FINAL FINDING OF NO SIGNIFICANT IMPACT
FOR THE
ENVIRONMENTAL ASSESSMENT ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

AUGUST 2013

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14. ABSTRACT

This EA tiers from the USDA APHIS WS Predator Damage Management in New Mexico EA which resulted in a Finding of No Significant Impact. The purpose of the Proposed Action is to control packs of aggressive coyotes across Kirtland AFB that pose a human health and safety risk to installation residents and workers. Recent drought conditions have drastically reduced populations of typical prey in uninhabited areas of the installation. With steady populations of prey seeking food sources in the urban and housing areas of the installation, the presence of coyotes in these areas has increased. This has resulted in coyotes hunting domestic animals and a fearless relationship toward the human presence in family housing where young children could be viewed as potential prey. Human health and safety concerns include: human attacks from coyotes that result in injuries or death and disease threats from rabies and plague outbreaks where predators act as carriers. To date, Kirtland AFB has received one confirmed report of an attack on a pet in the family housing area and several unconfirmed reports. Residents have observed coyotes walking along concrete block walls bordering their yards. The implementation of the Proposed Action would reduce human health and safety risks at Kirtland AFB posed by aggressive coyote populations. Coyotes are not protected by state or federal regulations or statutes and are considered predatory animals. However, by statute, the New Mexico Department of Game and Fish (NMDGF) has the responsibility to manage predator damage, including coyote predation, to other wildlife. USDA APHIS WS, under a Joint Powers Agreement and contract assists NMDGF with responding to predatory animal complaints. USDA APHIS WS assists residents, Tribes, or other federal agencies, especially in urban areas, concerned about coyote attacks on their pets and their apparent loss of fear for humans. USDA APHIS WS proposes to accomplish coyote control on Kirtland AFB by developing a base-specific Integrated Wildlife Damage Management program. The Wildlife Specialist would ensure that the most effective, efficient, and humane methods would be utilized. The analysis in the EA considers the Proposed Action and the No Action Alternative. Three alternatives to the Proposed Action were considered, but eliminated from detailed analysis due to not meeting the selection criteria. The implementation of the Proposed Action at Kirtland AFB is not anticipated to result in significant environmental impacts.

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FINAL FINDING OF NO SIGNIFICANT IMPACT (FONSI)

ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

Introduction

The U.S. Air Force (USAF) prepared an Environmental Assessment (EA) to identify and evaluate potential environmental impacts from conducting coyote control activities across Kirtland Air Force Base (AFB). The USAF prepared the EA in accordance with the requirements of the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] Section 4321−4347), as amended, and the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508). This EA tiers from the U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services (USDA APHIS WS) Predator Damage Management in New Mexico EA which resulted in a FONSI. A copy of the USDA AHIS WS EA can be found at http://www.aphis.usda.gov/regulations/pdfs/nepa/NM%20PDM%20EA%202006.pdf. The USDA APHIS WS reviews the EA annually for its continued validity.

Based on the analysis contained in the *Environmental Assessment Addressing Coyote Control Measures across Kirtland Air Force Base, New Mexico*, which is herewith incorporated by reference, the USAF has determined that the Proposed Action has the potential to result in less than significant adverse environmental impacts.

1. Description of Proposed Action and Alternatives

Proposed Action. The 377 Air Base Wing (ABW) at Kirtland AFB, New Mexico, proposes to control packs of aggressive coyotes across Kirtland AFB by contracting USDA APHIS WS to conduct control methods in accordance with applicable federal, state, and local laws and regulations. To date, approximately three packs consisting of two to five coyotes have been reported to be causing problems in the family housing and urban areas of the installation. Coyotes are not protected by state or federal regulations or statutes and are considered predatory animals. However, by statute, the New Mexico Department of Game and Fish (NMDGF) has the responsibility to manage predator damage, including coyote predation, to other wildlife. USDA APHIS WS, under a Joint Powers Agreement and contract assists NMDGF with responding to predatory animal complaints. USDA APHIS WS assists residents, Tribes, or other federal agencies, especially in urban areas, concerned about coyote attacks on their pets and their apparent loss of fear for humans. Recommendations provided by USDA APHIS WS are generally made to consider exclusion methods to reduce human health and safety concerns, but the animals present are often removed. Integrated Wildlife Damage Management (IWDM) methods to be implemented would encourage the use of all available legal techniques and methods, used singly or in combination, to meet the needs to resolve conflicts with predators

Predator damage management is conducted to protect agricultural and natural resources, property, and human health and safety from predators and has been conducted since the 1920s in New Mexico by USDA APHIS WS. Direct control support has been provided for situations that require the use of methods and techniques that are difficult or dangerous for the public to implement, especially those that involve lethal control methods, and where USDA APHIS WS's expertise in predator damage management is of value. IWDM methods to be implemented would encourage the use of all available legal techniques and methods, used singly or in combination, to meet the needs to resolve conflicts with predators. Most wildlife damage situations require professional expertise, an organized control effort, and

the use of several of the available IWDM methods to sufficiently resolve them. The resources, species, location and type of damage, and the available biologically sound, cost-efficient, legal IWDM methods are analyzed by USDA APHIS WS personnel to determine the action(s) necessary to be taken to correct a conflict with a predator. Most non-lethal methods, whether applied by USDA APHIS WS or resource owners, are employed to prevent damage from occurring. Unfortunately, non-lethal IWDM methods are only effective for a short period of time before wildlife become accustomed to them and are generally only practical for small areas. Proposed IWDM control methods for problem coyotes at Kirtland AFB include shooting, calling and shooting, leg hold traps, cage traps, snares, and chemical immobilization and euthanasia.

In addition to the Proposed Action, the No Action Alternative of not conducting coyote control measures on Kirtland AFB was analyzed in the EA.

1.1 Alternatives Considered but Eliminated from Detailed Analysis

One alternative considered was for 377 Security Forces personnel to conduct coyote control measures. This alternative was eliminated from detailed analysis because 377 Security Forces personnel are not trained in wildlife control methods and do not meet the selection criteria. Another alternative considered was to capture and relocate aggressive coyotes on the installation. This alternative was eliminated from detailed analysis because there is not a suitable location to relocate the aggressive coyotes where they would not return to the family housing and urban areas on the installation or impact another location within the surrounding area. USDA APHIS WS coyote control methods not considered for use at Kirtland AFB include: aerial shooting, denning, fumigant devices, hunting dogs, and hand capturing. Due to the urban setting of the proposed treatment areas on Kirtland AFB, these methods were not considered for use and eliminated from detailed analysis in this EA.

2. Environmental Analysis

The following summarizes the results of the EA.

Biological Resources. Implementation of the Proposed Action would result in minor, adverse impacts on vegetation because the proposed IWDM activities would include the use of all-terrain vehicles; however, their use would be restricted to established roads and trails.

