66 and Enhancement, and 32 CFR 651.

### 67 **1.3 Scope of Environmental Assessment**

#### 68 *Proposed Action*

69 The Proposed Action, the implementation of the INRMP, is the AZARNG's Preferred Action  
70 Alternative. The INRMP includes the EA, the Integrated Wildfire Management Plan, and the  
71 Forest Management Plan. The Proposed Action is detailed in Section 7 of the INRMP. Specific  
72 management goals and objectives, timing, and operation details are in Section 8 and **Appendix**  
73 **G** of the INRMP.

#### 74 *Alternative Considered*

75 In addition to the Proposed Action, the AZARNG analyzed a No Action Alternative. Under the No  
76 Action Alternative, the AZARNG would proceed with the management of natural resources at  
77 Camp Navajo utilizing an outdated and unsigned draft INRMP. The No Action Alternative will  
78 result in non-compliance with the Sikes Act.

## 79 *Site Analysis*

80 The potential environmental impacts associated with the Proposed Action are fully described in  
81 this EA. Based on the EA's analysis, it has been determined that the implementation of the INRMP  
82 would not have any significant adverse impacts on land use, recreation, air quality, noise, water  
83 resources, soil and geological resources, biological resources, cultural resources, paleontological  
84 resources, socioeconomics, environmental justice, visual resources, and hazardous materials.

### 85 **1.4 Decision-making**

86 As described in 32 CFR Part 651.5, the National Environmental Policy Act (NEPA) process is  
87 intended to provide the AZARNG planners and decision makers with a meaningful review of  
88 environmental considerations associated with a given action. The analysis set forth in this EA  
89 allows the decision makers to carefully balance the protection of these environmental resources  
90 while fulfilling the Army's essential role, which is national defense. Both environmental staff and  
91 military personnel within the AZARNG were consulted and provided guidance on the development  
92 of this EA.

93 Per amendments to 10 USC §10501, described in DoD Directive 5105.77, the National Guard  
94 Bureau (NGB) is a joint activity of the DoD (DoD 2015). NGB serves as a channel of communication  
95 and funding between the United States Army and state ARNG organizations in United States  
96 territories, states, and the District of Columbia. The ARNG is a Directorate within NGB. The Army  
97 National Guard Installations and Environment Directorate (I&E) is the division within ARNG that  
98 is responsible for environmental matters, including compliance with NEPA. The ARNG I&E  
99 Directorate, working with the AZARNG, will ultimately decide, having taken the environmental  
100 impact and mitigation measures into consideration, whether the Proposed Action should be  
101 implemented and funded.

102 The primary legislation that affects the decision-making process is NEPA, which requires potential  
103 environmental impacts of the Proposed Action are evaluated when federal funding or lands are  
104 involved. The objective of the EA is to provide the information necessary to evaluate whether the  
105 Proposed Action would produce a significant effect or not. This EA will result in one of three  
106 outcomes: to prepare a Finding of No Significant Impact (FONSI), to initiate a Notice of Intent that  
107 the AZARNG and NGB intend to prepare an Environmental Impact Statement (EIS), or to take no  
108 action on the proposal.

109 If the Proposed Action results in no significant environmental impacts, the environmental  
110 evaluations under review will be considered, documented through the FONSI, following the final  
111 EA. If the Proposed Action is selected the FONSI will be signed by the Chief, ARNG I&E,  
112 implementing the action. The INRMP (Proposed Action) will determine the most practical way to  
113 manage natural resources on Camp Navajo.

### 114 **1.5 Public and Agency involvement**

#### 115 **1.5.1 Public Review**

116 An initial draft EA was made available for public review and comment along with the INRMP from  
117 24 November 2013 to 24 December 2013. No comments were received during this time. The final

118 draft EA was made available for public review and comment along with the INRMP from 7  
119 February 2014 to 13 March 2014. In October 2015, prior to signature of the FONSI, the NGB  
120 recommended inclusion of the proposed Camp Navajo forest treatments and their environmental  
121 impacts. Updates to the final draft INRMP and INRMP EA were completed in December 2018. A  
122 draft INRMP and INRMP EA will be redistributed for public and agency review.

123 Upon final review, the AZARNG will publish and distribute the INRMP EA and FONSI for a final  
124 30-day public review and comment period. Hard copies will be made available at the Camp Navajo  
125 Environmental Office in Bellemont, Arizona and the City of Flagstaff Public Library in Flagstaff,  
126 Arizona. Digital copies will be made available via the AZARNG website for Camp Navajo at  
127 <https://dema.az.gov/army-national-guard/camp-navajo>.

### 128 **1.5.2 Agency Coordination**

129 This project was scoped to the Pueblo of Zuni, Navajo Nation, Yavapai-Apache Nation, Hualapai  
130 Tribe, Hopi Tribe, Havasupai Tribe, Fort Mojave Indian Tribe, and the Fort McDowell Yavapai  
131 Nation on 1 November 2013 via an invitation to review letter. In addition, both the initial draft and  
132 recent versions of this INRMP/EA were made available to USFWS and AGFD for agency review  
133 and comment. Stakeholders for Camp Navajo were also given opportunities to comment. This  
134 process is detailed in Section 9.2.3 of the INRMP. Comments and correspondence received  
135 during review periods are organized in **Appendix C** of the INRMP. Stakeholders for Camp Navajo  
136 include the Zuni Pueblo, Yavapai-Prescott, Navajo, Hualapai, Havasupai, Hopi, and Fort Mojave  
137 Tribes; USFWS; NGB, Northern Arizona University; Kaibab National Forest; Coconino National  
138 Forest; AGFD; Armed Forces Division; Arizona Department of Environmental Quality (ADEQ);  
139 Four Forest Restoration Initiative (4FRI); Roger's Lake Stakeholders; Coconino County; the City  
140 of Williams; and the City of Flagstaff.

### 141 **1.6 Related NEPA, Environmental, and Other Documents and Processes**

142 This document analyzed the INRMP and its associated studies as well as wildlife monitoring  
143 activities and forest inventory. Monitoring activities and studies on the effects of Camp Navajo's  
144 mission and actions have occurred over the past 20 years of the installation. These monitoring  
145 projects and the most recent 2013 forest inventory helped inform the status of the forest and  
146 sensitive species around the installation, therefore informing the impacts of actions on these  
147 resources.

148 Development and implementation of the INRMP is guided by the Sikes Act and supported by the  
149 Army's implementing guidance on INRMP requirements in section 4-3 d. (1) AR 200-1  
150 (Environmental Protection and Enhancement). Environmental analysis of the Proposed Action is  
151 mandated by NEPA and the Army's implementing regulations at 32 CFR Part 651 (Environmental  
152 Analysis of Army Actions).

153 Various other DoD, Department of Army, and NGB documents provide additional guidance for  
154 INRMP coordination and implementation. The primary guidance documents are DoD Manual,  
155 Number 4715.03 (November 2013), INRMP Implementation Manual; DoD Instruction, Number  
156 4715.03 (August 2018), Natural Resources Conservation Manual; and NGB ARNG Guidance for  
157 Creation, Implementation, Review, Revision, and Update of INRMPs (April 2012).

158 The EA for the Westside Buffer Training Area Forest Thinning and Prescribed Fire Project, Camp  
159 Navajo, AZARNG was prepared in 2006 and a FONSI was signed on 10 March 2006. This 2006  
160 EA was used as a resource for this current EA.

### 161 **1.7 Regulatory Framework**

162 NEPA was enacted to establish a process by which environmental concerns associated with  
163 federally funded and/or proposed actions can be identified. Public involvement and input are  
164 critically important elements of this process.

165 This EA is written pursuant to NEPA of 1969, as amended (NEPA, 42 USC §4321); Council on  
166 Environmental Quality (CEQ) regulations 32 CFR Part 651, and *Army National Guard NEPA*  
167 *Handbook, Guidance on Preparing Environmental Documentation for National Guard Actions in*  
168 *Compliance with the NEPA of 1969* (ARNG 2011) and the NGB-ARE Memorandum 04 April 2016,  
169 *Guidance for NEPA Compliance in Support of Natural Resource Planning Actions.*

170 This EA was prepared to comply with the CEQ regulations for implementing NEPA. A list of all  
171 applicable environmental laws and regulations relevant to the Proposed Action that are addressed  
172 in this EA can be found in Section 2.2 of the INRMP.

## 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

### 2.1 Introduction

The Proposed Action is the approval and implementation of the Camp Navajo INRMP. This EA addresses potential impacts of the Proposed Action and alternatives considered. The Proposed Action is associated with implementation of the INRMP at Camp Navajo, which provides consideration for natural resources during the planning of AZARNG construction projects, military operations, natural resources management, maintenance operations, and forest treatments, such as mechanical thinning, slash piling, and prescribed burns of the forest. This project is funded through the ARNG I&E Office for Camp Navajo, AZARNG for the fiscal years 2021 to 2026.

### 2.2 Proposed Action

Management of natural resources on Camp Navajo would be accomplished via implementation of the projects listed in **Appendix G** of the INRMP. The Proposed Action includes implementation of the Forest Management Plan (**Appendix E** of the INRMP), the IWFMP (**Appendix F** of the INRMP), and the individual projects associated with these plans. It also includes grassland restoration projects, soil restoration projects, and plans to monitor and survey for species throughout the installation.

As part of the Proposed Action, the AZARNG proposes forest treatments using a combination of mechanical thinning, hand thinning, slash piling, and prescribed fire on approximately 18,652 acres of ponderosa pine, pine-oak, and grasslands to help reduce extreme fire danger, provide a diversity of forest conditions for service member training, and improve ecosystem health (**Appendix E** of the INRMP). Treatment type varies based on current stand conditions (**Figure 15** of the INRMP) and includes group selection; intermediate, evidence-based restoration harvests; and deferral of selected areas from treatment. Forest treatments are designed to create a mosaic of varying tree sizes and densities at multiple spatial scales to meet training needs (i.e., concealment and maneuvering). Treatments would also reduce tree densities in order to decrease horizontal connectivity of tree crowns through which a crown fire could spread, reduce the risk of damage by insects and other pathogens, improve the diversity of forest habitat conditions for wildlife, improve ecosystem health, and promote forest resilience. Any existing road, firebreak, or trail may be utilized as a haul route. This may entail making improvements to haul routes when necessary. This will include but not be limited to widening of the haul routes by 15 to 30 feet, grading, adding fill, adding culverts, paving sections, tree clearing, and creating and maintaining v-ditches and water bars. Prescribed fire projects include approximately 1,603 acres within and around the post-closure permit area (PCPA), which will be broadcast burned with follow-up maintenance burns every 2 years when possible. Detailed descriptions of proposed silvicultural treatments are included in the Forest Management Plan (**Appendix E** of the INRMP).

Other significant activities under the Proposed Action include meadow and spring restoration projects around Camp Navajo. The planned restoration activities are focused on meadows around Metz Tank, Pyrotechnic Tank, Tappen Springs, and Mickle Tank (**Figure 16** of the INRMP). Restoration design is different for each area; activities include but are not limited to the relocation

40 of roads and the removal of manmade structures. Depending on the restoration design, some  
41 tanks may need to be removed in order to restore natural hydrology to these areas.

### 42 **2.2.1 Metz Tank**

43 Metz Tank, one of multiple stock tanks or water impoundment structures, is located east of  
44 Volunteer Canyon within the buffer of Camp Navajo. The restoration design for Metz Tank  
45 includes habitat restoration of the tank area and elimination of both the bisecting and southern  
46 perimeter road, with a new roadway constructed in the adjacent forest area. All areas that are  
47 subject to temporary impacts will also be restored. Habitat restoration within the tank area will  
48 include the removal of the tanks, backfilling excavated areas, grading to return these tank areas  
49 to a pre-disturbance surface topography, grading and smoothing roads that are to be abandoned,  
50 and revegetation. In addition, the active revegetation within the meadow and the areas temporarily  
51 disturbed during the construction of the new road will receive treatment.

### 52 **2.2.2 Pyrotechnic Tank**

53 To restore the area around Pyrotechnic Tank, a water impoundment located on Camp Navajo  
54 north of Roger's Lake, the restoration design calls for the elimination of the bisecting road and  
55 tank. The tank will be eliminated by first de-watering and then backfilling the depressions with  
56 remnant soil (adjacent to the tank) which was excavated when the tanks were created. The tank  
57 area will then be contoured and compacted as necessary to return the area to the original slope  
58 of the meadow. A low water channel will be created through the tank areas to allow for slow  
59 drainage of the meadow, as once occurred naturally. The low water channel will meander slightly  
60 through the tank area to recreate a natural drainage. The road crossing in the meadow will be  
61 eliminated by removing shoulder berms through grading and placing graded material in the  
62 roadbed. The road areas would then be mechanically contoured with a grader or dozer to match  
63 the topography and slope of the meadow as a whole. If necessary, the existing roadbed area will  
64 be de-compacted by ripping prior to emplacement of graded material, which allows for better  
65 water infiltration and faster plant growth. In addition to the active revegetation within the meadow,  
66 all of the areas temporarily disturbed during construction will receive treatment.

### 67 **2.2.3 Mickle Tank**

68 Mickle Tank, located in the west buffer of Camp Navajo, frequently floods the adjacent road,  
69 causing drivers to move through the forest and create additional roads. In order to minimize this  
70 disturbance, the recommendations are to create an engineered spillway for the tank berm and  
71 relocate the eastern roadway. The spillway will involve constructing an outlet structure along the  
72 tank berm on the downstream side of the tank, which will control the overflow of the tank. The  
73 tank will remain in place and provide a retention volume near existing conditions to maintain  
74 protection for the existing roadway downstream of the tank. A new road will be constructed by  
75 clearing and grubbing, subgrade preparation and placement of aggregate base course, and  
76 gravel/cinder topping. Roadside ditches will be constructed to convey runoff to a low-water,  
77 rocked, ford crossing. The road areas would then be mechanically contoured with a grader or  
78 dozer to match the topography and slope of the area as a whole. If necessary, the existing  
79 roadbed areas will be de-compacted by ripping prior to emplacement of graded material, which  
80 allows for better water infiltration and faster plant growth. All areas subject to temporary impacts  
81 will be restored.

#### 82 **2.2.4 Tappen Springs**

83 Tappen Springs is located in the east buffer of Camp Navajo. The spring is currently in a disturbed  
84 state and contains manmade features including excavated water tanks (ponds), corrugated metal  
85 pipe structures, and dirt roads that are in poor condition surrounding the spring perimeter. The  
86 berms and roads affect the natural hydrology and vegetation, hinder proper drainage, prevent  
87 native plant establishment, and lead to unnatural, soggy conditions. The goal of this restoration  
88 plan is to provide the AZARNG with specific strategies to return the spring and surrounding areas  
89 close to natural conditions and to realign, restore, or remove existing roadways in the spring's  
90 proximity. The plan includes reduction of the berms around the spring and a new roadway  
91 constructed to the north to maintain access to the west. Reduction of the tank near the spring will  
92 involve backfilling of excavated areas, grading to return these tank areas closer to a pre-  
93 disturbance surface topography, grading and smoothing roads that are to be abandoned, and  
94 revegetating of all disturbed areas. In addition to the active revegetation within the spring, all of  
95 the areas temporarily disturbed during the construction of the new road will receive invasive  
96 species treatment as needed. The tanks will be improved by removing portions of the existing  
97 tank berm and constructing a broad drainage swale east of the tank, then backfilling any  
98 depressions or adding elevation to roadways with remnant soil removed from the tank berm. A  
99 low water channel will remain from the spring to the tank area to allow for slow drainage of the  
100 spring, as occurs currently. Roads will be eliminated by removing shoulder berms through grading  
101 and placing graded material in the roadbed. The road areas would then be mechanically  
102 contoured with a grader or dozer to match the topography and slope of the area surrounding the  
103 spring as a whole. The existing roadbed areas will be de-compacted by ripping prior to  
104 emplacement of graded material, which allows for better water infiltration and faster plant growth.  
105 Once earthwork and grading are completed, habitat restoration techniques will be employed to  
106 improve habitat quality, stabilize soils, and deter future traffic usage of the spring. Habitat  
107 restoration will be accomplished through the use of native seed and plant salvage/relocation.

#### 108 **2.2.5 Meadow Restoration**

109 The meadow restoration plans use similar methods for restoring the tank and road areas. This  
110 will consist of the distribution of locally acquired native seed and salvaged plant material into  
111 areas where bare soil remains as a result of grading and earthwork. Vehicle access will be  
112 restricted in actively restored meadows possibly by blocking access with felled trees and boulders,  
113 placing signage, and training personnel on deterrence. Non-native plant establishment will be  
114 limited through qualitative observations of the restoration sites and removal of non-native plants  
115 through hand pulling or select herbicide usage depending on the severity. Additional activities will  
116 include quantitative monitoring of native plant establishment every three years, control of invasive  
117 plant species, and reseeding if necessary. Ideal time for the construction, seeding, and plant  
118 installation would occur in mid-spring to late spring depending on local conditions, seeding, and  
119 weather.

120 Meadow and spring restoration projects can be found in Section 8.2 of the INRMP and **Appendix**  
121 **G** of the INRMP.

#### 122 **2.2.6 Best Management Practices**

123 Best Management Practices (BMPs) are day-to-day management activities or techniques that are  
124 the most effective and practical means to achieving an objective while making the optimum use

125 of resources. BMPs often originate in various federal and state guidelines and are thus, often  
126 voluntary. BMPs are typically written in such a way that they offer substantial latitude for  
127 incorporation, interpretation, and site-specific applicability.

128 BMPs found within AZARNG environmental documents, including but not limited to the Integrated  
129 Training Area Management Plan, Hazardous Waste Management Plan, and Spill Prevention  
130 Control and Countermeasure Plans, would be implemented as part of the Proposed Action for  
131 this EA. Additionally, some of the BMPs from the United States Department of Agriculture's  
132 (USDA's) 4FRI, a local United States Forest Service (USFS) restoration program, would be  
133 implemented.

134 A detailed list of the BMPs that will be implemented in the INRMP's future iteration can be found  
135 in Section 7.14 of the INRMP. BMPs implemented would be those that help minimize the impacts  
136 to soil, water, and biological and cultural resources on the installation due to training operations  
137 and any natural resource treatment procedures.