Minor, adverse impacts to populations of coyotes and wildlife species and their habitats would result from implementation of the Proposed Action. IWDM activities would be directed toward localized populations or individual coyotes on Kirtland AFB that represent a health and safety threat. The scope of the Proposed Action involves a limited number of coyotes and is not attempting to eradicate populations across the installation or in a large area or region. USDA APHIS WS personnel are highly experienced and trained to select the most appropriate method(s) for taking problem animals with little impact on non-target species. They use specific trap types, lures and placements that are favorable to capture the target animal and minimize potential impact on non-target species. USDA APHIS WS monitors kills and provides data on total take of target species to NMDGF, U.S. Fish and Wildlife Service, and others as appropriate. Because of the targeted IWDM control methods that would be implemented in conjunction with the Proposed Action, impacts to coyote populations, other than those individuals presenting a problem on Kirtland AFB, would be minor.

Short-term, negligible, adverse impacts on non-target species and populations are expected to occur. Non-target wildlife species inhabiting the proposed treatment areas might be temporarily displaced due to the presence of USDA APHIS WS personnel and their activities. Certain wildlife species (e.g., Gunnison's prairie dog, desert cottontail) would be expected to temporarily move to adjacent habitats

during IWDM activities and return to the area once activities have ceased. An increase in coyote prey populations would be expected to occur in and around treatment areas with the removal of some of the coyote population. Given the limited number of coyotes that would be taken as part of the Proposed Action and the targeted methods by which USDA APHIS WS would implement the program to avoid direct impacts to other wildlife species.

No federally or state-listed threatened or endangered species are known to inhabit the proposed treatment areas. Therefore, proposed project activities are expected to have no impact on threatened and endangered species.

Safety. Overall, the long-term safety impacts of implementing the Proposed Action would be beneficial. USDA APHIS WS IWDM methods selected to control populations of coyotes and the extensive training of USDA APHIS WS personnel in implementation of these methods would ensure safe execution of the Proposed Action at Kirtland AFB. Ultimately, implementation of the Proposed Action would reduce the risk from aggressive coyote populations to which the installation residents and children are currently exposed.

Implementation of the proposed IWDM activities would not pose a significant potential hazard to the USDA APHIS WS's employee or the public because all methods and materials are consistently used in a manner known to be safe to the user and to the public. Although some of the equipment and methods (i.e., firearm use, snares, and traps) used by USDA APHIS WS have the potential to represent a threat to human health and safety if used improperly, USDA APHIS WS employees implementing the program have extensive training and are certified for the use of the equipment associated with IWDM methods. Per USDA APHIS WS's Directive 2.615, *Wildlife Services (WS) Firearm Use and Safety*, mandatory firearms training is conducted every 2 years. The proper use and safety of IWDM methods is stressed to USDA APHIS WS personnel and many IWDM methods have mandatory compliance requirements associated with their use.

Prior to implementation of the Proposed Action, USDA APHIS WS personnel would coordinate with installation personnel to determine where and when IWDM methods would be used, thereby decreasing the likelihood of conflicts with the public. In addition, notification to installation personnel and their families would be posted in the installation's weekly newspaper and warning signs would be prominently posted stating when and where IWDM activities would be occurring.

Socioeconomics and Environmental Justice. No impacts on socioeconomics and environmental justice would be expected from implementation of the Proposed Action. The Proposed Action would not negatively impact minority populations.

Proposed IWDM activities would have short-term, negligible, adverse impacts on children during implementation of the Proposed Action. However, implementation of the Proposed Action would result in a long-term, beneficial impact by removing aggressive coyote populations from the housing and urban areas of the installation where a high number of children reside. Children may suffer disproportionately from environmental health and safety risks, including their developmental physical and mental status, for many reasons. Because USDA APHIS WS makes it a high priority to identify and assess human health and safety risks, USDA APHIS WS has considered the impacts the Proposed Action might have on children. In accordance with EO13045, all IWDM activities would be conducted using only legally available and approved methods where it is unlikely that children would be adversely affected.

3. Regulations

The Proposed Action would not violate Federal, state, or local environmental regulations.

4. Commitment to Implementation

The USAF affirms their commitment to implement this Proposed Action in accordance with NEPA.

5. Public Review and Comment

The Draft EA was available for public review and comment from 14 July to 27 July 2013 at Central New Mexico Community College, Montoya Library, 4700 Morris NE, Albuquerque, New Mexico 87102 and San Pedro Library, 5600 Trumbull Avenue SE, Albuquerque, New Mexico 87108, and http://www.kirtland.af.mil/. No public comments were received during this review period. One response from the Bureau of Land Management, stating they had no comments, was received.

6. Finding of no Significant Impact

Based on the findings of the EA and as stated above, the USAF believes that the Proposed Action would not generate significant controversy or have a significant impact on the quality of the human or natural environment. The Draft EA and proposed FONSI were made available for a 14-day public review and comment period. After reviewing the comments, if the final determination is that the Proposed Action would have no significant impact, the FONSI will be signed and the action will be implemented. An Environmental Impact Statement will not be prepared. This analysis fulfills the requirements of NEPA and the CEQ Regulations.

22 Aug 13
Date

TOM D. MILLER, Colonel, USAF
Commander
Kirtland Air Force Base

Attachment: Environmental Assessment

FINAL

ENVIRONMENTAL ASSESSMENT
ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

August 2013

ACRONYMS AND ABBREVIATIONS

377 ABW	377th Air Base Wing
AAFES	Army and Air Force Exchange Service
AFB	Air Force Base
AFI	Air Force Instruction
BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DOD	Department of Defense
EA	Environmental Assessment
EO	Executive Order
EOD	Explosive Ordnance Division
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IWDM	Integrated Wildlife Damage Management
MBTA	Migratory Bird Treaty Act
MSA	Metropolitan Statistical Area
NEPA	National Environmental Policy Act
NMDA	New Mexico Department of Agriculture
NMDGF	New Mexico Department of Game and Fish
NOA	Notice of Availability
OSH	occupational safety and health
OSHA	Occupational Safety and Health Administration
PPE	personal protective equipment
SOF	Special Operations Force
USAF	U.S. Air Force
U.S.C.	United States Code
USCB	U.S. Census Bureau
USDA APHIS WS	U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

FINAL

ENVIRONMENTAL ASSESSMENT
ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

377th Air Base Wing
Kirtland Air Force Base, New Mexico

AUGUST 2013

COVER SHEET

FINAL ENVIRONMENTAL ASSESSMENT
ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

Proposed Action: The 377th Air Base Wing (377 ABW) proposes to control packs of aggressive coyotes across Kirtland Air Force Base (AFB) by contracting the United States Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services (USDA APHIS WS) to conduct control methods in accordance with applicable federal, state, and local laws and regulations. Proposed control methods for Kirtland AFB include shooting, calling and shooting, leg hold traps, cage traps, snares, and chemical immobilization and euthanasia.

Report Designation: Final Environmental Assessment (EA)

Responsible Agency: U.S. Air Force, 377 ABW, Kirtland AFB

Affected Location: Kirtland AFB, New Mexico

Abstract: This EA tiers from the USDA APHIS WS Predator Damage Management in New Mexico EA which resulted in a Finding of No Significant Impact. The purpose of the Proposed Action is to control packs of aggressive coyotes across Kirtland AFB that pose a human health and safety risk to installation residents and workers. Recent drought conditions have drastically reduced populations of typical prey in uninhabited areas of the installation. With steady populations of prey seeking food sources in the urban and housing areas of the installation, the presence of coyotes in these areas has increased. This has resulted in coyotes hunting domestic animals and a fearless relationship toward the human presence in family housing where young children could be viewed as potential prey. Human health and safety concerns include: human attacks from coyotes that result in injuries or death and disease threats from rabies and plague outbreaks where predators act as carriers. To date, Kirtland AFB has received one confirmed report of an attack on a pet in the family housing area and several unconfirmed reports. Residents have observed coyotes walking along concrete block walls bordering their yards. The implementation of the Proposed Action would reduce human health and safety risks at Kirtland AFB posed by aggressive coyote populations.

Coyotes are not protected by state or federal regulations or statutes and are considered predatory animals. However, by statute, the New Mexico Department of Game and Fish (NMDGF) has the responsibility to manage predator damage, including coyote predation, to other wildlife. USDA APHIS WS, under a Joint Powers Agreement and contract assists NMDGF with responding to predatory animal complaints. USDA APHIS WS assists residents, Tribes, or other federal agencies, especially in urban areas, concerned about coyote attacks on their pets and their apparent loss of fear for humans. USDA APHIS WS proposes to accomplish coyote control on Kirtland AFB by developing a base-specific Integrated Wildlife Damage Management program. The Wildlife Specialist would ensure that the most effective, efficient, and humane methods would be utilized.

The analysis in the EA considers the Proposed Action and the No Action Alternative. Three alternatives to the Proposed Action were considered, but eliminated from detailed analysis due to not meeting the selection criteria. The implementation of the Proposed Action at Kirtland AFB is not anticipated to result in significant environmental impacts.

For additional information on this EA, contact Kirtland AFB NEPA Program Manager by mail at 377 MSG/CEIE, 2050 Wyoming Boulevard SE, Suite 125, Kirtland AFB, NM 87117-5270, or by email to nepa@kirtland.af.mil.

FINAL ENVIRONMENTAL ASSESSMENT
ADDRESSING PROPOSED COYOTE CONTROL ACROSS KIRTLAND AIR FORCE BASE, NEW MEXICO

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1. Purpose of and Need for Action

1.1 Introduction

This Environmental Assessment (EA) tiers from the United States Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services (USDA APHIS WS) Predator Damage Management in New Mexico Environmental Assessment which resulted in a Finding of No Significant Impact (FONSI) (USDA APHIS WS 2006). A copy of the signed FONSI is included as **Appendix A**. A copy of the USDA APHIS WS EA can be found at http://www.aphis.usda.gov/regulations/pdfs/nepa/NM%20PDM%20EA%202006.pdf. The USDA APHIS WS reviews the EA annually for its continued validity. This section describes the purpose of and need for the Proposed Action at Kirtland Air Force Base (AFB), provides summaries of the scope of the environmental review process and the applicable regulatory requirements, and presents an overview of the organization of the document.

Federal agencies are required to consider the environmental consequences of proposed actions in the decision-making process under the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] Sections 4321 to 4370d) and the Council on Environmental Quality's (CEQ) implementing regulations for NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508). Kirtland AFB is also required to consider U.S. Air Force (USAF) NEPA-implementing regulation (32 CFR 989), and Department of Defense (DOD) Instruction 4715.9, *Environmental Planning Analysis*. This EA evaluates the potential environmental impacts associated with the coyote control across Kirtland AFB for the 377th Air Base Wing (377 ABW).

Kirtland AFB is just southeast of Albuquerque, New Mexico (see **Figure 1-1**), at the foot of the Manzano Mountains. These mountains define the eastern boundary of an area called East Mesa. Kirtland AFB encompasses 51,585 acres of the East Mesa and has an average elevation of 5,400 feet above mean sea level. Land uses for areas adjacent to the installation include Cibola National Forest to the northeast and east, the Isleta Indian Reservation and Cibola National Forest (including Manzano Wilderness Area) to the south, and residential and business areas of the city of Albuquerque to the west and north.

Kirtland AFB was established in the late 1930s as a training base for the Army Air Corps. In 1941, construction of permanent barracks, warehouses, and a chapel was completed and a B-18 bomber, Kirtland AFB's first military aircraft, arrived. Troops soon followed, and Kirtland AFB grew rapidly with United States' involvement in World War II. The installation served as a training site for aircrews for many of the country's bomber aircraft, including the B-17, B-18, B-24, and the B-29. After World War II, Kirtland AFB shifted from a training facility to a test and evaluation facility for weapons delivery, working closely with both Los Alamos National Laboratory and Sandia National Laboratories. In 1971, Kirtland AFB and its adjoining neighbor to the east, Sandia Army Base, were combined. The two divisions of the installation are still referred to as Kirtland West and Kirtland East, respectively. Kirtland AFB is now operated by the 377 ABW.

The 377 ABW is a unit of the Air Force Materiel Command and is the host unit at Kirtland AFB. The 377 ABW's prime mission is to support more than 150 mission partners with personnel, resources, equipment, and facilities. The installation functions as a test and evaluation center for the Air Force Research Laboratory, Space and Missile Systems Center, and Air Force Operational Test and Evaluation Center; and it is the headquarters for operational organizations, such as the Air Force Inspection Agency and Sandia National Laboratories. Kirtland AFB also functions as a training base for the 58th Special Operations Wing of the Air Education and Training Command. The 150th Fighter Wing of the New Mexico Air National Guard is also stationed at the installation. The 377 ABW provides fire protection (including crash and rescue) for Albuquerque International Sunport.