## 138 **2.3 Alternatives Considered**

139 CEQ regulations require all reasonable alternatives that would fulfill the Purpose and Need for a  
140 Proposed Action to be considered. Reasonable alternatives include those that are practical or  
141 feasible from a technical and economic standpoint and support the underlying purpose of and  
142 need for a Proposed Action.

### 143 **2.3.1 Alternatives Development**

144 The criteria used in the selection of alternatives for this EA included budget constraints, time  
145 constraints, specific training needs, and regulatory compliance. As the purpose of the INRMP's  
146 implementation and this EA is to achieve Camp Navajo's mission and protect its natural  
147 resources, project alternatives were developed using screening criteria based upon the mission.  
148 The alternatives considered were the "No Action Alternative," the "Preferred Action Alternative"  
149 (the implementation of the revised INRMP and all associated projects such as a combination of  
150 restoration, prescribed burn, and thinning projects), and the implementation of continued  
151 Prescribed Burning Only Alternative, Burning and Thinning Projects Only Alternative, Restoration  
152 and Monitoring Projects Only Alternative, and a Thinning Projects Only Alternative. Alternatives  
153 were considered but eliminated if 1) they allowed for training and storage missions to continue  
154 with minimal to no interruptions (from issues such as catastrophic fire) and 2) they ensured the  
155 long-term, effective management of Camp Navajo's natural resources (**Table 2-1**) based on  
156 research described in the prior Westside Buffer Training Area Forest Thinning and Prescribed  
157 Fire Project EA and overall Camp Navajo constraints. All alternatives were eliminated except for  
158 the Preferred Action Alternative and the No Action Alternative, both of which were further analyzed  
159 for this project.

TABLE 2-1 ALTERNATIVES SCREENING CRITERIA MATRIX						
Screening Criteria	No Action Alternative (continuing with old INRMP)	Preferred Action Alternative (following new INRMP)	Restoration and Monitoring Projects Only Alternative	Burning and Thinning Projects Only Alternative	Prescribed Burning Projects Only Alternative	Thinning Projects Only Alternative
Allows training and storage missions to continue with minimal to no interruptions	No	Yes	No	Yes	No	Yes
Ensures natural resources are managed effectively	No	Yes	No	No	No	No

160 No reasonable alternatives were able to satisfy both of these screening criteria. Reasoning behind  
 161 this decision is discussed in Section 2.3.3. As such, the revision and implementation of the INRMP  
 162 is the only action considered that meets the Purpose and Need, with the No Action Alternative  
 163 being the only alternative that was analyzed and considered for this project. The results of this  
 164 comparison are shown in **Table 2-2**.

### 165 **2.3.2 Evaluated Alternatives: No Action Alternative**

166 The No Action Alternative provides a baseline against which the effects of a Proposed Action are  
 167 compared. For the purposes of this EA, the No Action Alternative is the continuation of current  
 168 management practices under the existing INRMP. Natural resources would continue to be  
 169 managed in accordance with existing directives and procedures and there would be no consistent  
 170 framework or approach for implementing natural resources programs. The No Action Alternative  
 171 serves as a benchmark against which federal actions can be evaluated. While the No Action  
 172 Alternative would not satisfy the purpose of or need for the Proposed Action, this alternative was  
 173 retained to provide a comparative baseline against which to analyze the effects of the Proposed  
 174 Action, as required under the CEQ Regulations (40 CFR Part 1502.14).

### 175 **2.3.3 Evaluated Alternatives: Preferred Action Alternative**

176 The Preferred Action Alternative was determined to be the Proposed Action. Under the Proposed  
 177 Action, management of natural resources on Camp Navajo would be accomplished via  
 178 implementation of the projects listed in **Appendix G** of the INRMP. The Proposed Action includes  
 179 implementation of the Forest Management Plan (**Appendix E** of the INRMP), the IWFMP  
 180 (**Appendix F** of the INRMP), and various meadow restoration projects across Camp Navajo. This  
 181 alternative would inherently satisfy the purpose and need as these plans. Revisions and updates  
 182 to the INRMP were developed to satisfy the previously mentioned purposes.

### 183 **2.3.4 Alternatives Eliminated**

184 Federal agencies are required by NEPA to explore and objectively evaluate resonantly feasible  
 185 alternatives that meet the Purpose and Need and briefly discuss the reasons for eliminating any  
 186 alternatives that were not developed in detail (40 CFR 1502.14). NEPA limits the range of

187 reasonable alternatives to those that fall within the agency's statutory mandate and those that at  
188 least partially serve the agency's objective. During the development of this EA, other potential  
189 alternatives were considered. These alternatives were developed by considering alternative forest  
190 treatments but were eliminated because those alternatives do not meet the Purpose and Need or  
191 were not technically or economically practical and feasible (43 CFR 46.420 (b)).

#### 192 **Restoration and Monitoring Projects Only Alternative**

193 Under this alternative, the INRMP would be implemented with only restoration projects and any  
194 monitoring or research projects applied. As this would not involve a reduction of forest density  
195 throughout the installation, this would lead to increased high-intensity fire risk, go against the  
196 overall Camp Navajo mission of providing diverse training and storage grounds for troops, and  
197 would not lead to improvement in overall health of the natural resources.

#### 198 **Burning and Thinning Projects Only Alternative**

199 Under this alternative, the INRMP would be implemented with only forest management projects.  
200 Though this would improve overall forest health and diversity, this alternative would not account  
201 for health of the diversity of ecosystems on the installation, including the meadows and  
202 grasslands. Thus, it would not accomplish Camp Navajo's goals of protecting their resources  
203 overall.

#### 204 **Prescribed Burning Projects Only Alternative**

205 Under this alternative, the INRMP would be implemented with only prescribed burn forest  
206 management projects. Because this would limit areas to be treated by prescribed fire, tree density  
207 would not be reduced to the desired and healthy stocking level throughout Camp Navajo,  
208 effectively not fulfilling either of the mission goals.

#### 209 **Thinning Projects Only Alternative**

210 Under this alternative, the INRMP would be implemented with only forest thinning projects. This  
211 alternate would treat more acres versus the Prescribed Burning Projects Only Alternate but fail to  
212 restore the historic fire regime at the installation. Not implementing prescribed fire in addition to  
213 thinning operations would fail to limit tree regeneration, a condition that created overstocked  
214 forests throughout the twentieth century. In addition, by not implementing prescribed fire, Camp  
215 Navajo would fail to reduce fuel loading for dead and down woody debris, resulting in a higher fire  
216 risk. Fuel loading is the available fuel per unit area. It would also be impossible to restore  
217 ecological function within the forested areas and the proposed meadow restoration sites by not  
218 implementing prescribed fire operations.

**2.3.5 Alternatives Impact Comparison Matrix**

<b>TABLE 2-2 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<b>Land Jurisdiction/ Use</b>	The Proposed Action would result in long-term beneficial effects on land use. The Proposed Action would create a diversity of forest conditions for training and would decrease the risk of large, high-intensity wildfires. The training land would be maintained so that the military mission can be conducted on Camp Navajo well into the future without jeopardizing the quality of the installation’s natural resources.	The No Action Alternative would result in potentially short-term and long-term adverse effects on natural resources due to the risk of large, high-intensity wildfire.
<b>Air Quality</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on air quality in the area of Camp Navajo. The installation would continue to be located within an attainment area with respect to National Ambient Air Quality Standards (NAAQS). Forest management activities would temporarily impact air quality through the prescribed fire program. These activities would also reduce the potential for larger, more intense wildfires, which disperse greater quantities of smoke.	The No Action Alternative would result in no long-term effects to air quality in the area of Camp Navajo. The risk of short-term, adverse effects on air quality resulting from a large, high-intensity wildfire would remain.
<b>Noise</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on noise levels and would increase noise levels within the vicinity of the project area. The increase would be related to forest management and meadow restoration activities.	Under the No Action Alternative, no short-term or long-term effects on noise levels are anticipated within Camp Navajo.
<b>Soils</b>	The Proposed Action and associated conservation measures would result in short-term, direct, adverse, less than significant effects to soil erosion. Forest management and natural resources activities, including meadow restoration, would have a long-term, positive effect by reducing the potential for soil erosion thorough maintaining and repairing damaged areas and decreasing the risk of large, high-intensity wildfire.	The No Action Alternative would have no short-term or long-term effects on soils within Camp Navajo. Soil erosion potential would not increase above current levels. The risk of large-scale, high-intensity fire and associated erosion would remain.
<b>Water Resources</b>	The Proposed Action would have minor, short-term, direct, less than significant effects on water resources but would not affect surface water resources in the vicinity of the action area. The Proposed Action would have a positive effect on water resources by reducing the potential for severe intensity wildfire which could cause adverse effects to water resources.	The No Action Alternative would have no short-term or long-term effects on water resources anticipated within Camp Navajo. The risk of large, high-intensity fire and associated adverse effects to water resources would remain.
<b>Biological Resources</b>		

**TABLE 2-2  
ALTERNATIVES IMPACT COMPARISON MATRIX**

Resource Area	Proposed Action	No Action Alternative
<b>Vegetation</b>	The Proposed Action would have a long-term beneficial effect on the diversity of forest conditions. The Proposed Action would provide reductions in canopy bulk density, with associated reductions in the risk of crown fires and improved forest resiliency to disturbances such as insects, disease, climate change, and wildfire. Proposed activities would have a less than significant adverse effect on local vegetation caused by construction of roads/trails and forest management. The Proposed Action would improve vegetation biodiversity, wildlife habitat, soil productivity, and watershed function.	The No Action Alternative would have no short-term or long-term effects on vegetation beyond the baseline condition. Vegetative and fuel conditions would remain conducive to crown fire, which could result in a large-scale disturbance and loss of forested area for training. Improvement in forest resiliency would not occur in the absence of disturbance.
<b>Fish and Wildlife</b>	The Proposed Action may result in potential mortality of individuals of smaller species such as rodents, reptiles, and amphibians from forest treatments and meadow restoration projects. Additional less than significant effects to wildlife may include noise disturbance and the loss of food, cover, and breeding sites due to forest treatments and meadow restoration; however, the Proposed Action would also have a positive effect on wildlife habitat by providing reductions in canopy bulk density and associated reductions in the risk of crown fires and restoring meadows to natural conditions. These effects are unlikely to substantially reduce wildlife populations in the region because of the relatively small areas affected and thus, are likely only short-term adverse effects.	The No Action Alternative would have no short-term or long-term effects on wildlife beyond the baseline condition. The No Action Alternative provides for management of biological resources opportunistically with most yearly funding prioritized to Endangered Species Act (ESA)-listed species. The risk of adverse effects on wildlife from large wildfires would remain.
<b>Mexican Spotted Owl</b>	The Proposed Action would have short-term, less than significant, adverse effects on Mexican spotted owls (MSO) in the form of habitat disturbance and loss, noise disturbance, and potential injury or death, including within designated critical habitat. A Biological Opinion (BO) for this species was issued by USFWS on 27 May 2015 ( <b>Appendix H</b> of the INRMP), which determined that the forest treatments were likely to adversely affect the MSO. Implementation of the conservation measures outlined in the BO would minimize the effects of the Proposed Action to a less than significant level.	The No Action Alternative would have no short-term or long-term effects on MSO beyond the baseline condition and would not result in additional loss of individuals or critical habitat. Conservation measures outlined within the Camp Navajo INRMP and BO would continue to be implemented to minimize disturbance and effects to MSO and designated critical habitat within the installation. The risk of adverse effects due to wildfire would remain.
<b>Bald Eagle</b>	The Proposed Action would have short-term, less than significant, adverse effect on bald eagles with the removal of potential roosting and foraging habitat and the increased noise levels within bald eagle habitat. Overall use may decrease with removal of habitat in those areas, but the Proposed Action is not likely to result in a trend toward	The No Action Alternative would have no short-term or long-term effects on bald eagles beyond the baseline condition and would not result in a trend toward federal listing or loss of viability. Conservation measures outlined within the Camp Navajo INRMP

<b>TABLE 2-2 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
	federal listing or loss of viability of the bald eagle. Conservation measures would be implemented to minimize effects of the Proposed Action. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to minimize disturbance and effects to bald eagles within the installation.	would continue to be implemented to minimize disturbance and effects to bald eagles within the installation. The risk of adverse effects due to wildfire would remain.
<b>Migratory Birds</b>	The Proposed Action may have short-term, less than significant, adverse effects to individual birds, nests, and/or eggs but would not result in a trend toward federal listing or loss of viability of any migratory bird species. Effects would be in the form of habitat disturbance and loss, noise disturbance, and potential injury or death. Conservation measures would be implemented to avoid effects of the Proposed Action.	The No Action Alternative would have no short-term or long-term effects on migratory birds beyond the baseline condition and would not result in a trend toward federal listing or loss of viability of any migratory bird species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to avoid disturbance and effects to migratory birds, nests, and eggs. The risk of short- and long-term adverse effects due to wildfire would remain.
<b>Arizona State Protected Plants</b>	The Proposed Action may result in short-term, less than significant, adverse effects to Arizona State Protected Plants, as potential habitat for plants protected under the Arizona Native Plant Law (ANPL) exists within the Proposed Action area. Potential effects are not likely to result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species.	The No Action Alternative would likely have no short-term or long-term effects on Arizona State Protected Plants beyond the baseline condition and would not result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species. The risk of adverse effects due to wildfire would remain.
<b>Federal and State Listed Species of Concern</b>	The Proposed Action would have a short-term, less than significant, adverse impact on federal and state listed species of concern (SC) (such as bats and goshawk); however, it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP and the 2015 BO ( <b>Appendix H</b> of the INRMP) would continue to be implemented throughout the installation.	The No Action Alternative would likely have no short-term or long-term effects on federal and state listed SC, as it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation. The risk of adverse effects due to wildfire would remain.
<b>Cultural Resources</b>	The Proposed Action would have less than significant effects on cultural resources. The Proposed Action contains provisions for the	The No Action Alternative would have no effect on cultural resources, but they would continue to weather

**TABLE 2-2  
ALTERNATIVES IMPACT COMPARISON MATRIX**

<b>Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
	location and preservation of cultural sites if ground-disturbing activities are proposed for unsurveyed sites. Project reviews follow the National Historic Preservation Act (NHPA) guidelines. Guidelines to avoid or reduce the adverse effect of the Proposed Action would be developed and implemented.	and erode. The risk of adverse effects due to wildfire would remain.

### 1 3 AFFECTED ENVIRONMENT

2 A brief description of the affected environment and existing conditions hereby serve as the basis  
3 for evaluating environmental impacts of the Proposed Action on Camp Navajo. To provide a  
4 foundation of relevant knowledge, natural resources management policies are often discussed in  
5 detail. Where information is redundant to the INRMP, it is included by reference.

6 Per 40 CFR 1501.7 (a)(3), environmental review may “identify and eliminate from detailed study  
7 the issues which are not significant or which have been covered by prior environmental review.”  
8 The following resources are not affected by the Proposed Action Alternative and as such are not  
9 addressed in this EA:

10 **Airspace:** The Proposed Action Alternative would not affect, or be affected by, the use military  
11 airspace or adjacent civilian airspace.

12 **Geology and Topography:** The Proposed Action Alternative would not affect, nor be affected  
13 by, geologic and mineral resources

14 **Hazardous Materials and Waste:** Hazardous materials are substances that cause human  
15 physical or health hazards (29 CFR 1910.1200). Materials that are physically hazardous include  
16 combustible and flammable substances, compressed gases, and oxidizers. Health hazards are  
17 associated with materials that cause acute or chronic reactions, including toxic agents,  
18 carcinogens, and irritants. Hazardous materials are regulated in Arizona by the ADEQ, which is  
19 concerned with health and safety issues involving hazardous waste management in Arizona.  
20 Under the Resource Conservation and Recovery Act, along with state statutes and codes, the  
21 department has the authority to monitor and direct businesses that may generate, transport, or  
22 dispose of hazardous waste in Arizona. Camp Navajo has multiple sites contaminated with  
23 perchlorate, volatile organic compounds, semi-volatile organic compounds, and residuals from  
24 explosive waste on its installation; however, these are monitored, have limited public access, and  
25 pose little to no health risk per ADEQ (<https://azdeq.gov/node/4884>).

26 **Socioeconomics:** The closest residential dwellings are located in the City of Bellemont, which is  
27 across Interstate 40 (I-40). Some businesses are also directly adjacent to Camp Navajo, while  
28 the city of Flagstaff is located approximately 12 miles to the east. The Proposed Action Alternative  
29 would not affect the nearby population, housing, employment, or the local economy, as no  
30 additional personnel or facilities would be added to the installation. Any benefit from the increased  
31 forest management activities would be negligible and temporary.