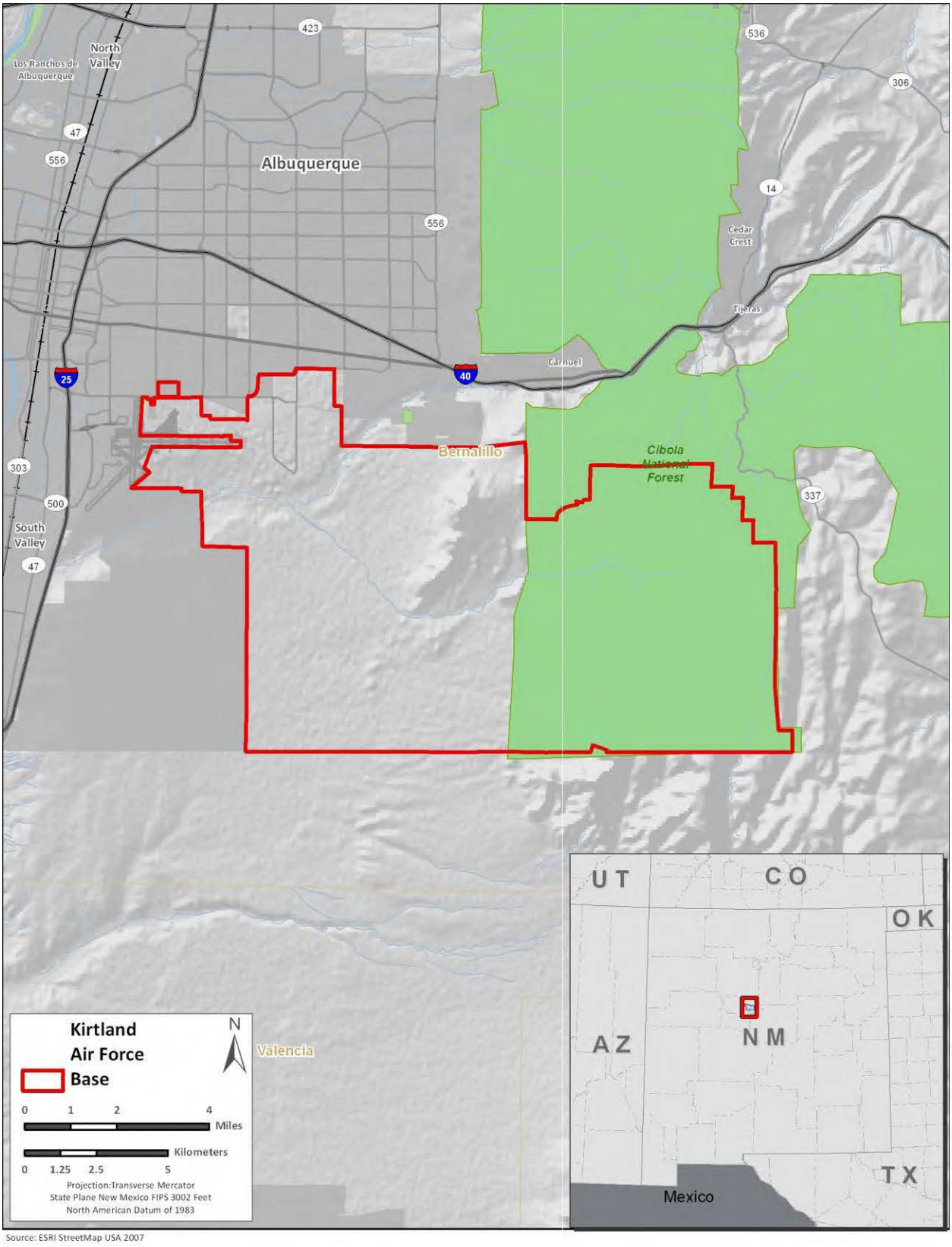

Figure 1-1. Kirtland AFB Location Map

The EA is organized into six sections and four appendices. **Section 1** states the purpose, need, scope, and public involvement efforts for the Proposed Action. **Section 2** contains a detailed description of the Proposed Action and the alternatives considered. **Section 3** describes the existing conditions of the potentially affected environment. **Section 4** identifies the environmental consequences of implementing all reasonable alternatives, including direct, indirect, and cumulative impacts. **Section 5** provides the names of those persons and agencies consulted for the EA. **Section 6** lists the references used to support the analyses.

1.2 Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to control packs of aggressive coyotes across Kirtland AFB that are posing human health and safety risks to installation residents and workers. Coyotes are not a species protected by New Mexico Department of Game and Fish (NMDGF) or U.S. Fish and Wildlife Service (USFWS) and are classified as mammalian predators that cause frequent damage to natural resources, property (i.e., pets), and threaten human health and safety.

The need for the Proposed Action is to address concerns resulting from recent drought conditions combined with unapproved feeding of wildlife, which have produced aggressive packs of coyotes, especially in the family housing and urban areas of the installation. To date, approximately three packs consisting of two to five coyotes have been reported to be causing problems. Recent drought conditions have drastically reduced populations of typical prey (i.e., Gunnison's prairie dog and desert cottontail) in uninhabited areas of the installation; however, the installation's maintained, urban, landscapes provide ideal habitat for coyote prey. With steady populations of prey seeking food sources in the urban and housing areas of the installation, presence of coyotes in the urban areas has increased. Their opportunistic behavior has resulted in their hunting of pets and an overexposure to humans, creating a fearless relationship toward the human presence in family housing where young children could be viewed as potential prey. Human health and safety concerns include: human attacks from coyotes that result in injuries or death and disease threats from rabies and plague outbreaks where predators act as carriers. Infected coyotes may also spread diseases to the pets they encounter. To date, Kirtland AFB has received one confirmed report of an attack on a pet in the family housing area and several unconfirmed reports. Residents have observed coyotes walking along concrete block walls bordering their yards and in close proximity to residential housing areas. This combination creates an increased risk to human health and safety for those who live and work on Kirtland AFB.

1.3 Scope of the EA

Scope consists of the range of actions, alternatives, and impacts to be considered. The scope of the Proposed Action and the range of alternatives to be considered are presented in detail in **Section 2**. This EA tiers from the USDA APHIS WS Predator Damage Management in New Mexico EA which resulted in a FONSI (USDA APHIS WS 2006). The USDA APHIS WS program responds to a variety of requests for assistance from individuals, and private and public organizations and agencies experiencing damage caused by wildlife in New Mexico. The EA describes and analyzes USDA APHIS WS' involvement in a portion of Integrated Wildlife Damage Management (IWDM) activities in New Mexico, specifically the management of predators. The USDA APHIS WS's IWDM activities are conducted in cooperation with other federal, state, and local agencies, as well as private organizations and individuals. USDA APHIS WS cooperates with the New Mexico Department of Agriculture (NMDA) and NMDGF in providing assistance with requests for IWDM services. USDA APHIS WS followed CEQ regulations implementing NEPA (40 CFR 1500–1508) and the USDA regulations implementing NEPA (7 CFR 372).

In accordance with CEQ regulations implementing NEPA (40 CFR 1500–1508), the No Action Alternative will be analyzed to provide the baseline against which the environmental impacts of implementing the range of alternatives addressed can be compared. This EA identifies appropriate mitigation measures that are not already included in the Proposed Action or alternatives in order to avoid, minimize, reduce, or compensate for adverse environmental impacts. The EA examines the environmental impacts of the Proposed Action and No Action Alternative on the following resource areas: biological resources, safety, and socioeconomics and environmental justice. The characterization of the affected environment, or baseline environmental conditions, is discussed in **Section 3**; however, per CEQ regulations (40 CFR 1501.7 [a][3]), only those resource areas that apply to the Proposed Action are analyzed. An analysis of potential direct, indirect, and cumulative impacts on Kirtland AFB associated with the Proposed Action and No Action Alternative is discussed in **Section 4**.