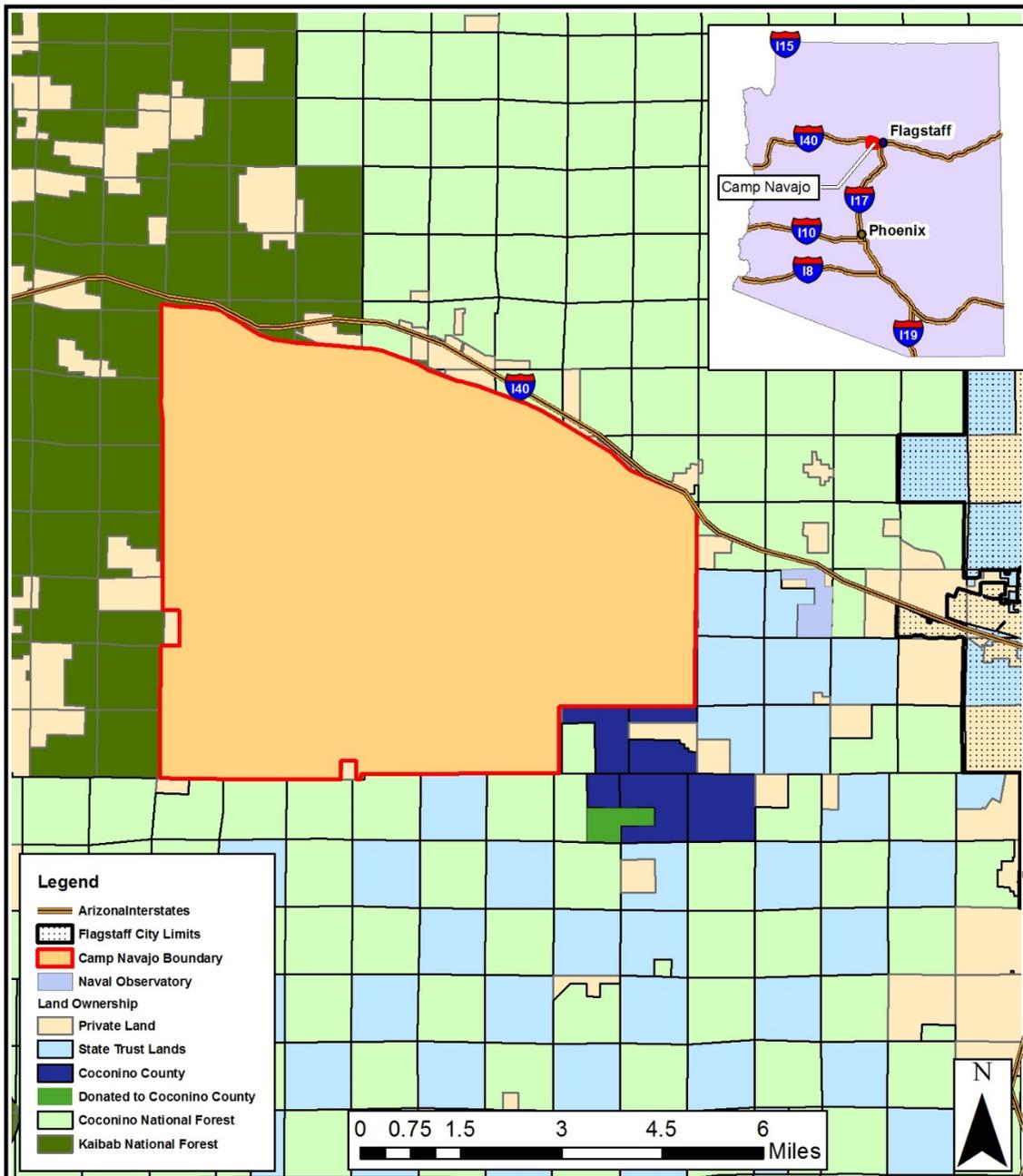
32 **Environmental Justice:** No disproportionate health or environmental effects on minorities or low-  
33 income populations or communities would occur as a result of the Proposed Action Alternative.

34 **Infrastructure:** No public transportation routes or means would be affected. The roads at the  
35 Camp Navajo facility are not available to the general public. This is consistent with AZANRG's  
36 planning.

37 The resources that could be affected by the Proposed Action are land use, soils, air quality, and  
38 greenhouse gas emissions, water resources, the biotic environment, and cultural resources.

**39 3.1 Location Description**

40 Camp Navajo is located in north-central Arizona, 12 miles west of Flagstaff, 17 miles east of  
41 Williams, and adjacent to the small community of Bellemont. The facility is located along the I-40  
42 corridor (**Figure 1**). Camp Navajo is owned by the DoD and licensed to the AZARNG. It is located  
43 in a small topographic basin of the San Francisco Plateau within south-central Coconino County,  
44 between the Coconino and Kaibab national forests. The installation is comprised of approximately  
45 28,413 acres used to support the ARNG training and storage missions. This does not include 60  
46 acres located along the northern boundary of the installation that was deeded by the United States  
47 Army Corps of Engineers (USACE) to the Arizona State Veteran's Administration in 2013 for the  
48 construction of a Veteran's Cemetery. While the majority of the land is federally owned  
49 (approximately 28,397 acres), the State of Arizona owns approximately 15 acres that include the  
50 Bellemont Armory and the Facility Maintenance shop (discussed in detail in the INRMP, Section  
51 3.1).



**Camp Navajo, Belmont, Arizona  
Vicinity Map and Land Ownership**

**FIGURE  
1**

### 53 3.2 Land Use

54 Camp Navajo is owned by DoD and licensed to the AZARNG for training purposes. According to  
55 the 2011 *Camp Navajo Training Site Standard Operating Procedure* publication, the primary  
56 mission of Camp Navajo is “to operate an Army National Guard Major Training Area which  
57 provides installation support services for enhancing combat readiness to the Arizona National  
58 Guard as well as other DoD personnel and units training at the installation.” Additionally, Camp  
59 Navajo serves as a training site for both active and reserve components of all services. As an  
60 ARNG training site, it supports the Arizona Regional Training Institute, Officer Candidate School,  
61 and Military Occupation Specialty and Non-Commissioned Officer Education System courses.  
62 Approximately 15,911 acres (56 percent of the installation) of Camp Navajo are available for  
63 training.

64 Camp Navajo is also used for munitions and missile storage missions. This is a holdover mission  
65 from the past, when the facility operated as the Navajo Army Depot, an active Army installation.  
66 The receipt, storage, shipping, and maintenance of various DoD commodities, predominantly  
67 munitions and missile motors continue to be a part of the installation’s mission. Within the area  
68 dedicated to ordnance-related operations, approximately 11,378 acres (40 percent of the  
69 installation), known as the Ammunition Storage Area (ASA) is used for munitions/missile storage.  
70 Storage facilities consist of 788 ammunition igloos, 12 J-Standard aboveground ammunition  
71 magazines, general purpose warehouses, and a rocket motor transfer facility used to transfer  
72 rocket motors from rail/truck transportation to intra-installation conveyances that transport rocket  
73 motors to long-term storage. The igloos are used for long-term storage of conventional  
74 ammunition and missile components, while Y-sites are open-air sites in the ASA Limited Area that  
75 are used to provide temporary or long-term storage facilities for items that do not require covered  
76 storage.

77 The remaining 1,124 acres (4 percent of the installation) are former Demolition Area and  
78 Cantonment Area and are therefore closed to training or storage activities.

79 A historical function of Camp Navajo was the destruction of obsolete or damaged ammunitions.  
80 This occurred in the south-central portion of the installation in an area known as the “Open  
81 Burn/Open Detonation” area (now known as the PCPA). This area is currently closed to all  
82 activities.

83 A large portion of the land surrounding Camp Navajo is undeveloped and managed by the USFS  
84 and Arizona State Land Department (**Figure 1**). Camp Navajo is bounded on the west by the  
85 Kaibab National Forest, on the south by the Coconino National Forest, and on the east by Arizona  
86 State Trust land. There are also several small tracts of private land adjacent to Camp Navajo  
87 mixed in with the public lands. The northern boundary is shared with the Burlington-  
88 Northern/Santa Fe Railroad (BNSF) Railroad. To the north of the railroad is a string of commercial  
89 zoned parcels, I-40, and the small housing development of Bellemont. The public is allowed  
90 access to the buffer area (the regions outside of the ASA) if they are issued a special civilian  
91 license for hunting or are accompanied by a Camp Navajo or AZARNG employee. Hunting,  
92 camping, and firewood cutting use is open to active and retired military service members,  
93 employees of AZDEMA, and tenant operations on Camp Navajo.

### 94 3.3 Air Quality

95 In compliance with the Clean Air Act (42 U.S.C. 7401-7671q), as amended, the Environmental  
96 Protection Agency (EPA) developed standards for common pollutants throughout the country that  
97 injure public health or harm the environment. These pollutants are called criteria pollutants and  
98 are used as indicators of air quality. The six criteria pollutants are ozone, carbon monoxide,  
99 nitrogen dioxide, sulfur dioxide, particulate matter equal to or less than 10 microns (PM<sub>10</sub>), and  
100 lead. The EPA established a maximum concentration for each of these pollutants above which  
101 adverse effects on human health may occur. Geographic areas that meet the NAAQS for these  
102 pollutants are called attainment areas. If a locality persistently exceeds the threshold for a criteria  
103 pollutant, it is defined as a non-attainment area. The air quality monitoring stations nearest to  
104 Camp Navajo are at Flagstaff Middle School, approximately 12 miles east of the installation, and  
105 Sycamore Canyon, approximately 10 miles southwest of the installation. Data from these stations  
106 are collected by the ADEQ. Camp Navajo is within an air quality attainment zone for all criteria  
107 pollutants using NAAQS (ADEQ 2015). Ambient concentrations of the criteria pollutants are low  
108 due to the installation's distance from major pollution sources. The Phoenix metropolitan area,  
109 approximately 110 miles south of Camp Navajo, is the closest non-attainment for PM<sub>10</sub>, ozone,  
110 and carbon monoxide.

### 111 3.4 Noise

112 Noise is defined as unwanted sound or, more specifically, as any sound that is undesirable  
113 because it interferes with communication, is intense enough to damage hearing, or is otherwise  
114 annoying (FICON 1992).

115 Given the relatively remote location of Camp Navajo, ambient noise levels are low. Unchanging  
116 noise sources within the installation consist of vehicular traffic (primarily within the Cantonment  
117 Area), firing range use, on-going maintenance activities, hunting (typically in the fall), forest  
118 management activities (mechanical thinning), and occasional helicopter landings within the  
119 installation. Outside installation boundaries, the primary source of noise is vehicular traffic along  
120 I-40 and train traffic along the BNSF Railroad, both of which are located north of the installation.  
121 Because of its remote location, there are minimal noise-sensitive receptors (e.g., residential  
122 communities or schools) affected by current operations at the installation. An operational noise  
123 management plan for the AZARNG conducted in 2013 determined that the installation's small  
124 arms firing and demolition operations provided the strongest source of noise on the site. However,  
125 the study confirmed that except for select occasions when 40-pound Shape and Cratering charge  
126 operations would occur (which are rare), noise from Camp Navajo rarely reaches or affects  
127 sensitive land uses nearby (AZARNG 2013a).

### 128 3.5 Geology, Topography, and Soils

129 A total of 17 soil units were identified on Camp Navajo (**Figure 5, Appendix A** of the INRMP).  
130 The residual soils, formed from the basaltic and limestone bedrock, are predominantly clays. Soils  
131 overlying the alluvium and other unconsolidated materials are varying proportions of sands, silts,  
132 and clays (USATHAMA 1979). A more thorough discussion of soil erosion, productivity, and  
133 contamination on Camp Navajo is presented in Section 4.3 of the INRMP.

### 134 3.6 Water Resources

135 Water resources analyzed in this EA include surface water, wetlands, and groundwater. The  
136 quality and availability of water and potential for flooding are addressed in this section. More  
137 details on water resources on Camp Navajo are presented in Section 4.4 of the INRMP.

#### 138 3.6.1 Surface Water

139 Surface water on the installation is limited. There are no permanent, naturally occurring streams  
140 or lakes that occur on the installation (**Figure 6, Appendix A** of the INRMP). There are several  
141 small, perennially spring-fed, manmade ponds as well as many small springs and stock ponds  
142 (EBASCO 1990).

#### 143 3.6.2 Wetlands

144 Wetlands are defined by the USACE and EPA as “those areas that are inundated or saturated by  
145 surface or groundwater at a frequency and duration sufficient to support, and that under normal  
146 circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil  
147 conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (33 CFR  
148 328.3 [b]; 1984). Jurisdictional wetlands are those subject to regulatory authority under Section  
149 404 of the Clean Water Act (CWA) and Executive Order 11990, *Protection of Wetlands* (EO 1977).  
150 Camp Navajo has approximately 100 acres of potential wetlands and regulated water bodies  
151 consisting of palustrine/open water (35 acres), palustrine/emergent and upland mosaic (25 acres)  
152 wetlands, and 35 miles of stream class riverine/intermittent (Mauney et al. 2001; SWCA 2015)  
153 (**Figure 6, Appendix A** of the INRMP). All of these areas could potentially be regulated as Waters  
154 of the United States under Section 404 of the CWA (WES 2001).

#### 155 3.6.3 Groundwater

156 The regional water table occurring in the Coconino-Supai sandstone aquifer is encountered below  
157 the installation at approximately 1,340 feet below ground surface (EBASCO 1990). This is the  
158 primary water source for the City of Flagstaff and southern Coconino County. Camp Navajo also  
159 has a 2,080-foot-deep well established in 2002.

#### 160 3.6.4 Floodplains

161 Other issues relevant to water resources include watershed areas affected by existing and  
162 potential runoff and hazards associated with 100-year floodplains. Floodplains are belts of low-  
163 level ground present on one or both sides of a stream channel and are subject to either periodic  
164 or infrequent inundation by flood water. Inundation dangers associated with floodplains have  
165 prompted federal, state, and local legislation to limit development largely of recreation and  
166 preservation activities in these areas. Several areas at Camp Navajo have been designated as  
167 100-year floodplains by the Federal Emergency Management Agency. Sites meeting the criteria  
168 for 100-year floodplain designation are concentrated in two areas located near the Cantonment  
169 Area. These include areas near Atherton Lake (a wetland area on the installation), Pipe Springs,  
170 and along intermittent streams flowing toward Volunteer Canyon (**Figure 6, Appendix A** of the  
171 INRMP). Flooding is rarely a problem on Camp Navajo due to the extensive network of open  
172 ditches, culverts, and storm sewer piping system, which is typically adequate to accommodate  
173 surface runoff.

### 174 3.7 Biological Resources

175 This section includes the potential impacts that the Proposed Action or Proposed No Action  
176 Alternative could have on local fauna, flora, and habitats.

#### 177 3.7.1 Vegetation

178 Camp Navajo is located in a basin-like valley within the San Francisco lava plateau. Camp Navajo  
179 is located predominately in the Rocky Mountain (Petran) Montane Conifer Forest biome (122.3 in  
180 Brown [1994] classification), with some areas containing plants characteristic of the Great Basin  
181 Shrub-Grassland biome (142.2 in Brown [1994] classification) (CEMML 1997; Moore and  
182 Covington 1998; TRIES 1996).

183 The eastern section of the buffer area is a mixture of grasslands and ponderosa pine (*Pinus*  
184 *ponderosa*). The western and southwestern boundaries, excluding Volunteer Mountain and  
185 Volunteer Canyon, are dominated by ponderosa pine and Gambel oak (*Quercus gambelii*).  
186 Vegetation communities represented on Camp Navajo are depicted in **Figure 7 (Appendix A)** of  
187 the INRMP. More detailed descriptions of vegetation communities at the installation are found in  
188 Section 5.2 of the INRMP.

189 The forested area of the installation comprises approximately 19,018 acres. Pure ponderosa pine  
190 forest dominates the forested acres, occurring on 11,766 acres. Pine-oak occurs on 6,562 acres  
191 and mixed conifer occurs on 690 acres. Grassland occurs on approximately 9,455 acres.  
192 Southwestern ponderosa pine is a drought-tolerant species whose structure and composition was  
193 historically shaped by frequent, low-intensity surface fires, varying climatic cycles, infrequent  
194 regeneration pulses, and insect outbreaks. This interplay of factors created pre-Euro-American  
195 forests dominated by open grassy areas with "clumpy" tree distribution. During the past 120 years  
196 of Euro-American settlement, fire exclusion and grazing have led to more dense forest conditions  
197 and encroachment of pine into naturally occurring grasslands. The forested area is predominantly  
198 at high risk of large, high-intensity wildfires (e.g., active crown fire) of severe intensity and high risk  
199 of bark beetle infestation.

#### 200 3.7.2 Fish and Wildlife

201 The AZARNG coordinates with a variety of other agencies and interested parties to identify and  
202 manage wildlife on Camp Navajo. Results of previous studies are used to manage wildlife on  
203 Camp Navajo in order to maintain the land for military training.

204 Significant progress has been made in identifying and inventorying non-game species on Camp  
205 Navajo; for example, installation-wide surveys have been conducted for mammals, birds, fish,  
206 amphibians, reptiles, insects, crustaceans, and mollusks (**Appendix D** of the INRMP).

207 The AGFD is responsible for the inventory and monitoring of game species in the state. Camp  
208 Navajo's natural resources managers and other personnel assist AGFD in surveying wildlife  
209 populations on the installation. Through these efforts, special habitat areas have been identified  
210 on the installation; such areas include pronghorn and deer fawning grounds and elk calving  
211 grounds. Additional information on wildlife and game species is available in Section 5.4 of the  
212 INRMP.

213 Per the 2013 Memorandum of Understanding (MOU) between the DoD and USFWS, the DoD

214 implements INRMPs on their installations that are in accordance with a variety of natural resource  
215 laws, including the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection  
216 Act. More details on Camp Navajo's particular conservation measures in regard to this can be  
217 found in the INRMP Section 7.

### 218 **3.7.3 Special Status Species**

219 Threatened and endangered species are federally protected plants and animals that are in danger  
220 of becoming extinct without protection. These species may be rare because of specialized habitat  
221 needs or habitat destruction. The ESA (16 USC 1531 *et seq.*), as amended, protects listed species  
222 against killing, harming, harassment, or any action that may damage their habitat. A portion of  
223 Camp Navajo is located within designated critical habitat for the endangered MSO (*Strix*  
224 *occidentalis lucida*). Additional information on plant and wildlife SC is found in Section 5.5 of the  
225 INRMP.

226 The State of Arizona does not have state-specific endangered species protections for plants or  
227 animals and therefore, abides by federal laws and listings. In lieu of this list, AGFD identifies SC  
228 in Arizona and consolidates information about their status and distribution throughout the State of  
229 Arizona through the state's Natural Heritage Program. Special status species known or with the  
230 potential to occur on or in the vicinity of Camp Navajo were identified during a review of AGFD  
231 and USFWS databases and are listed in Section 5.5 of the INRMP (**Table 3** of the INRMP).

232 Many native plant species are afforded protection under the ANPL (ARS 3-901 *et seq.*) and cannot  
233 be removed from any lands without permission of the owner and a permit from the USDA. Lessees  
234 of state or federal land must obtain specific authorization from the landlord agency to remove  
235 protected native plants.

### 236 **3.7.4 Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act**

237 With the exception of domestic pigeons, house sparrows, the Eurasian collared dove, and  
238 European starlings, the majority of birds in the project vicinity are protected under the Migratory  
239 Bird Treaty Act of 1918, as amended (16 USC 703-712) and the Bald and Golden Eagle Protection  
240 Act. Activities that result in take of migratory birds or eagles are prohibited without authorization  
241 from the USFWS (Executive Order 13186). Each federal agency taking actions that have, or are  
242 likely to have, a measurable negative effect on migratory bird populations is directed to develop  
243 and implement, within 2 years, a MOU with the USFWS that shall promote the conservation of  
244 migratory bird populations. Camp Navajo must ensure that environmental analyses of federal  
245 actions required by the NEPA or other established environmental review processes evaluate the  
246 effects of actions and agency plans on migratory birds, with emphasis on SC. The DoD, USFWS,  
247 and state and wildlife agencies, acting through the Association of Fish and Wildlife Agencies,  
248 developed a MOU for preparing, reviewing, revising, updating, and implementing INRMPs for  
249 military installations.

250 The 2013 MOU between the DoD and USFWS was established under the authority of the Sikes  
251 Act, as amended, 16 U.S.C. 670a-670f, which requires the Secretary of Defense to carry out a  
252 program to provide for the conservation and rehabilitation of natural resources on military  
253 installations in cooperation with the USFWS and states. The MOU took effect upon the date of  
254 final signature, 29 July 2013, and will continue for ten years. The parties will meet six months prior  
255 to the expiration of this MOU to discuss potential modifications and renewal terms.

## 256 **3.8 Cultural Resources**

### 257 **3.8.1. Camp Navajo Culture History**

258 Arizona has been occupied for at least 12,000 years, starting with the Paleoindian period and  
259 continuing through the Archaic, Ceramic, and Historic periods. Paleoindian cultural remains tend  
260 to be sparse, whereas the Archaic period is well represented and relatively uniform on the  
261 Colorado Plateau (Huckell 1996), which includes Camp Navajo. During the Ceramic period, local  
262 cultural traditions emerge across much of the state and populations generally increase. The  
263 Ceramic period in and near Camp Navajo is manifested by Cohonina and Sinagua sites.  
264 Protohistoric and historic Native American groups that occupied the Bellemont area (Camp  
265 Navajo) include the Hualapai and the Navajo. Extensive Euro-American occupation of the region  
266 postdates AD 1860 and was influenced by ranching, logging, and military activities.

267 Camp Navajo was originally developed in 1942 as the Navajo Ordnance Depot to serve as a  
268 storage and distribution site for military equipment and supplies during World War II. The location  
269 of the depot near the Atchison, Topeka, and Santa Fe Railroad line and the Route 66 highway  
270 allowed for efficient transfer of equipment and supplies. As the war escalated, the installation  
271 served as a supply warehouse and distribution center for the United States military in the Pacific.  
272 The wartime activity stimulated expansion of the facility that continued into the 1950s.

273 Camp Navajo also served as a prisoner-of-war camp near the close of World War II. Austrian  
274 prisoners from the prisoner-of-war camp at Florence were transferred to the Navajo Ordnance  
275 Depot, making it the only camp in the United States with exclusively Austrian prisoners. The  
276 Navajo Ordnance Depot provided storage for chemical munitions until 1958 and was later  
277 designated a Defense Supply Agency Depot in 1967. In 1971, the facility was renamed the Navajo  
278 Army Depot Activity under the command of the Pueblo Army Depot in Colorado.

279 In 1982, AZARNG took over operational control of the Navajo Army Depot Activity and adopted  
280 the Army Depot System Command (DESCOM) mission, which included the receipt, storage,  
281 shipping, maintenance, and disposal of munitions and also used the facility to train AZARNG  
282 units. The Base Realignment and Closure Act technically closed the Navajo Army Depot Activity  
283 in 1988, but DESCOM continued to fund ammunition storage activity until 1992. By 1993, the  
284 Navajo Army Depot Activity ceased to operate as a federal ammunition storage depot and was  
285 renamed Camp Navajo. At this time, the installation became an AZARNG training area.

286 Cultural resources on Camp Navajo are managed and protected through historic preservation  
287 laws, regulations, and other provisions, including but not limited to the NHPA, the American Indian  
288 Religious Freedom Act, the Archaeological Resources Protection Act, and the Native American  
289 Graves and Repatriation Act.

## 4 ENVIRONMENTAL CONSEQUENCES

### 4.1 Introduction

This section forms the scientific and analytic basis for the comparison of alternatives, providing a clear basis for choice between reasonable alternatives. This section identifies the direct, indirect, and cumulative effects of the Proposed Action and the No Action Alternative on each of the resource areas previously described in the Affected Environment section. Based on the description of the affected environment presented in Section 3 of this EA and Section 6 of the INRMP, this section discusses potential environmental impacts related to implementation of the Proposed Action and the No Action Alternative. This EA considers the potential short- and long-term effects of the alternatives. As the Proposed Action is the implementation of the revised INRMP, this section focuses on the effects related to the projects described in the INRMP, which primarily are the forest treatments and meadow restorations.

### 4.2 Land Use

#### 4.2.1 Effects of the Proposed Action

Into the near future, the principal activities on Camp Navajo will remain receipt, storage, shipping, maintenance of commodities, and annual and weekend training for DoD units and Service Members.

Forest treatments would improve forest resiliency. Resiliency increases the ability of the forest to survive natural disturbances such as insects, disease, fire, and climate change. The current risk of large, high-intensity wildfires would be reduced. This would reduce the potential for major disruption of activities in support of the military mission. The diversity of forest conditions would improve Service Member training opportunities and provide for a diversity of wildlife, including special status species. Reducing the threat of large, high-intensity fire on Camp Navajo, which could quickly spread off the installation, would benefit the surrounding communities, the Naval Observatory Flagstaff Station (NOFS), and private lands that would be impacted directly from fire and smoke and indirectly from post-fire erosion and potential changes in land use.

Implementation of the Proposed Action would maintain the quality of training lands so that the military mission can be conducted on Camp Navajo well into the future without jeopardizing the quality of the installation's natural resources. Therefore, the Proposed Action would result in long-term, beneficial effects on land jurisdiction and use in Camp Navajo.

#### 4.2.2 Effect of the No Action Alternative

Under the No Action Alternative, training would continue on the installation and natural resources management would continue in a limited capacity, as there would be no forest treatments or meadow restoration. Risk of large, high-intensity wildfires would remain and integration of the military mission with natural resources management would be less efficient. The No Action Alternative would result in potential, long-term, less than significant, adverse effects to forest health and to land jurisdiction and use on Camp Navajo.

### 38 **4.3 Air Quality**

#### 39 **4.3.1 Effects of the Proposed Action**

40 Implementation of the Proposed Action would have minor, short-term, direct, less than significant,  
41 adverse effects on air quality within the area of Camp Navajo. Forest and grassland treatments  
42 would generate sporadic, temporary, and localized emissions of PM (dust) and gaseous exhaust  
43 from vehicle and heavy equipment operation. Windy conditions could increase dust dispersal in  
44 construction and high traffic areas (pedestrian and vehicular). Prescribed burns for wildfire  
45 prevention and management activities would produce smoke (PM equal to or less than 2.5  
46 microns in diameter, which is a subset of the PM<sub>10</sub> category) during prescribed burns, but the fires  
47 would be managed and smoke dispersal would be temporary. Smoke sensitive areas such as the  
48 community of Belmont and I-40, which borders the installation's northern perimeter, and NOFS,  
49 which is approximately 2 miles away, would likely be temporarily affected by the smoke from  
50 wildfire prevention and management activities because of their distance from the action areas.  
51 Ambient PM<sub>10</sub> concentrations are unlikely to be measurable during wildfire management activities.

52 Prescribed burns would be performed in accordance with ADEQ Annual and Daily Burn Plans.  
53 Prescribed burns would be managed to reduce smoke impacts on sensitive receptors in the  
54 vicinity such as the community of Belmont, Sycamore Canyon Wilderness, and MSO protected  
55 habitats. Smoke dispersal would be minimized by conducting prescribed burns during favorable  
56 weather conditions and periods of adequate ventilation. Wildfire management activities would  
57 reduce the potential for larger, more intense, unplanned wildfires, which disperse greater  
58 quantities of smoke and are difficult to control.

59 The Proposed Action would not increase current levels of criteria pollutants at Camp Navajo or  
60 the surrounding region, and the installation would continue to be located within an attainment area  
61 with respect to NAAQS.

#### 62 **4.3.2 Effects of No Action Alternative**

63 Implementation of the No Action Alternative would not change current levels of criteria pollutants  
64 or immediate effects on air quality at Camp Navajo. However, because of the potential for stand-  
65 replacing wildfires, this alternative could have indirect, short-term, less than significant adverse  
66 effects in the future. Under the No Action Alternative, wildfires would be expected. Aggressive fire  
67 control efforts would reduce the amounts of smoke generated, but conditions would be less than  
68 ideal and sufficient amounts of smoke would likely be produced to temporarily cause non-  
69 attainment of air quality standards.

### 70 **4.4 Noise**

#### 71 **4.4.1 Effects of Proposed Action**

72 Implementation of the Proposed Action would have short-term, less than significant, adverse  
73 effects on noise sensitive receptors. The Proposed Action would increase noise levels within the  
74 vicinity of forest management activities. As the AZARNG Statewide Noise Operational  
75 Management Plan details, the noise created by Camp Navajo's current operation activities are  
76 generally compatible with the surrounding environment. The anticipated increase in noise related  
77 to forest operations would be minor as, given the remote location of Camp Navajo, there are no

78 sensitive receptors near the proposed forest treatment areas; therefore, the Proposed Action is  
79 not anticipated to increase noise above the baseline.

#### 80 **4.4.2 Effects of No Action Alternative**

81 Under the No Action Alternative, noise levels would remain unchanged from current levels. The  
82 No Action Alternative may have some short-term, less than significant, adverse effects on noise  
83 due to wildlife suppression if no action is taken to minimize fire risk, as wildlife suppression often  
84 involves helicopters and other noise sources.

### 85 **4.5 Geology, Topography, and Soils**

#### 86 **4.5.1 Effects of the Proposed Action**

87 Implementation of the Proposed Action would have minor, adverse, short-term, less than  
88 significant, direct effects on soil erosion. Soil erosion has not been an extensive problem within  
89 Camp Navajo in the past. Tree thinning and prescribed fire would occur on 17,750 acres. Erosion  
90 potential could increase in highly disturbed areas and in areas where vegetation would be  
91 removed. Standard erosion control measures (as outlined in the Arizona Department of  
92 Transportation's 2012 guidelines [ADOT 2012] and the general USDA's 4FRI BMPs) will be used  
93 during forest treatment and meadow restoration activities to minimize soil loss and transport.  
94 Some of these measures include restricting timing of logging to dry and frozen conditions,  
95 installation of silt fences and water bars, revegetating, and restricting vehicles to established  
96 roads and trails. On-going erosion control measures along all roads/trails, frequently used training  
97 sites, and construction sites will continue to follow guidelines established in the Camp Navajo  
98 INRMP. Roads/trails, if needed, will be maintained with V-shaped bar ditches, water bars, water  
99 crossings, and culverts. Highly disturbed areas, including areas where trees have been removed,  
100 will be evaluated, maintained, and revegetated as needed. Native plant species will be used for  
101 revegetation.

102 Prescribed burns will be conducted during periods that would produce less intensity and/or "cool"  
103 burns. Cool burns are prescribed fires set when only ground-cover fuels and some ladder fuels  
104 are likely to burn, which reduces fuel loading. Cool burns remove understory trees and shrubs,  
105 reduce vertical fuel continuity and total fuels, create mineral-soil seedbeds, stimulate growth of  
106 shrubs and herbaceous plants, and enhance nutrient cycling. By decreasing vertical fuel  
107 continuity, the potential for crown fires to start and spread also decreases. Altogether, prescribed  
108 burns ultimately aid soil retention. Collectively, cool burns reduce the potential for large, high-  
109 intensity wildfires and aid in nutrient cycling and soil retention.

#### 110 **4.5.2 Effects of No Action Alternative**

111 Under the No Action Alternative, soil erosion potential would not increase above current levels.  
112 The No Action Alternative would have no short-term effects on soil productivity but could have  
113 major, negative, indirect, long-term effects. Implementing the No Action Alternative would, in the  
114 short term, keep soil productivity levels as they are now. Longer term, the existing high fire hazard  
115 could result in stand-replacing wildfires that would burn hot and substantially reduce soil  
116 productivity. Soil nutrients may be directly volatilized and lost from the system under high heat.  
117 Soil productivity could also be reduced because most soil microorganisms could be killed under

118 high heat. This would likely lead to higher soil water repellency (hydrophobicity) that limits water  
119 infiltration and increases surface runoff and erosion (Neary 2004).

## 120 **4.6 Water Resources**

### 121 **4.6.1 Effect of Proposed Action**

122 Implementation of the Proposed Action would have minor, adverse, short-term, less than  
123 significant, direct effects on water resources. The meadow restoration projects would aim to  
124 restore the historic and natural hydrological conditions and likely benefit an array of wildlife and  
125 plants. Only meadow restoration activities would occur within or adjacent to a wetland area.  
126 However, vehicles and equipment used during meadow restoration could be a potential source of  
127 water contaminants. Implementation of the Proposed Action would involve the disturbance of 5  
128 acres or more of land, requiring a Stormwater Pollution Prevention Plan, which will incorporate  
129 the employment of pollution prevention practices during the meadow restoration projects in  
130 addition to revegetation and soil erosion prevention measures used to stabilize disturbed land.

131 Nine intermittent streams are located within the Proposed Action areas. Currently, roads/trails  
132 cross these streams in several places. Culverts and erosion control measures will be used to  
133 stabilize streams and minimize disturbance. Standard prevention and control measures will be  
134 used to contain and remediate potential contamination of soil and water resources in the area.

135 BMPs, as outlined in Section 4.9, would continue to minimize the effects of all activities within the  
136 installation on surface water and groundwater resources. Groundwater resources would not be  
137 affected by the Proposed Action. Implementation of the Proposed Action with associated BMPs  
138 would reduce impacts on surface water resources in the action area to a negligible level. The  
139 Proposed Action may also provide long-term, beneficial impacts on water resources, as the  
140 meadow restorations overall will likely provide restoration of natural hydrological conditions to the  
141 area.

### 142 **4.6.2 Effect of No Action Alternative**

143 Under the No Action Alternative, BMPs would continue to minimize the effects of on-going  
144 activities within the installation on surface water and groundwater resources, and no new activities  
145 would be introduced. Therefore, the No Action Alternative would not affect surface water  
146 resources.

147 The No Action Alternative would have no immediate effects on the water resources of Camp  
148 Navajo, but it could have an indirect, less than significant, short-term effect on the watershed  
149 hydrology. Short-term increases in surface runoff, peak discharge, erosion, and downstream  
150 sedimentation would be expected if high-intensity wildfires were to occur (Campbell et al. 1977).

## 151 **4.7 Biological Resources**

### 152 **4.7.1 Effects of Proposed Action**

153 The Proposed Action provides for the management of faunal and floral resources by using an  
154 ecosystem management approach. The Proposed Action provides for inventorying and  
155 monitoring of flora and fauna as well as studies to inform an adaptive management approach

156 which is central to ecosystem management.

### 157 **Vegetation**

158 Forest treatments in the Proposed Action will lead to increased forest resiliency and function.  
159 Resiliency increases the ability of the forest to survive disturbances such as insects, disease, fire  
160 (including fires resulting from training activities), and climate change. The Proposed Action will  
161 improve vegetation biodiversity, wildlife habitat, soil productivity, and watershed function while  
162 maintaining the Soldier training mission. Tree removal and prescribed burning would reduce  
163 canopy bulk density and live fuels, break up fuel continuity, and thus reduce the risk of large, high-  
164 intensity wildfire which could impact training ranges and facilities. Overall, fire behavior models  
165 run in conjunction with the Proposed Action, estimated an 88 percent decrease in predicted active  
166 crown fire, a 41 percent decrease in passive fire, and a 23 percent increase in surface fire  
167 (Horncastle et al. 2011). The fuel reduction treatments would make wildfires easier to manage for  
168 suppression resources and reduce the risk of large, high-intensity wildfires.

169 The Proposed Action would improve the diversity of tree sizes by retention of pre-settlement trees,  
170 reduction in the number of mid-size trees, and the creation of openings for development of  
171 seedlings. The proposal will provide a diversity of tree densities beneficial for wildlife habitat,  
172 forest resiliency, and Soldier training. Within the training areas proposed for treatment,  
173 approximately 5,609 acres of dense forest conditions would become more open and suitable for  
174 troop maneuverability and 1,170 acres would remain dense for concealment. Future cover for  
175 concealment of Soldiers will be created by the establishment and growth of ponderosa pine trees  
176 in openings created by forest thinning, particularly group selection treatments. The Proposed  
177 Action will meet the goal of providing a diversity of forest conditions for Soldier training.

178 The risk of bark beetle epidemic will be lessened by reducing tree densities and improving the  
179 health and vigor of individual trees, making them more resistant to beetle attack. Dwarf mistletoe  
180 infection occurs in isolated areas, and the number of infected trees will be reduced; however, in  
181 some areas, infected trees are targeted for retention to develop quality snags which will improve  
182 wildlife habitat.

183 Treated areas would experience temporary reductions in herbaceous ground cover resulting from  
184 disturbance associated with mechanical harvesting equipment and burning operations on 18,652  
185 acres. BMPs would be implemented to reduce the level of temporary disturbance. These practices  
186 include limiting harvest activities to dry and/or frozen conditions and minimizing soil disturbance  
187 by limiting the amount of surface area impacted by skid trails and landings. The vigor of  
188 herbaceous ground cover would improve from open spaces created between tree canopies, the  
189 creation of openings for new pine seedlings, and broadcast burning. At Camp Navajo, vigor of the  
190 herbaceous component in a ponderosa pine stand was found to be greatly improved in the spring  
191 following implementation of broadcast burning. The stand was mechanically harvested to an  
192 average stand residual basal area of 50 square feet per acre in 2006 and broadcast burned in the  
193 fall of 2012 (Bruce Buttrey, Natural Resources Manager—Forester pers. comm. 2013). Similar  
194 results are expected to occur from the proposed tree density reductions and broadcast burns.

195 The deferral treatments include areas of steep slopes, high munitions and of explosive concern  
196 (MEC) potential, and areas in which a high canopy cover is desired. Traditional mechanical

197 harvesting would not occur on slopes greater than 40 percent. These deferral treatments would  
198 provide habitat for density-dependent wildlife species, concealment for Soldier training activities,  
199 and diversity of forest structure. Disturbances from forest treatments would have the indirect  
200 impact of increasing the potential for the establishment and spread of invasive and noxious weed  
201 species. Noxious weeds may act as aggressive colonizers of disturbed areas where the native  
202 vegetation has been removed. Therefore, disturbances would provide opportunities for invasive  
203 and noxious weeds to quickly establish. Once established, noxious and invasive weeds may  
204 displace native plant species, resulting in a shift in plant species composition and loss of  
205 biodiversity. Monitoring for invasive and noxious weeds would follow standard measures. If  
206 noxious weeds are found, control and eradication measures would be implemented as outlined in  
207 the AZARNG Integrated Pest Management Plan (AZARNG 2013b).