1.3.1 Issues and Concerns Eliminated from Detailed Study

The Air Force initially considered a broad range of potential environmental impacts associated with the implementation of the Proposed Action and alternatives. The scope of the Proposed Action and alternatives is limited, however, and does not entail land disturbance, construction, demolition, land use changes or other activities evaluated in NEPA analyses that routinely lead to environmental impacts. Because of the limited nature of activities being proposed, the potential for environmental impacts to many of the environmental resource areas normally evaluated in detail, does not exist for this proposal. In accordance with CEQ guidance, environmental resources were initially considered, but subsequently eliminated from further consideration in the EA if a determination was made that there was no potential for impacts. The following issues and concerns were determined to have limited potential for environmental impacts and therefore are not being evaluated in this EA:

- Land Use – Because there are no demolition and construction activities associated with the Proposed Action, which would result in changes to current land use designations at the installation, land use was eliminated from further analysis (KAFB 2011a).
- Noise – Although proposed project activities could include the intermittent use of firearms (i.e., suppressed .22-250s and 12-gauge shotguns) and coyote calling methods, Kirtland AFB is requesting that only suppressed .22-250s be used in areas adjacent to sensitive noise receptors in the family housing area. Typical noise levels of a 12-gauge shotgun are 151.50 decibels. Noise levels of a .22-250 rifle would be comparable. Suppressors on a .22 rifle lower noise levels by 33 to 40 decibels. Because of the intermittent nature of the use of firearms and coyote calling methods conducted in association with the Proposed Action in relation to urban noise levels in the adjacent city setting (e.g., sirens, vehicle traffic, yard maintenance equipment, playgrounds), discussion of impacts to noise was not carried forward for further analysis.
- Visual Resources – Proposed project activities would not result in changes to any visual resources on the installation.
- Air Quality – The Proposed Action would occur in a carbon monoxide maintenance area; however, the regulatory authority has approved a carbon monoxide limited maintenance plan eliminating the need for a general conformity analysis. Proposed project activities would not introduce additional emission sources, green house gases, or generate fugitive dust on the installation.
- Geology and Soils – Proposed project activities do not include any ground-disturbing activities which would impact the geology or result in soil erosion on the installation.
- Water Resources – There are no natural lakes or rivers on Kirtland AFB. There are 10 wetlands supplied by at least 15 naturally occurring springs on the installation. The two main surface

water drainage channels on Kirtland AFB are Tijeras Arroyo and the smaller Arroyo del Coyote, which joins Tijeras Arroyo approximately 1 mile west of the Tijeras Arroyo Golf Course. Proposed project activities would not occur near any water resources on the installation and do not include any ground-disturbing activities. Activities conducted in association with the Proposed Action, therefore, would not alter any natural or manmade sources of water on the installation and discussion of impacts to water resources was not carried forward for further analysis.

- Cultural Resources – There have been more than 150 cultural resources projects undertaken at Kirtland AFB. These projects have resulted in the identification of 661 archaeological sites and the evaluation of more than 2,000 facilities for the National Register of Historic Places. Of the 661 archaeological sites recorded within the boundaries of Kirtland AFB, most are in the eastern portion of the installation. Each of the IWDM methods described in the USDA APHIS WS EA that might be used operationally by USDA APHIS WS do not cause ground disturbance; do not cause any physical destruction or damage to property; do not cause any alterations of property, wildlife habitat, or landscapes; and do not involve the sale, lease, or transfer of ownership of any property. In general, such methods also do not have the potential to introduce visual, atmospheric, or audible elements to areas in which they are used that could result in effects on the character or use of historic properties. Therefore, the methods used by USDA APHIS WS under the Proposed Action are not the types of activities that would have the potential to affect historic properties (USDA APHIS WS 2006). Although proposed project activities could include the use of all-terrain vehicles in the proposed treatment areas on the installation, use would be confined to established roads and trails, and therefore, would not affect any cultural resources on the installation.
- Transportation and Infrastructure – Proposed project activities would not result in any changes to the existing infrastructure or overburden the existing transportation system on the installation.
- Hazardous Materials and Waste – Although proposed project activities could include the use of chemical immobilization and euthanasia drugs, they would be used in a highly controlled environment by USDA APHIS WS professionals who have been trained and certified by the U.S. Environmental Protection Agency (USEPA) and the NMDA and would pose no risk to the base population or the natural environment. Spent cartridges would be policed prior to leaving a treatment area.

1.3.2 Environmental Laws, Regulations, Executive Orders, and Permits

To comply with NEPA (Public Law 91-190, 42 U.S.C. 4321 et. seq.), the planning and decision-making process involves a study of other relevant environmental laws, regulations, and Executive Orders (EOs). The NEPA process does not replace procedural or substantive requirements of other environmental laws; it addresses them collectively in an analysis, which enables decision makers to have a comprehensive view of major environmental issues and requirements associated with the Proposed Action. According to CEQ regulations, the requirements of NEPA must be integrated "with other planning and environmental review procedures required by law or by agency practice so that all such procedures run concurrently rather than consecutively" (40 CFR 1500.2).

As required in 40 CFR 1500.2(c), the EA considered federal permits, licenses, and coordination that might be required in implementing the Proposed Action or alternatives. None were deemed required.

Appendix B contains summaries of the environmental laws, regulations, and EOs that might apply to this project. Where relevant, these laws are described in more detail in the appropriate resource areas

presented in **Section 3** of the EA. The scope of the analysis of potential environmental consequences in **Section 4** considers direct, indirect, and cumulative impacts.

1.4 Interagency Coordination and Public Involvement

NEPA requirements help ensure that environmental information is made available to the public during the decision-making process and prior to actions being taken. The premise of NEPA is that the quality of Federal decisions would be enhanced if proponents provide information to the public and involve the public in the planning process. The Intergovernmental Coordination Act and EO 12372, *Intergovernmental Review of Federal Programs*, require Federal agencies to cooperate with and consider state and local views in implementing a Federal proposal. Air Force Instruction (AFI) 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning (IICEP)*, requires the USAF to implement an agency coordination process, which is used for the purpose of facilitating and receiving agency input coordination and implements scoping requirements.

Through the IICEP process, Kirtland AFB provided the Draft EA to relevant federal, state, and local agencies to share the analysis of the Proposed Action and alternatives and provide them sufficient time to make known their environmental concerns specific to the action. The IICEP process also provides Kirtland AFB the opportunity to cooperate with and consider state and local views in implementing the federal proposal. Isleta Pueblo, Tribal landowner adjacent to the southern boundary of the installation, was also notified of the Proposed Action, and provided an opportunity to comment on the Proposed Action. All IICEP, tribal consultation and public involvement materials related to the EA are included in **Appendix C**. The agencies, Isleta Pueblo, and other stakeholders contacted are also in **Appendix C**.