208 Measures would be taken to minimize any adverse effects on vegetation, and monitoring would  
209 follow standard measures in the Camp Navajo INRMP and the Forest Management Plan. A more  
210 detailed analysis of effects is documented in the Silviculture Specialist Report, which is included  
211 in the Administrative Record found at the Environmental Management Office at Camp Navajo.  
212 Overall, the proposed action is expected to have a long-term positive effect on vegetation.

### 213 **Fish and Wildlife**

214 The Proposed Action would result in direct and indirect effects on fish and wildlife and associated  
215 habitat. The magnitude of effects depends on a number of factors, including the type and duration  
216 of disturbance, species of wildlife present, time of year, and implementation of recommended  
217 conservation measures and required mitigation measures. It is not expected that the Proposed  
218 Action would lead to any of the species abandoning their use of Camp Navajo or the nearby  
219 vicinity or changes in population trends. Noise disturbances caused by forest treatment operations  
220 may disturb wildlife in the area. When a sound source arouses an animal, the disturbance may  
221 affect metabolic rates by increasing activity levels. This increased activity can deplete energy  
222 reserves (Larkin 1996). Noisy human activity can cause raptors to expand their home ranges, but  
223 birds often return to normal use patterns when human activity ceases (Larkin 1996). Such  
224 expansions in home ranges could affect the fitness of individual birds and their ability to reproduce  
225 successfully and raise young. This increase in noise levels will be temporary and only in the  
226 vicinity of the forest treatments and meadow restoration activities.

227 The Proposed Action may lead to the injury or direct mortality of some individuals. Burrowing  
228 species and species with limited mobility would be most affected during forestry operations and  
229 meadow restoration activities. Increased vehicular traffic levels due to increased use and access  
230 of roads/trails would increase the potential for mortality to wildlife species from vehicle strikes.  
231 However, speed limits are low throughout Camp Navajo (35 miles per hour [mph] on paved roads  
232 and 25 mph on dirt roads/ trails) and the likelihood of injury or death would be minor.

233 Indirect effects due to displacement of wildlife would also occur as a result forest treatment  
234 operations and meadow restoration activities. In response to the increase in human activity (e.g.,  
235 equipment operation, vehicular traffic, and noise), wildlife may avoid or move away from the  
236 sources of disturbance to other habitats. This avoidance could result in underutilization of the  
237 physically unaltered habitats adjoining the disturbances. The net result would be that the

238 desirability of habitats to wildlife near the disturbances would be decreased, and previous  
239 distributional patterns would be altered. The habitats would not support the same level of use by  
240 wildlife as before the onset of the disturbance. Once the forest treatment operations and the  
241 meadow restoration activities are completed, wildlife may resume their use of the habitat.

242 Current forest conditions favor wildlife species that use dense closed canopy forests with little  
243 vegetative and structural diversity. The proposed forest treatments would create a diversity of  
244 forest conditions throughout the installation. This would result in negative effects on some wildlife  
245 species but would have a positive effect on others. Installation-wide reduction of high-intensity  
246 wildfires would have a positive long-term effect on all species. Measures to protect large trees  
247 and downed logs, snags, and oaks would be used during prescribed burning when possible, thus  
248 maintaining important habitat for many wildlife species.

249 To minimize possible negative effects of the Proposed Action, biologists with AGFD were  
250 consulted with in regard to habitat needs for Merriam's turkey (*Meleagris gallopav merriami*),  
251 Abert's squirrel (*Sciurus aberti*), American pronghorn (*Antilocapra americana*), and other species  
252 of state conservation concern described in the State Wildlife Action Plan (AGFD 2012). Long-term  
253 research and annual surveys that were conducted by Camp Navajo and AGFD biologists provided  
254 additional guidance on development of the proposed forest treatments. These included impacts  
255 of forest treatments on snag retention and recruitment, and occupancy and movement patterns  
256 for turkey, bats, squirrels, songbirds, elk, pronghorn, northern goshawk, and winter raptors  
257 including bald eagles. Adaptive management would be employed as additional research on Camp  
258 Navajo and the surrounding areas is completed and the data becomes available. Support  
259 documentation and data from these studies and surveys are available in the Administrative  
260 Record.

261 Wildlife corridors of local and regional importance for spatial and temporal movements of species  
262 such as Merriam's turkey, elk, mule deer, pronghorn, black bear, and mountain lion will be  
263 maintained under the Proposed Action. Evidence-based restoration would reduce tree densities  
264 in and around existing grassland habitat, while group selection treatments would create more  
265 open forest conditions and provide additional movement pathways through Camp Navajo for  
266 pronghorn. Deferred areas would provide movement corridors and core habitat for species that  
267 prefer more dense forest conditions. Overall, the Proposed Action would have short-term, less  
268 than significant, adverse effects on fish and wildlife.

### 269 **State of Arizona Protected Plants**

270 Even though Camp Navajo consists primarily of federal land, the AZARNG follows the ANPL as  
271 a general BMP. The Proposed Action may disturb potential habitat or individual plants protected  
272 under the ANPL. Most of these species have evolved in a fire-adapted ecosystem. Currently, on  
273 Camp Navajo, threats to these species include the risk of catastrophic fire, encroachment of  
274 ponderosa pine into openings, high canopy cover (preventing sunlight from reaching the forest  
275 floor), and accumulations of surface fuels such as litter and duff that prevent the establishment of  
276 grasses and forbs. Therefore, special status plant species would likely benefit from initial forest  
277 treatments and on-going maintenance burns. A reduction in surface fuel loads would allow for  
278 expansion of existing populations and establishment of new populations.

279 The Proposed Action may result in short-term, less than significant, adverse effects on Arizona  
280 protected plants. The Proposed Action could limit the proliferation of special status plant species  
281 directly through trampling and indirectly through soil compaction and the spread of invasive weeds  
282 during forest treatment and meadow restoration activities. These potential effects are not likely to  
283 result in a trend toward listing under the ESA or loss of population viability. BMPs outlined in the  
284 Camp Navajo INRMP would continue to be implemented throughout the installation to minimize  
285 effects on protected plants.

### 286 **Special Status Species**

287 In general, effects of the Proposed Action on special status wildlife species and their habitats  
288 would be similar to those discussed in the preceding sections for vegetation communities and  
289 wildlife. However, these effects can be more severe for special status plant and wildlife species  
290 because the distribution and abundance of many of these species are limited in the action area  
291 and surrounding region.

### 292 **Bats**

293 Bats considered in this analysis include Allen's lappet-browed bat (*Idonycteris phyllotis*), western  
294 small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), occult little brown bat  
295 (*Myotis occultus*), fringed myotis (*myotis thysanodes*), and long-legged myotis (*Myotis volans*).  
296 The proposed forest treatments may remove or disturb potential foraging and roosting habitat for  
297 bats, but it would not likely result in a trend toward ESA listing or loss of viability of any of the  
298 species. Forest treatments could have short-term, less than significant, adverse effects on the  
299 species of bats found within the treatment area and possibly those directly adjacent. However, by  
300 reducing the risk of stand-replacing fires and by maintaining key habitat components, the  
301 implementation of the Proposed Action would likely have positive, long-term, direct and indirect  
302 effects on these species. BMPs outlined in the Camp Navajo INRMP would continue to be  
303 implemented throughout the installation to minimize potential effects such as preserving all large  
304 snags with exfoliating bark.

305 Adaptive management would be used during the implementation of the Proposed Action to  
306 minimize effects on bats. Short-term disturbance caused by smoke from prescribed fire and noise  
307 from heavy equipment would be inevitable, but long-term benefits to roosting and foraging habitat  
308 would likely result in an overall benefit to bats.

### 309 **Mexican Spotted Owl**

310 The Proposed Action would result in potential impacts to the federally-listed, threatened MSO.  
311 Effects may include habitat degradation, noise disturbance, and a very low likelihood of direct  
312 injury or mortality. These effects are not likely to jeopardize the continued existence of the MSO  
313 or destroy or adversely modify its designated critical habitat. A detailed analysis of the  
314 environmental effects on the MSO and conservation measures that would be taken to minimize  
315 impacts from the Proposed Action can be found in the BO (27 May 2015) issued by USFWS  
316 (**Appendix H** of the INRMP). Camp Navajo will consult with the UFSWS on any INRMP projects  
317 that deviate from what was consulted on and that have the potential to affect the MSO.

318 The proposed forest treatments include improvements to habitat for the MSO as well as decrease  
319 the risk of high-intensity wildfires. These will result in major, long-term, beneficial impacts for the  
320 MSO as well as other biological resources on Camp Navajo.

321 For the purpose of evaluating incidental take of MSOs from the Proposed Action, incidental take  
322 can be anticipated as either the direct fatality of individual birds or the alteration of habitat that  
323 affects behavior (e.g., breeding or foraging) of birds only temporarily or to such a degree that the  
324 birds are considered lost as viable members of the population and thus "taken." Birds  
325 experiencing only temporary or short-term effects may fail to breed, fail to successfully rear young,  
326 or raise fewer fit young; longer-term disturbance may result in owls deserting the area because  
327 of chronic disturbance or because habitat no longer meets the owl's needs. USFWS anticipates  
328 that the Proposed Action is reasonably certain to result in incidental take of MSOs. However, it is  
329 difficult to quantify the number of individual owls potentially taken because 1) dead or impaired  
330 individuals are difficult to find and losses may be masked by seasonal fluctuations in  
331 environmental conditions; 2) the status of the species could change over time through  
332 immigration, emigration, and loss or creation of habitat; and 3) the species is secretive and  
333 information is rare regarding the number of owls occupying a Protected Activity Center (PAC)  
334 and/or their reproductive status. For these reasons, incidental take will be attributed at the PAC  
335 level. Actions outside PACs will generally not result in incidental take because it is not reasonably  
336 certain that MSOs are nesting and roosting in areas outside of PACs. This determination may be  
337 modified in cases when areas that may support spotted owls have not been adequately surveyed  
338 in the past but are reasonably certain MSOs are present.

339 Overall, the Proposed Action may result in short-term, less than significant, adverse effects to  
340 MSO with the implementation of the required conservation measures described in the BO (27  
341 May 2015) issued by USFWS. AZARNG will continue to consult with both USFWS and AGFD to  
342 minimize the impacts of on-going and future actions to federally-listed species. Conservation  
343 measures outlined in the Camp Navajo INRMP would continue to be implemented throughout the  
344 installation to minimize potential effects.

#### 345 **Bald and Golden Eagle**

346 The proposed forest treatments could have a positive overall effect on the number of large trees  
347 and snags available for roosting and perching. The Proposed Action would emphasize the  
348 retention of large trees and snags, and efforts would also be made to recruit new large trees by  
349 reducing competition from surrounding smaller trees. In response to the heightened levels of  
350 human activity associated with forest treatments and increased noise levels, bald eagles  
351 (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) may avoid or move away from  
352 the sources of disturbances to nearby habitats. This could result in temporary underutilization of  
353 the physically unaltered habitats. Vehicular traffic will increase within the area during forest and  
354 grassland management activities. Even with increased traffic levels, potential collisions of eagles  
355 with vehicles are highly unlikely. The Proposed Action is not likely to result in a trend toward federal  
356 relisting or loss of viability of bald and golden eagles in the region. The Proposed Action would  
357 result in short-term, less than significant effects on bald and golden eagles.

**358 Navajo Mexican Vole**

359 Proposed forest treatments, removal of encroaching pine into wet meadows and grasslands, would  
360 provide additional habitat and improve existing habitat in most areas for the Navajo Mexican vole  
361 (*Micotus mexicanus*). Implementation of the Proposed Action would not likely result in a trend  
362 toward ESA listing or loss of viability of the species. Impacts would be minor.

**363 Migratory Birds**

364 Implementation of the Proposed Action would result in potential threats to migratory birds in the  
365 form of habitat loss and degradation, noise disturbance, and potential injury or death. A variety of  
366 migratory birds may nest, forage, and roost throughout the Proposed Action area. Migratory bird  
367 nesting, foraging, and roosting habitat may be lost during forest treatments. Disturbance may  
368 occur in the form of mechanical removal of habitat, noise disturbance, and on-going human  
369 activities. Noise disturbance due to installment activities and increased human activity caused by  
370 implementation of the Proposed Action may disturb migratory birds in the area. Physiological  
371 effects may include temporary or permanent shifts in the hearing threshold, masking of breeding  
372 songs that can inhibit reproduction, increased respiration and heart rate, and increased  
373 corticosteroid levels (Barber and Francis 2013). Behavioral responses include birds becoming  
374 alert and turning toward the sound source, fleeing from the sound source, changing activity  
375 patterns, (e.g., interrupting feeding), abandoning nests, or changing habitat use (Barber et al.  
376 2010). If the changes are sufficiently severe, the health and survival of an individual animal may  
377 be reduced. Habituation to noise disturbance over time may decrease these negative responses  
378 (Larkin 1996).

379 Implementation of the Proposed Action may result in injury or death of migratory birds and  
380 potential disturbance or loss of nest sites in the area. There is the possibility for harvesting  
381 equipment to crush nests or eggs, but this will be minimized by conducting pre-operation surveys  
382 for breeding birds and avoiding nests until young fledge from the nest. Effects of forest treatments  
383 are similar to those described above for wildlife. Changes in forest structure and density and  
384 prescribed burns may reduce components that are important to the habitat of some migratory  
385 birds but improve conditions for others. Overall fire management practices serve to prevent stand-  
386 replacing fires and generally benefit all bird species.

387 Implementation of the Proposed Action may affect individual birds, nests, and/or eggs but would  
388 not likely result in a trend toward federal listing or loss of viability of any migratory bird species.  
389 The DoD and USFWS have agreed under a 2013 MOU to collaboratively promote the  
390 conservation of migratory birds and their habitats (USFWS 2013). Specific measures found within  
391 the INRMP for migratory birds would be implemented to minimize or prevent impacts from the  
392 Proposed Action.

393 A query of USFWS's Information for Planning and Consultation identified the following birds of  
394 conservation concern as potentially breeding in the project area:

- 395 • Bald eagle (*Haliaeetus leucocephalus*)
- 396 • Common black-hawk (*Buteogallus anthracinus*)
- 397 • Golden eagle (*Aquila chrysaetos*)
- 398 • Grace's warbler (*Dendroica graciae*)

- 399 • Lewis's woodpecker (*Melanerpes lewis*)
- 400 • Pinyon jay (*Gymnorhinus cyanocephalus*)
- 401 • Red-faced warbler (*Cardellina rubrifrons*)
- 402 • Rufous hummingbird (*Selasphorus rufus*)
- 403 • Virginia's warbler (*Vermivora virginiae*)

404 Construction activities occurring during the breeding season (15 March to 15 August) could  
405 potentially impact nesting migratory birds through indirect or direct take resulting from bird  
406 sensitivity to noise and human activity causing them to abandon the nest or nest destruction. In  
407 order to minimize impacts to migratory birds, a preconstruction survey to identify active bird nests  
408 will be conducted if construction occurs during the breeding season. No specific construction  
409 activities are planned for the current INRMP revision during the breeding season. The tank  
410 restoration projects are to be conducted outside of the breeding season and thus, are expected  
411 to only have short-term, less than significant effects on migratory birds.

#### 412 **4.7.2 Effect of the No Action Alternative**

413 Under the No Action Alternative, management of faunal and floral resources using an ecosystem  
414 management approach would continue; however, special status species management would be  
415 based on outdated information and would not include provisions for updated wildlife studies. The  
416 No Action Alternative would result in beneficial impacts to the biological resources on Camp  
417 Navajo, although the beneficial impacts would be less than those for the Proposed Action. Tree  
418 densities would not be reduced under this alternative. The risk of active crown fire and mortality  
419 from bark beetles would remain high. A lack of diversity of forest conditions would remain in the  
420 absence of environmental disturbances. Tree growth would continue to be slow, and health and  
421 vigor of the trees would continue to decline due to competition from excess tree density. Grasses,  
422 shrubs, and forbs would continue to decline in vigor and growth with no new openings in the  
423 canopy created. Mortality of long-lived trees would occur at an increasing rate, adding to a high  
424 fire hazard potential.

425 The No Action Alternative would result in minor short-term and potentially long-term changes to  
426 biological resources beyond the baseline condition in which on-going operations affect plants,  
427 animals, and special status species at Camp Navajo. On-going measures to document, study,  
428 and manage species and habitat through the provisions of the INRMP at Camp Navajo would  
429 continue to help minimize impacts on biological resources. Existing wildfire suppression strategy  
430 and efforts would continue; however, the potential for impacts resulting from large-scale wildfires  
431 of severe intensity and bark beetle infestations would remain high.

### 432 **4.8 Cultural Resources**

#### 433 **4.8.1 Effect of Proposed Action**

434 Criteria outlined in regulations for Protection of Historic Properties, which implement Section 106  
435 of the NHPA, were used to assess effects on cultural resources. Those regulations stipulate that  
436 "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the  
437 characteristics of a historic property that qualify the property for inclusion in the National Register  
438 of Historic Places (NRHP) in a manner that would diminish the integrity of the property's location,

439 design, setting, materials, workmanship, feeling, or association” (36 CFR 800.5). Three findings  
440 can be made:

- 441 • No Historic Properties Affected—There are no historic properties within the area of  
442 potential effects or the undertaking will have no effect, either harmful or beneficial, on  
443 historic properties within the area of potential effects.
- 444 • No Adverse Effect—There is an effect, but the effect would not diminish the integrity of a  
445 property’s characteristics that make the property eligible for the NRHP.
- 446 • Adverse Effect—There is an effect, and that effect could diminish the historical integrity  
447 of the characteristics that make a property eligible for the NRHP.

448 Adverse effects on historic properties include, but are not limited to the following:

- 449 • Physical destruction of or damage to all or part of the property
- 450 • Removal of the property from its historic location.
- 451 • Change of the character of the property’s use or the physical features within the property’s  
452 setting that contribute to its historic significance.
- 453 • Introduction of visual, atmospheric, or audible elements that diminish the integrity of the  
454 property’s significant historic features.
- 455 • Neglect of a property that causes its deterioration, except where such neglect and  
456 deterioration are recognized qualities of a property of religious and cultural significance to  
457 an American Indian Tribe or Native Hawaiian organization.
- 458 • Transfer, lease, or sale of property out of federal ownership or control without adequate  
459 and legally enforceable restrictions or conditions to ensure long-term preservation of the  
460 property’s historic significance.

461 The Proposed Action does not detail any specific impact to the cultural resources at Camp Navajo.  
462 In unforeseen circumstances, the mitigation measures will be used to avoid or minimize impacts  
463 to cultural resources. The Proposed Action contains provisions for the location and preservation  
464 of cultural sites if ground-disturbing activities are proposed for un-surveyed sites. In the event of  
465 the inadvertent discovery of a cultural resource, AZARNG will take measures to protect the find  
466 from disturbance, assess the significance of the discovery, and implement appropriate mitigation  
467 measures for the resource. The Proposed Action could result in an adverse effect on properties.  
468 AZARNG will work with the State Historic Preservation Office (SHPO) to minimize or avoid those  
469 impacts. Any natural resources management activities proposed in the INRMP that may impact  
470 cultural resources would go through the NHPA Section 106 consultation process with the Arizona  
471 SHPO before any undertaking occurred potentially impacting historic properties eligible or listed  
472 on the NRHP or those historic properties not yet surveyed. Each activity in the INRMP would be  
473 accordance with all applicable federal and state cultural resources requirements and would be  
474 coordinated through the AZARNG Environmental Office. As all projects will be reviewed by the  
475 Arizona SHPO and Tribes, no short- or long-term environmental impacts are anticipated as a  
476 result of the Proposed Action.

477 Consultation letters describing the Proposed Action were submitted to the Pueblo of Zuni, Navajo  
478 Nation, Yavapai-Apache Nation, Hualapai Tribe, Hopi Tribe, Havasupai Tribe, Fort Mojave Indian  
479 Tribe, and the Fort McDowell Yavapai Nation on November 1, 2013, in accordance with the 2011  
480 ARNG NEPA Handbook. Additional letters describing the revised Proposed Action were sent to  
481 the Tribes on, XXXX X, 2020. Overall, the Proposed Action is anticipated to have no adverse  
482 effects on cultural resources.

#### 483 **4.8.2 Effects of No Action Alternative**

484 Under the No Action Alternative, ground disturbance associated with forest thinning and  
485 prescribed burning of 18,652 acres, and other proposed INRMP projects, would not occur. The  
486 risk of damage to cultural resources from a large, high-intensity wildfire would remain.

#### 487 **4.9 Mitigation Measures and Best Management Practices**

488 BMPs will be implemented to minimize some of the adverse environmental effects from the  
489 Proposed Action (**Appendix J** of the INRMP).

490 AZARNG would continue to implement federal, state, and local regulations, as well as the  
491 measures, programs, and Interim Procedures outlined in the Camp Navajo INRMP (**Appendix K**  
492 of the INRMP) and Section 2.3.4 of this document, to minimize the potential effects of forest  
493 management and meadow restoration activities on environmental resources.

494 No mitigation measures will be required under the Proposed Action, though implementation of the  
495 Proposed Action will require conservation measures to minimize effects on the MSO (which are  
496 protected under the ESA). Reasonable and prudent conservation measures will minimize the  
497 project's effects on the MSO, which are outlined in the BO issued on 27 May 2015 by the USFWS  
498 (**Appendix H** of the INRMP).

#### 499 **4.10 Cumulative Effects**

500 Cumulative impact is defined as the impact on the environment which results from the incremental  
501 impacts of the Proposed Action when combined with other past, present, and reasonably  
502 foreseeable future projects in an affected area. Cumulative impacts can result from minor but  
503 collectively substantial actions undertaken over a period of time by various agencies (federal,  
504 state, or local) or persons (40 CFR 1508.7). In accordance with NEPA, a discussion of cumulative  
505 impacts resulting from projects on-going, recently completed, or anticipated is required. **Table 4-**  
506 **1** details this discussion.

507 Present and future actions within and surrounding Camp Navajo that are likely to occur include  
508 urban growth and development, recreation, road construction, fuels reduction treatments,  
509 ecosystem restoration projects, livestock grazing, bald eagle and MSO research and surveys,  
510 remediation and closure activities within the PCPA area, military training activities, and activities  
511 associated with the daily operation of Camp Navajo. Future actions also will include expansion of  
512 training facilities. Due to climate change, the Southwest is also expected to have increased  
513 temperatures and changes in precipitation in upcoming years. This will increase the need to deal  
514 with and minimize wildland fire risk in the future at Camp Navajo. Most activities surrounding  
515 Camp Navajo would occur within lands managed by other federal agencies (USFS and ARNG)

516 and would be subject to the NEPA process and consultation requirements established under  
517 Section 7 of the ESA and Section 106 of the NHPA.

518 During the draft and final review periods, agencies and Tribal governments were specifically  
519 requested to submit current and future projects in order to analyze cumulative effects. Apart from  
520 the AGFD, no agencies submitted projects as requested. The AGFD response, rather than specify  
521 individual projects, maintained that hundreds of projects statewide were planned (too many to  
522 detail). The Proposed Action, in concert with other present and future wildlife and habitat  
523 management projects, will have positive cumulative effects because the benefits of these  
524 management activities are compounded by cooperation with adjacent stakeholders. All wildlife  
525 and habitat management projects at Camp Navajo enjoy cooperation and consultation with both  
526 the AGFD and USFWS.

#### 527 **4.10.1 Forest Treatments**

528 Recent past, current, and reasonably foreseeable future forest treatments on Camp Navajo and  
529 adjacent lands have and will continue to provide reductions in canopy bulk density (primarily of  
530 trees greater than 18 inches diameter at breast height [dbh]), increase the diversity of forest  
531 conditions, reduce the risk of active crown fires, and improve forest resiliency to disturbances such  
532 as insects, disease, and wildfire.

533 Prior to the establishment of the installation in 1942, land use was predominately grazing and  
534 timber harvesting. Heavy harvests of mature trees by logging railroads occurred primarily between  
535 1924 and 1928. This resulted in the removal of 2,000 to 8,000 board feet per acre of timber (NADA  
536 1987). Trees also were removed for building purposes when the installation was established.  
537 Minimal active forestry management occurred from the time the installation was established in  
538 1942 until the late 1950s. A record of the timber harvests overseen by the military is available in  
539 the Administrative Record, with most activity occurring between the 1950s and 1960s. Past forest  
540 management activities have contributed to the lack of vegetative structural diversity and high fire  
541 risk due to lack of removal of trees greater than 18 inches dbh.

542 More recent forest treatments implemented from 2003 to 2009 have focused on removal of trees  
543 greater than 18 inches dbh. These treatments improved the diversity of forest conditions in the  
544 west buffer of the installation, but there is a need for forest treatments on the remainder of the  
545 forested acres. The treatments are expected to result in a predicted 88 percent decrease in active  
546 crown fire, 41 percent decrease in passive fire, and a 23 percent increase in surface fire on the  
547 installation. This will result in lower resistance to control for fire suppression and less disruption  
548 of military training.

549 Mechanical thinning occurred within the west buffer on approximately 968 acres from 2010 to  
550 2015 through implementation of the West Side Timber Sale. Final inspection was completed in  
551 December 2015. Tree density reductions included thinning of trees between 5 to 18 inches dbh,  
552 which helped reduce fire risk and create a diversity of forest conditions. In addition, the Tornado  
553 Fuel Reduction Project of Camp Navajo (854 acres) was completed in October 2012. This project  
554 also reduced fuel loading and fire risk by removing storm-damaged material resulting from  
555 tornados which occurred in October 2010. The contract required removal of all storm-damaged  
556 material down to a 4-inch top, diameter inside bark at least 10 feet long. In addition, pre-

557 commercial thinning (removal of ladder fuels) occurred on 584 acres in the west buffer and the  
558 Tornado Fuel Reduction Area in 2013. Prescribed burning of 115 acres also occurred in the west  
559 buffer in 2012. These treatments reduced fire risk; improved the vegetative structural diversity,  
560 health, and vigor of trees/herbaceous vegetation; and improved forest resiliency on approximately  
561 13 percent of the 19,018 forested acres of Camp Navajo.

562 Removal of storm-damaged material (resulting from tornados in 2010) has been completed on  
563 Arizona State Trust Land adjacent to the southern boundary of Camp Navajo. The Department of  
564 Forest and Fire Management has and will continue to oversee thinning operations south and east  
565 of Camp Navajo on Arizona State Trust Lands, primarily for forest restoration.

566 The Elk Tank Timber Sale within the west buffer is nearing advertisement. It is designed to  
567 mechanically thin 298 acres within the west buffer to develop nesting and roosting habitat for the  
568 MSO. This is in accordance with the ARNG's FONSI, Westside Buffer Training Area Forest  
569 Thinning and Prescribed Fire Project, Camp Navajo, Bellemont, Arizona, signed on 10 March 2006  
570 by Gerald I. Walter, Colonel, United States Army, Chief, Environmental Programs Division.

571 Approximately 13,712 dense forested acres are proposed for mechanical treatment in the  
572 Proposed Action. The proposed treatments will provide a greater diversity of tree sizes and  
573 densities, improved vigor and health of trees and herbaceous plants, and a more resilient forest  
574 on approximately 72 percent of the forested acres at Camp Navajo.

575 The largest forest restoration project in the nation includes the collaboration of four national forests  
576 in Arizona (USFS 4FRI website: <https://www.fs.usda.gov/4fri>): Coconino, Kaibab, Tonto, and  
577 Apache-Sitgreaves national forests. The project spans 2.4 million acres and is titled the Four  
578 Forest Restoration Initiative (also known as 4FRI). As of January 2020, Phase 1 of 3 is nearing  
579 completion and collectively has treated the forest with either mechanical thinning, prescribed fire,  
580 or both on over 800,000 acres; some of these lands are in the near vicinity of Camp Navajo.

<b>TABLE 4-1 CUMULATIVE EFFECTS</b>					
<b>Resource</b>	<b>Past Actions</b>	<b>Present Actions</b>	<b>Proposed Actions</b>	<b>Future Actions</b>	<b>Cumulative Effect</b>
<b>Land Jurisdiction/ Use</b>	Heavily used as a labor camp, primarily within the Indian Village portion. Heavily thinned between 1924 to 1928 by logging railroads.	Use of area for training, occasional hunting and camping; no effects to Storage Mission.	Continued use of area for training, possible reduction of camping and hunting because of safety concerns, negligible effects to Storage Mission. The diversity of forest conditions would be improved for Soldier training.	Possible increase in training use as guard units grow.	Possible increase of training use of the area, consistent with past and present use.
<b>Air Quality</b>	Effects dissipated.	Minimal dust effects during training use, and Storage Mission operations quickly dissipated.	Potential increase of dust emissions during construction and training, increase in smoke emissions during forest prescribed fires; emissions would not significantly increase criteria pollutants. Forest management activities would reduce the potential for large, high-intensity wildfires, which disperse greater quantities of smoke.	Potential increase in dust emissions during training use and from local forest management and range construction activities, not likely to affect criteria pollutant levels above standards.	Would not affect criteria pollutant levels above standards; installation would continue to be located in an attainment area with respect to NAAQS.
<b>Noise</b>	Effects dissipated.	Increase in noise levels during training use and Storage Mission operations, which are temporary and of short duration. No sensitive noise receptors in the area.	Increase in noise levels from current use during forest treatments, range construction, and training. Use periods would remain the same.	Potential increase in noise levels if additional guard troops use area for training. No sensitive noise receptors are likely to be built in the vicinity of the training area	Noise levels would likely increase but would not likely affect sensitive noise receptors.

<b>TABLE 4-1 CUMULATIVE EFFECTS</b>					
<b>Resource</b>	<b>Past Actions</b>	<b>Present Actions</b>	<b>Proposed Actions</b>	<b>Future Actions</b>	<b>Cumulative Effect</b>
				because of its location within the installation and distance from heavily populated areas.	
<b>Soils</b>	Effects dissipated.	Increase in erosion during training use and Storage Mission operations (vehicle traffic increase); effects are minimal and minimized by measures outlined in the Camp Navajo INRMP.	Potential increase in erosion during forest treatments, range construction, and training use; conservation measures in the Camp Navajo INRMP would be implemented to reduce effects. High erosion potential resulting from large, high-intensity wildfires would be reduced.	Erosion potential would remain the same as the existing conditions, and conservation measures outlined in the INRMP would continue.	Potential increase in erosion during training use. Adaptive management would modify conservation measures through future INRMP updates to maintain training and natural resources conservation.
<b>Water Resources</b>	Wetlands were created when streams were diverted in the past; stream resources were affected.	Minimal disturbance to streams and wetlands.	Increased disturbance to streams within action areas; minimal effect to wetlands. Conservation measures within INRMP would be implemented to reduce effects. The vehicles used during forest treatments could increase soil erosion, thereby increasing the potential for sedimentation.	Disturbance levels would remain the same as the existing conditions, and conservation measures outlined in the INRMP would continue to be implemented.	Potential increase in disturbance during training use. Adaptive management would modify conservation measures through future INRMP updates to maintain training areas and conserve water resources.

<b>TABLE 4-1 CUMULATIVE EFFECTS</b>					
<b>Resource</b>	<b>Past Actions</b>	<b>Present Actions</b>	<b>Proposed Actions</b>	<b>Future Actions</b>	<b>Cumulative Effect</b>
<b>Vegetation</b>	Existing forest conditions are not resilient. Forest resiliency has improved on 13 percent of the 19,018 forested acres of Camp Navajo from recent treatments.	No forest treatments are currently in progress that would result in a change in forest resiliency	<p>Forest resiliency will be improved from mechanical harvest of 13,712 dense forested acres. Forest resiliency will be improved on approximately 72 percent of the forested acres at Camp Navajo. There is a predicted 88 percent decrease in active crown fire, 41 percent decrease in passive fire, and 23 percent increase in surface fire.</p> <p>Removal of manmade structures from springs and meadows; restore those areas to natural conditions.</p>	Reductions of active and passive crown fire risk on USFS lands adjacent and near to Camp Navajo are expected to occur due to planned 4FRI treatments in the vicinity of Camp Navajo.	<p>Further reduction of active and passive crown fire risk is expected to result from proposed treatments on lands of other jurisdiction adjacent and in close proximity to Camp Navajo.</p> <p>Restoration activities will have a positive impact on natural resources</p>
<b>Biological Resources</b>	Monitoring ESA species, winter raptors, songbirds, and bats (keystone species).	Monitoring ESA species, winter raptors, songbirds, and bats (keystone species).	<p>Monitoring ESA species, winter raptors, songbirds, and bats (keystone species). Forest treatments and restoration activities will provide a long-term benefit to biological resources.</p> <p>Removal of manmade structures from springs and meadows; restore those areas to natural</p>	Monitoring ESA species, winter raptors, songbirds, and bats (keystone species).	<p>Past and on-going species monitoring as indicated, in concert with other agencies, will provide a net benefit to subject species.</p> <p>Restoration activities will have a positive impact</p>

TABLE 4-1 CUMULATIVE EFFECTS					
Resource	Past Actions	Present Actions	Proposed Actions	Future Actions	Cumulative Effect
			conditions.		on natural resources
<b>Socioeconomics</b>	Effects dissipated. The cost of the Engineer Fire (602 acres) in 2011 exceeded \$597,000.	Minimal effect on socioeconomics in area.	Minimal affect to socioeconomics; temporary increase in use of local contractors for forest management and construction of ranges	Minimal effect on socioeconomics in area	No significant change in socioeconomics of the area. The potential for high wildfire suppression and rehabilitation costs would remain.

## 5 COMPARISON OF ALTERNATIVES AND CONCLUSIONS

### 5.1 Comparison of the Environmental Consequences of the Alternatives

CEQ Regulations (40 CFR § 1502.14[d]) require an EA to present the environmental impacts of the Proposed Action and the alternatives in comparative form, thereby clearly defining the issues and providing a basis for choice among options by the decision maker and the public. A comparison of the Proposed Action and No Action Alternative reviewed in this EA is presented below and in the **Table 2-1** of Section 2.3.4 of this EA.

<b>TABLE 5-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<b>Land Jurisdiction/Use</b>	The Proposed Action would result in long-term beneficial effects on land use. The Proposed Action would create a diversity of forest conditions for training and would decrease the risk of large, high-intensity wildfires. The training land would be maintained so that the military mission can be conducted on Camp Navajo well into the future without jeopardizing the quality of the installation's natural resources.	The No Action Alternative would result in potentially short-term and long-term adverse effects on natural resources due to the risk of large, high-intensity wildfire.
<b>Air Quality</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on air quality in the area of Camp Navajo. The installation would continue to be located within an attainment area with respect to NAAQS. Forest management activities would temporarily impact air quality through the prescribed fire program. These activities would also reduce the potential for larger, more intense wildfires, which disperse greater quantities of smoke.	The No Action Alternative would result in no long-term effects to air quality in the area of Camp Navajo. The risk of short-term adverse effects on air quality resulting from a large, high-intensity wildfire would remain.
<b>Noise</b>	The Proposed Action would have short-term, direct, adverse, less than significant effects on noise levels and would increase noise levels within the vicinity of the project area. The increase would be related to forest management and meadow restoration activities.	Under the No Action Alternative, no short-term or long-term effects on noise levels are anticipated within Camp Navajo.