A Notice of Availability (NOA) for the Draft EA was published in *The Albuquerque Journal* on 14 and 15 July 2013. The publication of the NOA initiated a 14-day review period. At the closing of the public review period, no comments from the general public had been received. One response from the Bureau of Land Management (BLM), stating they had no comments, was received. A copy of the BLM response can be found in **Appendix C**.

2. Description of Proposed Action and Alternatives

As discussed in **Section 1.1**, the NEPA process provides for an evaluation of potential environmental consequences associated with a proposed action and considers alternative courses of action. Reasonable alternatives must satisfy the purpose of and need for the proposed action, as defined in **Section 1.2**. In addition, CEQ regulations also specify the inclusion of a No Action Alternative against which potential impacts would be compared. While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, it is analyzed in detail in accordance with CEQ regulations.

2.1 Proposed Action

The 377 ABW at Kirtland AFB, New Mexico, proposes to control packs of aggressive coyotes across Kirtland AFB by contracting USDA APHIS WS to conduct control methods in accordance with applicable federal, state, and local laws and regulations. To date, approximately three packs consisting of two to five coyotes have been reported to be causing problems in the family housing and urban areas of the installation. Coyotes are not protected by state or federal statutes or regulations and are considered predatory animals. However, by statute, NMDGF has the responsibility to manage predator damage, including coyote predation, to other wildlife. USDA APHIS WS, under a Joint Powers Agreement and contract assists NMDGF with responding to predatory animal complaints. USDA APHIS WS assists residents, Tribes, or other federal agencies, especially in urban areas, concerned about coyote attacks on their pets and their apparent loss of fear for humans. Recommendations provided by USDA APHIS WS are generally made to consider exclusion methods to reduce human health and safety concerns, but the animals present are often removed. IWDM methods to be implemented would encourage the use of all available legal techniques and methods, used singly or in combination, to meet the needs to resolve conflicts with predators (USDA APHIS WS 2006).

According to the USDA APHIS WS "*the mission of Wildlife Services (WS) is to provide Federal leadership in managing problems caused by wildlife. WS recognizes that wildlife is an important public resource greatly valued by the American people. By its very nature, however, wildlife is a highly dynamic and mobile resource that can damage agricultural and industrial resources, pose risks to human health and safety, and affect other natural resources. The WS program carries out the Federal responsibility for helping to solve problems that occur when human activity and wildlife are in conflict with one another. The WS program strives to develop and use wildlife damage management strategies that are biologically sound, environmentally safe, and socially acceptable. WS also strives to reduce damage caused by wildlife to the lowest possible levels while at the same time reducing wildlife mortality. This approach represents the future towards which WS is moving. In charting this course, WS must continuously improve and modify wildlife damage management strategies"* (USDA APHIS WS 2010). Predator damage management is conducted to protect agricultural and natural resources, property, and human health and safety from predators and has been conducted since the 1920s in New Mexico by USDA APHIS WS (USDA APHIS WS 2006).

Direct control support has been provided for situations that require the use of methods and techniques that are difficult or dangerous for the public to implement, especially those that involve lethal control methods, and where USDA APHIS WS's expertise in predator damage management is of value. IWDM methods to be implemented would encourage the use of all available legal techniques and methods, used singly or in combination, to meet the needs to resolve conflicts with predators. Most wildlife damage situations require professional expertise, an organized control effort, and the use of several of the available IWDM methods to sufficiently resolve them. The resources, species, location and type of damage, and the available biologically sound, cost-efficient, legal IWDM methods are analyzed by USDA APHIS WS personnel to determine the action(s) necessary to be taken to correct a conflict with a predator. Most non-lethal methods, whether applied by USDA APHIS WS or resource owners, are

employed to prevent damage from occurring. Unfortunately, non-lethal IWDM methods are only effective for a short period of time before wildlife become accustomed to them and are generally only practical for small areas. IWDM control methods for problem coyotes used by USDA AHIS WS personnel include shooting, calling and shooting, aerial shooting, leg hold traps, cage traps, snares, chemical immobilization and euthanasia, denning, gas cartridges, hunting dogs, and hand-capture (USDA APHIS WS 2006). Proposed IWDM control methods for Kirtland AFB include shooting, calling and shooting, leg hold traps, cage traps, snares, and chemical immobilization and euthanasia.

2.1.1 Coyote Control Methods

USDA APHIS WS proposes to accomplish coyote control on Kirtland AFB by providing one Wildlife Specialist for up to 123 hours per year for an IWDM program. Per the Work and Financial Plan between Kirtland AFB and USDA APHIS WS (see **Appendix D**), the Wildlife Specialist would safely and professionally utilize approved wildlife damage management equipment including firearms (i.e., suppressed .22-250s and 12-gauge shotguns), advanced optics, assorted snaring devices, all-terrain vehicles, leg hold traps for the protection of public safety, cage-type and other specialized traps, deterrent methods/devices, USEPA-approved euthanasia drugs, night vision equipment, and electronic calling devices. Kirtland AFB has requested that only suppressed .22-250 firearms be used in vacant areas adjacent to sensitive noise receptors (i.e., base housing). All firearm activities would be conducted to ensure weapon's discharge would be directed away from populated areas both on and off Kirtland AFB.

Shooting is conducted with rifles and shotguns and is very selective for the target species. It is limited to locations where it is legal and safe to discharge firearms. Shooting is rarely used alone as a primary IWDM method in control operations because, for many species, opportunities to shoot a target animal are random and unpredictable and especially problematic for nocturnal species. However, shooting predators is frequently performed in conjunction with calling, particularly coyotes. Voice calls, handheld mouth-blown calls, and electronic calls can be used to mimic the target species vocalizations (i.e., coyote howls) or prey (e.g., injured jackrabbit and chicken vocalizations). Trap-wise coyotes are often vulnerable to calling. Target animals are often lured into close range of the Wildlife Specialist with calling making shooting more effective. Shooting in conjunction with night vision equipment including goggles or scopes is sometimes used in areas where traditional methods are unsuccessful. Most of the predators are nocturnal and easier to take at night. Additionally, this method is especially effective in high daytime, public use areas where problems with predators are occurring and the use of IWDM methods would make it unsafe for the public (USDA APHIS WS 2006).

Leg hold traps are versatile and widely used by USDA APHIS WS in New Mexico for capturing many species. They are frequently used by USDA APHIS WS to capture most predators. Traps are placed in the travel lanes of the targeted animal, using location to determine trap placement rather than attractants, are known as "blind sets". More frequently, traps are placed as "baited" or "scented" sets. These trap sets use an attractant consisting of visual attractants (i.e., feathers) or food bases, such as fetid meat, urine, or musk to attract the animal. In some situations, a draw station such as a carcass, animal parts, or a large piece of meat is used to attract target predators (USDA APHIS WS 2006). Once trapped, the coyote would be killed.