<b>TABLE 5-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b>		
<b>Resource Area</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
<b>Soils</b>	The Proposed Action and associated conservation measures would result in short-term, direct, adverse, less than significant effects to soil erosion. Forest management and natural resources activities, including meadow restoration, would have a long-term, positive effect by reducing the potential for soil erosion thorough maintaining and repairing damaged areas and decreasing the risk of large, high-intensity wildfire.	The No Action Alternative would have no short-term or long-term effects on soils within Camp Navajo. Soil erosion potential would not increase above current levels. The risk of large-scale, high-intensity fire and associated erosion would remain.
<b>Water Resources</b>	The Proposed Action would have minor, short-term, direct, less than significant effects on water resources but would not affect surface water resources in the vicinity of the action area. The Proposed Action would have a positive effect on water resources by reducing the potential for severe intensity wildfires, which could cause adverse effects to water resources.	The No Action Alternative would have no short-term or long-term effects on water resources within Camp Navajo. The risk of large, high-intensity fire and associated adverse effects to water resources would remain.
<b>Biological Resources</b>		
<b>Vegetation</b>	The Proposed Action would have a long-term beneficial effect on the diversity of forest conditions. The Proposed Action would provide reductions in canopy bulk density, associated reductions in the risk of crown fires, and improved forest resiliency to disturbances such as insects, disease, climate change, and wildfire. Proposed activities would have a less than significant adverse effect on local vegetation caused by construction of roads/trails and forest management. The Proposed Action would improve vegetation biodiversity, wildlife habitat, soil productivity, and watershed function.	The No Action Alternative would have no short-term or long-term effects on vegetation beyond the baseline condition. Vegetative and fuel conditions would remain conducive to crown fire, which could result in a large-scale disturbance and loss of forested area for training. Improvement in forest resiliency would not occur in the absence of disturbance.
<b>Fish and Wildlife</b>	The Proposed Action may result in potential mortality of	The No Action Alternative would have no short-term or long-term

<p align="center"><b>TABLE 5-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b></p>		
Resource Area	Proposed Action	No Action Alternative
	<p>individuals of smaller species such as rodents, reptiles, and amphibians from forest treatments and meadow restoration projects. Additional less than significant effects to wildlife may include noise disturbance and the loss of food, cover, and breeding sites due to forest treatments and meadow restoration. However, the Proposed Action would also have a positive effect on wildlife habitat by providing reductions in canopy bulk density and associated reductions in the risk of crown fires and restoring meadows to natural conditions. These effects are unlikely to substantially reduce wildlife populations in the region because of the relatively small areas affected, thus are likely only short-term adverse effects.</p>	<p>effects on wildlife beyond the baseline condition. No Action Alternative provides for management of biological resources opportunistically with most yearly funding prioritized to ESA-listed species. The risk of adverse effects on wildlife from large wildfires would remain.</p>
<p><b>Mexican Spotted Owl</b></p>	<p>The Proposed Action would have short-term, less than significant, adverse effects on MSOs in the form of habitat disturbance and loss, noise disturbance, and potential injury or death, including within designated critical habitat. BO for this species was issued by USFWS on 27 May 2015 (<b>Appendix H</b> of the INRMP), which determined that the forest treatments were likely to adversely affect the MSO. Implementation of the conservation measures outlined in the BO would minimize the effects of the Proposed Action to a less than significant level.</p>	<p>The No Action Alternative would have no short-term or long-term effects on MSO beyond the baseline condition and would not result in additional loss of individuals or critical habitat. Conservation measures outlined within the Camp Navajo INRMP and BO would continue to be implemented to minimize disturbance and effects to MSO and designated critical habitat within the installation. The risk of adverse effects due to wildfire would remain.</p>
<p><b>Bald Eagle</b></p>	<p>The Proposed Action would have short-term, less than significant, adverse effects on bald eagles with the removal of potential roosting and foraging habitat and the increased noise levels within bald eagle habitat. Overall use may decrease with removal of</p>	<p>The No Action Alternative would have no short-term or long-term effects on bald eagles beyond the baseline condition and would not result in a trend toward federal listing or loss of viability. Conservation measures outlined within the Camp Navajo INRMP</p>

<p align="center"><b>TABLE 5-1 ALTERNATIVES IMPACT COMPARISON MATRIX</b></p>		
<p><b>Resource Area</b></p>	<p><b>Proposed Action</b></p>	<p><b>No Action Alternative</b></p>
	<p>habitat in those areas, but the Proposed Action is not likely to result in a trend toward federal listing or loss of viability of the bald eagle. Conservation measures would be implemented to minimize effects of the Proposed Action. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to minimize disturbance and effects to bald eagles within the installation.</p>	<p>would continue to be implemented to minimize disturbance and effects to bald eagles within the installation. The risk of adverse effects due to wildfire would remain.</p>
<p><b>Migratory Birds</b></p>	<p>The Proposed Action may have short-term, less than significant, adverse effects to individual birds, nests, and/or eggs but would not result in a trend toward federal listing or loss of viability of any migratory bird species. Effects would be in the form of habitat disturbance and loss, noise disturbance, and potential injury or death. Conservation measures would be implemented to avoid effects of the Proposed Action.</p>	<p>The No Action Alternative would have no short-term or long-term effects on migratory birds beyond the baseline condition and would not result in a trend toward federal listing or loss of viability of any migratory bird species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented to avoid disturbance and effects to migratory birds, nests, and eggs. The risk of short- and long-term adverse effects due to wildfire would remain.</p>
<p><b>Arizona State Protected Plants</b></p>	<p>The Proposed Action may result in short-term, less than significant, adverse effects to Arizona State Protected Plants, as potential habitat for plants protected under the ANPL exists within the Proposed Action area. Potential effects are not likely to result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species.</p>	<p>The No Action Alternative would likely have no short-term or long-term effects on Arizona State Protected Plants beyond the baseline condition and would not result in a trend toward listing under the ESA or loss of population viability. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation to minimize effects to protected plant species. The risk of adverse effects due to wildfire would remain.</p>
<p><b>Federal and State Listed Species of Concern</b></p>	<p>The Proposed Action would have a short-term, less than significant, adverse impact on</p>	<p>The No Action Alternative would likely have no short-term or long-term effects on federal and state</p>

TABLE 5-1 ALTERNATIVES IMPACT COMPARISON MATRIX		
Resource Area	Proposed Action	No Action Alternative
	federal and state listed SC (such as bats and goshawk); however, it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP and the 2015 BO ( <b>Appendix H</b> of the INRMP) would continue to be implemented throughout the installation.	listed SC, as it would not likely result in a trend toward ESA listing or loss of viability of these species. Conservation measures outlined within the Camp Navajo INRMP would continue to be implemented throughout the installation. The risk of adverse effects due to wildfire would remain.
<b>Cultural Resources</b>	The Proposed Action would have less than significant effects on cultural resources. The Proposed Action contains provisions for the location and preservation of cultural sites if ground-disturbing activities are proposed for unsurveyed sites. Project reviews follow the NHPA guidelines. Guidelines to avoid or reduce the adverse effect of the Proposed Action would be developed and implemented.	The No Action Alternative would have no effect on cultural resources, but they would continue to weather and erode. The risk of adverse effects due to wildfire would remain.

8 **5.2 Conclusions**

9 Implementation of the INRMP at Camp Navajo would guide management of natural resources,  
 10 support the military mission, and minimize environmental effects of the overall military mission,  
 11 while ensuring compliance with various environmental laws. Full implementation of the plan will  
 12 ensure the continued use of Camp Navajo’s natural resources for military training and outdoor  
 13 recreation.

14 There would be no significant adverse effects caused to natural resources as a result of  
 15 implementing the INRMP on Camp Navajo. The potential benefits of implementing this plan are  
 16 reduced impacts to soil, water, and biological resources and compliance with federal and state  
 17 laws, including the Sikes Act, CWA, and NEPA. Implementation of the INRMP would allow  
 18 AZARNG to manage its natural resources at Camp Navajo with a proactive approach to meet  
 19 current and future conservation needs.

20 Implementing the INRMP would not constitute a major federal action significantly affecting  
 21 biodiversity or the quality of the environment. A FONSI will be published with this EA.

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## 7 GLOSSARY

**Attainment Area:** A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (NAAQS) for the pollutant.

**Biological Opinion:** A document that includes the following: 1) the opinion of the USFWS or the National Marine Fisheries Service as to whether a federal action is likely to jeopardize the existence of a species listed as threatened or endangered or destroy or adversely modify designated critical habitat, 2) a summary of the information on which the opinion is based, and 3) a detailed discussion of the effects of the action on listed species or designated critical habitat.

**Candidate Species:** Species not protected under the ESA but being considered by the USFWS for inclusion on the list of federally threatened and endangered species.

**Cantonment Area:** Area that provides the infrastructure to support housing/billeting for Soldiers and their families, motor pools for vehicle maintenance and repair, recreational activities, and other community support activities.

**Combat Pistol Qualification Course:** Small arms firing course that trains Soldiers to engage single and multiple targets at various ranges using the fundamentals of quick fire.

**Criteria Pollutants:** EPA uses six “criteria pollutants” as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called NAAQS.

**Critical Habitat:** Specific parts of an area that are occupied by a federally-listed threatened or endangered plant or animal at the time it is listed and that contain physical or biological features.

**Cultural Resources (Cultural Property):** A location of human activity, occupation, or use identifiable through field inventory, historic documentation, or oral evidence. Cultural resources include archaeological, historical, or architectural sites, structures, or places with important public and scientific use. Cultural resources may include definite locations of traditional, cultural, or religious importance to specified social or cultural groups.

**Cultural Resources Inventory (Survey):** A descriptive listing and documentation including photographs and maps of cultural resources. Included in an inventory are the processes of locating, identifying, and recording sites, structures, buildings, objects, and districts through library and archival research, information from persons knowledgeable about cultural resources, and on-the-ground surveys of varying intensity.

**Class I:** A professionally prepared study that compiles, analyzes, and synthesizes all available data on an area’s cultural resources. Information sources for this study include published and unpublished documents, Bureau of Land Management (BLM) inventory records, institutional site files, and state NRHP files. Class I inventories may have prehistoric, historic, ethnological, and sociological elements. These inventories are periodically updated to include new data from other studies and Class II and III inventories.

**Class II:** A professionally conducted, statistically based sample survey designed to describe the probable density, diversity, and distribution of cultural properties in a large area. This survey is achieved by projecting the results of an intensive survey carried out

over limited parts of the target area. Within individual sample units, survey aims, methods, and intensities are the same as those applied in Class III inventories. To improve statistical reliability, Class II inventories may be conducted in several phases with different designs.

**Class III:** A professionally conducted intensive survey of an entire target area aimed at locating and recording all visible cultural properties. In a Class III survey, trained observers commonly conduct systematic inspections by walking a series of close-interval parallel transects until they have thoroughly examined an area.

**Cumulative Effects:** Effects that result from the incremental changes from all planned actions when added to other past, present, and reasonably foreseeable changes. Cumulative impacts can also result from individually minor but collectively significant actions taking place over time.

**Direct Effects:** The direct or immediate effects of a project on a species or its habitat.

**Diversity:** The distribution and abundance of different plant and animal communities and species within the area covered by a land and resources management plan.

**Ecosystem:** Organisms, together with their abiotic environment, forming an interacting system and inhabiting an identifiable space.

**Endangered Species:** Any animal or plant species in danger of extinction throughout all or a significant portion of its range as designated by the USFWS under the ESA. Also see **Threatened Species**.

**Environmental Assessment:** A concise public document for which a federal agency is responsible. An EA serves 1) to briefly provide enough evidence and analysis for determining whether to prepare an EIS or a FONSI and to aid an agency's compliance with NEPA when no EIS is needed and 2) to facilitate preparing an EIS when one is needed.

**Environmental Consequences:** Changes and effects to the natural and human environment that could result from implementation of actions of alternatives. Environmental consequences are evaluated relative to existing environmental conditions in the action area.

**Environmental Justice:** The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in developing, implementing, and enforcing environmental laws, regulations, and policies.

**Finding of No Significant Impact:** A document that is prepared by a federal agency that briefly explains why an action not otherwise excluded from the requirement to prepare an EIS would not significantly affect the human environment and require an EIS.

**Groundwater:** Subsurface water and underground streams that supply wells and springs. Use of groundwater in Arizona does not require a water right but must only be "reasonable." Groundwater is separated from surface water by the type of alluvium in which the water is found. Water in the younger floodplain alluvium is considered surface water. Water in the older basin-fill alluvium is considered groundwater.

**Habitat:** An area that provides an animal or plant with adequate food, water, shelter, and living

space.

**Harass:** Harass is defined by USFWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns that include but are not limited to breeding, feeding, or sheltering.

**Highly Safeguarded:** Species of native plants and parts of plants, including the seeds and fruit, whose prospects for survival in Arizona are in jeopardy or which are in danger of extinction throughout all or a significant portion of their ranges, and those native plants which are likely within the foreseeable future to become jeopardized or in danger of extinction throughout all or a significant portion of their ranges.

**Hazardous Materials:** An all-encompassing term that includes hazardous substances, hazardous waste, hazardous chemical substances, toxic substances, pollutants and contaminants, and imminently hazardous chemical substances and mixtures that can pose an unreasonable risk to human health, safety, and property.

**Indirect Effects:** Those effects that are caused by a Proposed Action and are later in time but are reasonably certain to occur.

**Storage Mission:** Mission of Camp Navajo to operate as a reserve supply depot for the receipt, storage, and surveillance of munitions and missiles; large rocket motors; war reserve stocks; and strategic, critical materials; and/or general storage.

**Infrastructure:** The set of systems and facilities that support a region's or community's social and economic structures. Examples of such systems include energy, transportation, communication, education, medical service, and fire and police protection.

**Intermittent Stream:** A stream that generally flows during wet seasons but is dry during dry seasons.

**Jeopardize the continued existence of a listed species:** Means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

**Keystone Species:** Species that create a special habitat on which other species depend and without which some wildlife would become severely depleted. Two examples of keystone species are beavers, which create ponds, and prairie dogs, which create burrows.

**Ammunition Storage Area:** Located in the central portion of Camp Navajo and supports the installation's Storage Mission. The Ammunition Storage Area contains the ammunition maintenance and workshop area, the standard magazine area, and the igloo (storage) area.

**Memorandum of Agreement:** Lists certain binding historic resources commitments and outlines measures to avoid, mitigate, or accept the adverse effects on a given historic resources. The Memorandum of Agreement is part of requirements outlined in Section 106 of the NHPA of 1966. It must be signed by agencies such as the SHPO, the Advisory Council on Historic Preservation, and lead federal agencies conducting the action.

**Migratory Bird Treaty Act:** The Migratory Bird Treaty Act implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.

**National Ambient Air Quality Standards:** The allowable concentrations of air pollutants in the ambient (public outdoor) air specified in 40 CFR 50. NAAQS are based on the air quality criteria and divided into primary standards (allowing an adequate margin of safety to protect the public health of “sensitive” populations such as asthmatics, children, and the elderly) and secondary standards (allowing an adequate margin of safety to protect the public welfare). Welfare is defined as including effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, climate, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.

**National Environmental Policy Act:** The federal law, effective January 1, 1970, that established a national policy for the environment and requires federal agencies 1) to become aware of the environmental ramifications of their proposed actions, 2) to fully disclose to the public proposed federal actions and provide a mechanism for public input to federal decision making, and 3) to prepare EISs for every major action that would significantly affect the quality of the human environment.

**National Historic Preservation Act of 1966, as amended:** A federal statute that established a federal program to further the efforts of private agencies and individuals in preserving the nation’s historic and cultural foundations. The NHPA 1) authorized the NRHP, 2) established the Advisory Council on Historic Preservation and a National Trust Fund to administer grants for historic preservation, and 3) authorized the development of regulations to require federal agencies to consider the effects of federally assisted activities on properties included on or eligible for the NRHP. Also see **National Register of Historic Places**.

**National Register of Historic Places:** The official list, established by the NHPA, of the nation’s cultural resources worthy of preservation. The NRHP lists archeological, historic, and architectural properties (e.g., districts, sites, buildings, structures, and objects) nominated for their federal agencies and approved by the NRHP staff. The National Park Service maintains the NRHP. Also see **National Historic Preservation Act**.

**Net Explosive Weight:** The actual weight in pounds of explosive mixtures or compounds, including the trinitrotoluene equivalent of energetic material, that is used in determination of explosive limits and explosive quantity data arcs.

**Non-Attainment Area:** A geographic area in which a criteria air pollutant level is higher than allowed by the federal standards. A single geographic area may have an acceptable level for one criteria air pollutant but have unacceptable levels of one or more other criteria air pollutants. Thus, an area can be both an attainment and non-attainment area at the same time.

**Ordnance:** A military weapon or item of destruction, such as explosives, chemicals, pyrotechnics, and similar stores (e.g., bombs, missiles, guns and ammunition, flares, and associated support equipment).

**Palustrine Open Water Wetlands:** A wetland system as classified by the United States

Geological Survey for wetlands and deep-water habitats of the United States. The Palustrine System was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States. It also includes the small, shallow, permanent or intermittent water bodies often called ponds. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes. They may also occur as islands in lakes or rivers. The erosive forces of wind and water are of minor importance except during severe floods.

**Particulate Matter:** Fine liquid or solid particles suspended in the air and consisting of dust, smoke, mist, fumes, and compounds containing sulfur, nitrogen, and metals.

**Prescribed Fire:** The planned applying of fire to rangeland vegetation and fuels under specified conditions of fuels, weather, and other variables to allow the fire to remain in a predetermined area to achieve such site-specific objectives as controlling certain plant species; enhancing growth, reproduction, or vigor of plant species; managing fuel loads; and managing vegetation community types.

**Programmatic Agreement:** Section 106 of the NHPA of 1966 includes federal agency program alternatives, including Programmatic Agreements. The Advisory Council on Historic Preservation and a federal agency conducting activities that may have an adverse effect on historic properties may negotiate a Programmatic Agreement to govern implementation of a particular agency program or the resolution of adverse effects from a complex project or multiple undertakings.

**Protected Activity Center:** Designated area that is afforded protection for specific species by restricting certain management activities.

**Recovery Plan:** A document drafted by USFWS or other knowledgeable individual or group, which serves as a guide for activities to be undertaken by federal, state, or private entities in helping to recover and conserve endangered or threatened species.

**Remedial Action:** The cleanup, removal, containment, isolation, treatment, or monitoring of hazardous substances released into the environment, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, the environment, or natural resources, which injury may otherwise result from a release of a hazardous substance or a potential release of a discarded hazardous substance.

**Remedial Investigation:** An investigation to gather and analyze the data necessary to determine the nature and extent of contamination at a site, evaluate the risks to human health and the environment, and provide information for identifying and evaluating options for remedial action.

**Resiliency:** The capacity of a (plant) community or ecosystem to maintain or regain normal function and development following disturbance.

**Rill Erosion:** An erosion process on sloping fields in which numerous and randomly occurring small channels of only several centimeters in depth are formed; this occurs mainly on recently cultivated soils.

**Riparian Area:** Land areas directly influenced by a body of water. These areas usually have visible vegetation or physical characteristics showing this water influence. Stream sides, lake borders, and marshes are typical riparian areas.

**Risk Assessment:** A study to determine risks posed by the site if no cleanup action was taken and what cleanup levels need to be established to be protective of human health and the environment. There are two types of risk assessments. Human health risk assessment looks at the risks to humans from contamination at the site and an ecological risk assessment looks at the risks to ecosystems, such as plants, fish, and animals, from contamination at the site.

**Salvage Restricted:** Native plants that are protected under the ANPL and are afforded protections that involve using salvage permits, tags, and seals that must be obtained from the Arizona Department of Agriculture. These plants have been determined to be subject to a high potential for damage by theft and vandalism.

**Scoping:** An early and open process for determining the scope of issues to be addressed in an EIS and the significant issues related to a proposed action.

**Section 7 Consultation:** The requirement of Section 7 of the ESA that all federal agencies consult with the USFWS or the National Marine Fisheries Service if a proposed action might affect a federally listed species or its critical habitat.

**Sensitive Species:** All species that are under status review, have small or declining populations, live in unique habitats, or need special management. Sensitive species include threatened, endangered, and proposed species as classified by the USFWS and species listed by USFS and BLM.

**Sheet Erosion:** The removal of a relatively uniform thin layer of soil from the land surface by rainfall and largely un-channeled surface runoff (sheet flow).

**Sikes Act of 1974 and the Sikes Act Improvement Act:** A federal law that promotes federal-state cooperation in managing wildlife habitats on BLM land, USFS lands, and United States Army installations.

**Silt Fencing:** The purpose of a silt fence is to prevent sediment carried by sheet flow from leaving a site and entering natural drainage ways or storm drainage systems by slowing stormwater runoff and causing the deposition of sediment at the structure. Silt fencing encourages sheet flow and reduces the potential for development of rills and gullies.

**Site Characterization:** The technical process used to evaluate the nature and extent of environmental contamination. This process is necessary for designing remediation measures and monitoring their effectiveness.

**Special Status Species:** Plant or animal species listed as threatened, endangered, candidate, or sensitive by federal or state governments.

**State Historic Preservation Officer:** The official within and authorized by each state at the request of the Secretary of the Interior to act as liaison for the NHPA. Also see **National Historic Preservation Act**.

**Surface Danger Zone:** A SDZ is the ground and airspace designated within a training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems to

include ammunition, explosives, and demolition explosives. Residual risks of fragment escape or other danger to the public no greater than  $10^{-6}$  (one in one million) is the objective of SDZs.

**Take:** As defined by the ESA, “to harass, harm, pursue, hunt, shoot, wound, kill, capture, or collect, or attempt to engage in any such conduct.” **Harm** is further defined by USFWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.

**Threatened Species:** Any plant or animal species likely to become endangered within the foreseeable future throughout all or a part of its range and designated by USFWS under the ESA. Also see **Endangered Species**.

**Turbidity:** In water bodies, the condition of having suspended particles that reduces the ability of light to penetrate beneath the surface. Some rivers and streams are naturally more turbid than others; soil erosion and runoff into streams can increase turbidity.

**Unexploded Ordnance:** Explosive weapons (bombs, shells, grenades, etc.) that did not explode when they were employed and that still pose a risk of detonation.

**Water Bar:** A diversion ditch or hump in a trail or road for the purpose of diverting surface water runoff into roadside vegetation, duff, ditch, or dispersion area to minimize soil movement and erosion.

**Wetland:** An area that is inundated or saturated by surface or groundwater often and long enough that under normal circumstances supports a prevalence of vegetation typically adapted for life in saturated soil. Wetlands include marshes, shallows, swamps, lake shores, bogs, muskegs, wet meadows, estuaries, cienegas, and riparian areas.

**8 LIST OF PREPARERS**

<b>TABLE 8-1 AMEC LIST OF PREPARERS</b>		
<b>Name</b>	<b>Title</b>	<b>Experience</b>
Enrique Tapia	GIS Analyst / Graphics Production	B.S. Geography; 5 years professional experience
Gerrie Gomez	Word Processor	4 years professional experience
Ellen Carroll	Word Processor	Associates in Humanities; 5 years professional experience
Tim Fischer	Quality Reviewer / Senior Ecologist and Risk Assessor	M.S. Biology; B.S. Biological Sciences; B.S. Wildlife Biology; 25 years professional experience
Marcie Martin	Project Manager / Environmental Planner	M.S. Environmental Management and Industrial Hygiene; B.S. Zoology; 11 years professional experience
Steve Ochs	Chemical / Air Quality Engineer	M.S. Chemical Engineering; B.A. Physics; 15 years professional experience
Theresa Price	Biologist	M.S. Applied Biological Sciences; Masters Certificate GIS; B.S. Botany and Environmental Studies; 4 years professional experience
Justin Rogers	Cultural Resources Specialist	M.A.S. GIS; M.S. Geography; B.A. Geography; 10 years professional experience
Heather Rothbard	Environmental Scientist / Planner	B.S. Botany; 5 years professional experience

<b>TABLE 8-2 AZARNG ENVIRONMENTAL OFFICE LIST OF PREPARERS</b>	
<b>Name</b>	<b>Title</b>
Brian Miller	Environmental Program Manager
Janet Johnson	Conservation Program Manager
Hannah Telle	Natural Resources Manager—Wildlife Biologist, Camp Navajo
Nicholas Kainrath	Natural Resources Manager—Forester, Camp Navajo
Tracy Bazelman	Natural Resources Manager—Southern Installations
Shelby Manney	Cultural Resources Manager

<b>TABLE 8-3 TRANSCON LIST OF PREPARERS</b>	
<b>Name</b>	<b>Title</b>
Heather Breakiron	9 years of professional experience
Natalie Bartel	M.S. Environmental Management, 5 years of professional experience

## 9 AGENCIES AND INDIVIDUALS CONSULTED

Tables 9-1 through 9-6 outline the contact made while consulting with agencies and Tribes. Agency comments can be found in **Appendix C** of the INRMP.

<b>TABLE 9-1 CONTACT LOG FOR TRIBAL CONSULTATION (DRAFT CAMP NAVAJO INRMP/EA)</b>					
<b>Tribe, Nation, or Community</b>	<b>Tribal POC</b>	<b>Mail Date</b>	<b>Receipt Confirmation Date/Type</b>		<b>Notes</b>
Fort Mojave Indian Tribe	Joe Scerato	11/8/13	11/12/13	Certified Mail Receipt	No comments received
Havasupai Tribe	Travis Hamidreek	11/8/13	11/14/13	Certified Mail Receipt	No comments received
Navajo Nation	Ron Maldonado	11/8/13	11/13/13	Certified Mail Receipt	No comments received
Yavapai-Prescott Indian Tribe	Linda Ogo	11/8/13	11/12/13	Certified Mail Receipt	No comments received
Hualapai Tribe	Loretta Kelly	11/8/13	11/13/13	Certified Mail Receipt	No comments received
Hopi Tribe	Leigh Kuwanwisiwma	11/8/13	11/12/13	Certified Mail Receipt	No comments received
Zuni Pueblo	Kurt Dongoske	11/8/13	11/18/13	Certified Mail Receipt	No comments received

<b>TABLE 9-2 CONTACT LOG FOR TRIBAL CONSULTATION (FINAL CAMP NAVAJO INRMP/EA)</b>					
<b>Tribe, Nation, or Community</b>	<b>Tribal POC</b>	<b>Mail Date</b>	<b>Receipt Confirmation Date/Type</b>		<b>Notes</b>
Fort Mojave Indian Tribe	Joe Scerato	2/6/14	2/11/14	Certified Mail Receipt	No comments received
Havasupai Tribe	Travis Hamidreek	2/6/14	2/20/14	Certified Mail Receipt	No comments received
Navajo Nation	Ron Maldonado	2/6/14	2/18/14	Certified Mail Receipt	No comments received
Yavapai-Prescott Indian Tribe	Linda Ogo	2/6/14	2/8/14	Certified Mail Receipt	No comments received
Hualapai Tribe	Loretta Kelly	2/6/14	2/11/14	Certified Mail Receipt	No comments received
Hopi Tribe	Leigh Kuwanwisiwma	2/6/14	2/11/14	Certified Mail Receipt	No comments received
Zuni Pueblo	Kurt Dongoske	2/6/14	2/18/14	Certified Mail Receipt	No comments received

<b>TABLE 9-3 CONTACT LOG FOR AGENCY CONSULTATION (DRAFT CAMP NAVAJO INRMP/EA)</b>					
<b>Agency, Organization, or Stake Holder</b>	<b>Agency POC</b>	<b>Mail Date</b>	<b>Receipt Confirmation Date/Type</b>		<b>Notes</b>
Kaibab National Forest	Katherine Sanchez-Meador	11/8/13	11/21/13	Phone Call	Comments received 12/24/13, addressed and returned 2/6/14
Coconino National Forest	Mike Dechter	11/8/13	11/12/13	Certified Mail Receipt	Comments received 1/9/14, addressed and returned 2/6/14
United States Fish and Wildlife Service	Steve Spangle	11/8/13	11/12/13	Certified Mail Receipt	Comments received 12/17/13, addressed and returned 2/6/14
Arizona Game and Fish Department	Craig McMullen	11/19/13	11/18/13	Certified Mail Receipt	Comments received 12/17/13, addressed and returned 2/6/14
Arizona Department of Environmental Quality	Amanda Lam	11/8/13	11/12/13	Certified Mail Receipt	No comments received
4 Forest Restoration Initiative	Katherine Sanchez-Meador	11/8/13	11/12/13	Certified Mail Receipt	No comments received
Northern Arizona University Centennial Forest	Cheryl Miller	11/8/13	11/21/13	Phone Call	No certified mail receipt received, phone call to point of contact confirmed receipt, no comments received
Roger's Lake Stakeholders	Jessica Gist	11/8/13	11/12/13	Certified Mail Receipt	No comments received
Coconino County	John Abber	11/8/13	11/12/13	Certified Mail Receipt	Comments received 11/26/13, addressed and returned 2/6/14
City of Flagstaff	Jim Cronk	11/8/13	11/12/13	Certified Mail Receipt	No comments received
City of Williams	Harry Holmes	11/8/13	11/12/13	Certified Mail Receipt	No comments submitted, declined further interest
Arizona Division of Forestry	Keith Pajkos	11/8/13	11/12/13	Certified Mail Receipt	No comments received
State Historic Preservation Office	Ann Howard/ Kris Dobschuetz	06/12/2014	06/25/2014	Email	Comments received 7/9/2014, addressed 10/7/2014

<b>TABLE 9-4 CONTACT LOG FOR AGENCY CONSULTATION (FINAL CAMP NAVAJO INRMP/EA)</b>					
<b>Agency, Organization, or Stake Holder</b>	<b>Agency POC</b>	<b>Mail Date</b>	<b>Receipt Confirmation Date/Type</b>		<b>Notes</b>
Kaibab National Forest	Marcos Roybal	2/6/14	2/10/14	Certified Mail Receipt	No comments received
Coconino National Forest	Mike Dechter	2/6/14	2/10/14	Certified Mail Receipt	No comments received
United States Fish and Wildlife Service	Steve Spangle	2/6/14	2/8/14	Certified Mail Receipt	No comments received
Arizona Game and Fish Department	Craig McMullen	2/6/14	2/8/14	Certified Mail Receipt	Comments received 2/25/14, addressed and returned 3/12/14
Arizona Department of Environmental Quality	Amanda Lam	2/6/14	2/18/14	Certified Mail Receipt	No comments received
4 Forest Restoration Initiative	Katherine Sanchez-Meador	2/6/14	2/8/14	Certified Mail Receipt	No comments received
Northern Arizona University Centennial Forest	Cheryl Miller	2/6/14	2/10/14	Certified Mail Receipt	No comments received
Roger's Lake Stakeholders	Jessica Gist	2/6/14	2/8/14	Certified Mail Receipt	No comments received
Coconino County	Jeanne Trupiano	2/6/14	2/8/14	Certified Mail Receipt	No comments received
City of Flagstaff	Jim Cronk	2/6/14	2/8/14	Certified Mail Receipt	Email received 3/4/14 indicating no comments to final
City of Williams	Harry Holmes	N/A	N/A	N/A	No review of final
Arizona Division of Forestry	Keith Pajkos	2/4/14	2/8/14	Certified Mail Receipt	No comments received
State Historic Preservation Office	Kris Dobschuetz	10/12/2014	6/25/2014	Phone, Email	Comments received 10/24/2014, request clarification 10/27/2014, addressed 02/13/2014

<b>TABLE 9-5 CONTACT LOG FOR PUBLIC CONSULTATION (DRAFT CAMP NAVAJO INRMP/EA)</b>				
<b>Publisher or Location</b>	<b>Publisher POC</b>	<b>Period of Availability Begin / End</b>		<b>Notes</b>
Arizona Daily Sun	Bobbie Crosby	11/24/13	12/24/13	Hard copy available at the Flagstaff Public Library (Main Branch).
AZARNG Public Affairs Office	SGT Lauren Twigg	11/24/13	12/24/13	Digital copy available on the PAO website.
<b>There were no comments received from the public during the draft Camp Navajo INRMP/EA review period.</b>				

AFFIDAVIT/PROOF OF PUBLICATION

STATE OF ARIZONA

} ss.

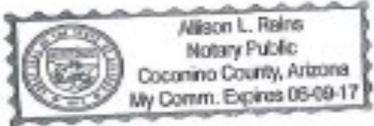
County of Coconino

Bobbie Crosby being duly sworn deposes and says:

That she is the legal clerk of the Arizona Daily Sun  
 a newspaper published at Flagstaff, Coconino County, Arizona; that the  
Legal 17445  
 \_\_\_\_\_ a copy of which is  
 hereunto attached, was first published in said newspaper in its issue dated  
 the 24 day of November, 2013, and was  
 published in each one issue of said newspaper for twenty six  
 consecutive days the last publication being in the issue dated the  
24 day of December, 2013.

Legal No. 17445  
 30-day Public Review and Com-  
 ment Period for Environmental  
 Assessment for Camp Navajo Inte-  
 grated Natural Resources Manage-  
 ment Plan  
 The Arizona Army National Guard  
 hereby announces the availability of  
 the draft environmental assessment  
 (EA) for the implementation of the  
 revised Integrated Natural Resour-  
 ces Management Plan (INRMP) of  
 Camp Navajo. The EA, as well as  
 the INRMP and its appendices are  
 offered for public review and  
 comment between the dates of  
 November 24th, 2013 - December  
 24th, 2013 at the following website  
 and location:  
 Arizona Army National Guard Web-  
 site  
<http://www.aznaguard.gov/PublicAffairs/Pages/PublicAffairs.aspx>  
 Coconino County Public Library  
 Flagstaff City Branch  
 300 W Aspen Ave  
 Flagstaff, AZ 86001  
 Written and substantive comments  
 concerning these documents are  
 invited, and will be received until  
 5:00 p.m. local time on December  
 24th, 2013. Comments should be  
 addressed to the following or  
 submitted via email to john.hickersmith@lra.army.mil, or in writing to:  
 John Hickersmith, Natural Resour-  
 ces Manager  
 Camp Navajo Environmental Office  
 1 Hughes Ave, Building 15  
 Bellevue, AZ 86015  
 PUB: Nov, 24,  
 26, 27, 28, 29, 30, Dec. 1, 3, 4, 5, 6,  
 7, 8, 10, 11, 12, 13, 14, 15, 17, 18,  
 19, 20, 21, 22, 24, 2013 17445

Subscribed and sworn to before me this  
2 day of January, 2014  
Wilson L. Reins  
 Notary Public



My Commission expires 05/09/2017

<b>TABLE 9-6 CONTACT LOG FOR PUBLIC CONSULTATION (FINAL CAMP NAVAJO INRMP/EA)</b>				
<b>Publisher or Location</b>	<b>Publisher POC</b>	<b>Period of Availability Begin / End</b>		<b>Notes</b>
Arizona Daily Sun	Bobbie Crosby	2/7/14	3/10/14	Hard copy available at the Flagstaff Public Library (Main Branch)
AZARNG Public Affairs Office	SGT Lauren Twigg	2/7/14	3/10/14	Digital copy available on the PAO website
<b>There were no comments received from the public during the draft Camp Navajo INRMP/EA review period.</b>				

AFFIDAVIT/PROOF OF PUBLICATION

STATE OF ARIZONA

} ss.

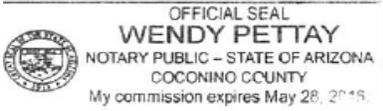
County of Coconino

Bobbie Crosby being duly sworn deposes and says:

That she is the legal clerk of the Arizona Daily Sun a newspaper published at Flagstaff, Coconino County, Arizona; that the Legal 17584 a copy of which is hereunto attached, was first published in said newspaper in its issue dated the 7 day of February, 2014, and was published in each one issue of said newspaper for 30 consecutive days the last publication being in the issue dated the 13 day of March, 2014.

Legal No. 17584 30-day Public Review and Comment Period for Environmental Assessment for Camp Navajo Integrated Natural Resources Management Plan The Arizona Army National Guard hereby announces the availability of the final environmental assessment (EA) for the implementation of the revised Integrated Natural Resources Management Plan (INRMP) at Camp Navajo. The EA, as well as the final INRMP and its appendices are offered for public review and comment between the dates of February 7th, 2014 - March 10th, 2014 at the following website and location: Arizona Army National Guard Website http://www.azguard.gov/ Coconino County Public Library Flagstaff City Branch 300 W Aspen Ave Flagstaff, AZ 86001 Written and substantive comments concerning these documents are invited, and will be received until 5:30 p.m. local time on March 10th 2014. Comments should be addressed to the following or submitted via email to john.hockersmith@fmo.azdema.gov, or in writing to: John Hockersmith, Natural Resources Manager Camp Navajo Environmental Office 1 Hughes Ave, Building 15 Belmont, AZ 86015PUB: Feb, 7, 8, 9, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, Mar, 1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 2014 17584

Subscribed and sworn to before me this 18 day of March, 2014



Wendy Pettay Notary Public

My Commission expires 05/28/2016