Cage traps come in a variety of styles to target different species. The most commonly known cage traps used in the current USDA APHIS WS' program are box traps. Box traps are usually rectangular, made from wood or heavy gauge wire mesh. These traps are used to capture animals alive and can often be used where many lethal or more dangerous tools would be too hazardous. Box traps are well suited for use in residential areas; however, they are mostly ineffective for capturing coyotes. Cage traps usually work best when baited with foods attractive to the target animal. They are used to capture animals ranging in size from mice to deer, but are usually impractical in capturing most large animals. Cage traps

have a few drawbacks as some individual target animals avoid cage traps (USDA APHIS WS 2006). Once trapped, the coyote would be killed.

Snares are made of wire or cable and can be used effectively to catch most species, but are most frequently used in the capture of coyotes. Snares maybe employed as either lethal or live-capture devices depending on how or where they are set. Snares set to capture an animal by the neck are usually lethal. Snares can be used effectively wherever a target animal moves through a restricted lane of travel (e.g., crawls under fences or trails through vegetation). When an animal moves forward into the loop formed by the cable, the noose tightens and the animal is killed. The foot snare is a spring-powered nonlethal device, activated when an animal places its foot on the trigger. Several foot snare designs have been developed to capture smaller predators such as coyotes. In some situations using snares to capture wildlife is impractical due to the behavior or anatomy of the animal. Snares must be set in locations where the likelihood of capturing non-target animals is minimized. Once snared, the coyote would be killed.

Chemical immobilizing and euthanizing drugs are involved in the capture of animals where the safety of USDA APHIS WS personnel or the public are compromised. Chemical immobilization has been used to take coyotes in residential areas where public safety is at risk. USDA APHIS WS employees that use immobilizing drugs are certified for their use and follow the guidelines established in the USDA APHIS WS *Field Operational Manual for the Use of Immobilization and Euthanasia Drugs*. Immobilizing drugs are used by USDA APHIS WS personnel to capture and remove predators from urban, recreational, and residential areas where the safe removal of a problem animal is easily accomplished with a drug delivery system. Drugs are monitored closely and stored in locked boxes or cabinets according to USDA APHIS WS policies, Department of Justice, and Drug Enforcement Administration guidelines. Immobilization would be followed by euthanasia.

Prior to project implementation, USDA APHIS WS personnel would coordinate with installation personnel on reported problem areas, observe these areas, and develop recommendations to address the issues in these areas. Most issues on Kirtland AFB are occurring in the family housing and urban areas. **Figure 2-1** presents the proposed treatment areas on the installation. The Wildlife Specialist would ensure that the most effective, efficient, and humane methods would be utilized and would conduct direct control operations in a safe manner. All equipment would be maintained in good working order to prevent accidents or hazardous situations.

2.2 Alternative Selection Criteria

In accordance with 32 CFR Part 989.8(c), the development of alternative-selection criteria is an effective mechanism for the identification, comparison, and evaluation of reasonable alternatives. The following selection criteria were developed to be consistent with the purpose of and need for the Proposed Action and to address pertinent mission, environmental, safety, and health factors. These alternative-selection criteria were used to identify reasonable alternatives for analysis in this EA.

- Reduce population of aggressive coyotes across Kirtland AFB to reduce the risk to human health and safety to those living and working on the installation.
- Ensure coyote control methods are conducted in a safe manner by trained professionals.
- Any method for accomplishing control of aggressive coyote populations must not endanger installation residents.
- Coyote control methods cannot conflict with or preclude the ability of the installation to conduct military operations.
- Methodologies for coyote control must involve humane treatment of animals and avoid unnecessary suffering.

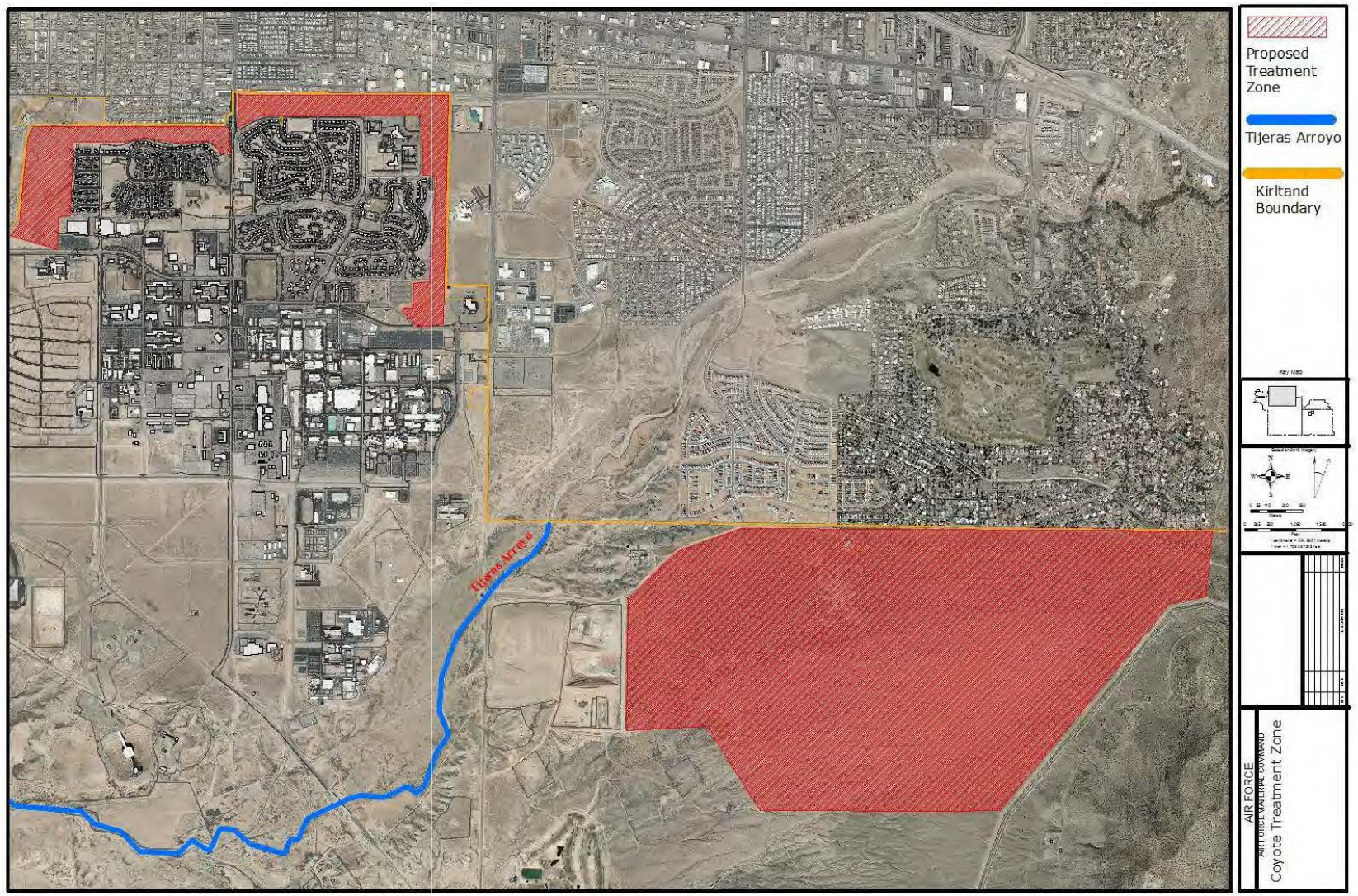

Figure 2-1. Proposed Treatment Areas on Kirtland AFB

2.3 No Action Alternative

CEQ regulations specify the inclusion of the No Action Alternative in the alternatives analysis (40 CFR 1502.14). The No Action Alternative is analyzed to provide a baseline of the existing conditions against which the potential environmental and socioeconomic impacts of the Proposed Action and alternative actions can be compared. Under the No Action Alternative, the 377 ABW would not conduct coyote control methods on Kirtland AFB. Coyotes would continue to hunt in the housing and urban areas of the installation, thereby increasing risks to human health and safety of those who live and work on the installation.

2.4 Alternatives Considered but Eliminated from Detailed Analysis

2.4.1 Implementation of Coyote Control Methods by Installation Security Forces

One alternative considered was for coyote control methods to be conducted by 377 Security Forces personnel. This alternative was eliminated from detailed analysis because 377 Security Forces personnel are not trained in wildlife control methods and do not meet the selection criteria outlined in **Section 2.2**.

2.4.2 Capture and Relocation

Another alternative considered was the capture and relocation of aggressive coyotes on the installation. Relocation is the capturing of an animal using a nonlethal method and placing the animal at a new site, far enough away so the animal will not return. With current drought conditions, on an installation the size of Kirtland AFB, there is not a suitable location to relocate the aggressive coyotes where they would not return to the family housing and urban areas on the installation. As stewards of the environment, Kirtland AFB cannot, in good conscience, relocate its problematic coyote population to a site where there is not a viable source of food or where they would impact another location within the city of Albuquerque or other surrounding areas.

2.4.3 Wildlife Services' Coyote Control Methods Not Considered

The following USDA APHIS WS' coyote control methods were not considered for implementation at Kirtland AFB:

- Aerial shooting (shooting from an aircraft) is commonly used as an IWDM method on lands where authorized and deemed appropriate. USDA APHIS WS uses aircraft to intercept and shoot coyotes at locations where they have killed livestock and where terrain and cover conditions are favorable (i.e., good visibility and little vegetative ground cover). Aerial shooting was not considered a viable option due to the urban setting on the installation and surrounding area as well as the installation's close proximity to the Albuquerque International Sunport where additional aircraft could result in air traffic control congestion and conflicts.
- Denning is the practice of seeking out the dens of coyotes, excavating them, and destroying the young, adults, or both. It is used in coyote damage management efforts, but is limited because dens are often difficult to locate and use by a target animal is restricted to about 2 to 3 months during the spring. It is labor intensive with no guarantee of finding the den of the target animal. Denning is very target-specific and is most often used in open terrain where dens are easy to find. Denning was not considered a viable option because Kirtland AFB is only concerned with removing the aggressive packs of coyotes present in the housing and urban areas of the installation.

- Gas cartridges are fumigant devices that emit gases to take burrowing wildlife and reduce damage associated with them. USDA APHIS WS only uses gas cartridges in coyote dens. Then ignited, the cartridge burns in the den of the target animal and produces large amounts of carbon monoxide, a poisonous gas. The combination of depleting the oxygen and exposure to the carbon monoxide kills the animals in the den. Because the use of gas cartridges is conducted in conjunction with denning, Kirtland AFB is not considering this method.
- Hunting dogs include tracking, decoy and trap-line companion dogs. Tracking dogs are commonly used to track and "tree" wildlife species such as black bears, cougars, and bobcats. Though not as common, they are sometimes trained to track coyotes. The possibility exists that tracking dogs will switch to a fresher trail of a non-target species while pursuing the target species. Decoy dogs are commonly used in coyote damage management in conjunction with calling. Dogs are trained to spot, lightly engage, and lure coyotes into close shooting range for the Wildlife Specialist. They are effective for territorial pairs of coyotes. Trap-line companion dogs often accompany Wildlife Specialists in the field while setting and checking equipment. They are effective in finding sites to set equipment by alerting the Wildlife Specialist to areas where coyotes have travelled. Use of hunting dogs was not considered a viable method for Kirtland AFB due to the location of the proposed treatment areas in relation to the housing and urban areas of the installation.
- Hand capture involves the use of catch-poles. Catch-poles consist of a hollow pipe with a snare cable or rope that forms an adjustable noose at one end and tightens around an animal. Catch poles are used primarily used to remove live animals from traps without danger to or from the captured animal. Because Kirtland AFB is concerned with removing aggressive coyotes rather than relocating them, this method was considered to be unnecessary.

2.5 Comparative Summary of Impacts

Potential environmental impacts of the Proposed Action would be those associated with the implementation of WS IWDM coyote control methods at Kirtland AFB. Table 2-1 presents a summary of potential impacts associated with the Proposed Action and the No Action Alternative.

Table 2-1. Summary of Potential Impacts of the Proposed Action and the No Action Alternative

Resource Area	Proposed Action	No Action Alternative
Biological Resources	Minor, adverse impacts on vegetation would result because the proposed IWDM activities include the use of all-terrain vehicles; however, their use would be restricted to established roads and trails. Minor, adverse impacts to populations of coyotes and wildlife species and their habitats would result; however, IWDM activities would be directed toward localized populations or individual coyotes that represent a health and safety threat. Short-term, negligible, adverse impacts on non-target species and populations are expected to occur; because they would temporarily move to adjacent habitats during IWDM activities and return to the area once activities have ceased. No federally or state-listed threatened or endangered species are known to inhabit the proposed treatment areas; therefore, no impact on threatened and endangered species would occur.	Existing biological resources conditions would remain the same.
Safety	Overall, the long-term safety impacts of implementing the Proposed Action would be beneficial. Implementation of the Proposed Action would reduce the risk from aggressive coyote populations to which the installation residents and children are currently exposed. Proposed IWDM activities would have short-term, negligible, adverse impacts on military personnel and public safety during implementation of the Proposed Action. However, prior to implementation of the Proposed Action, notification to installation personnel and their families would be posted in the installation's weekly newspaper and warning signs would be prominently posted stating when and where IWDM activities would be occurring.	Coyotes would continue to hunt in housing and urban areas in the installation, thereby increasing risks to human health and safety to those who live and work on the installation; therefore, adverse impacts would be expected to continue.
Socioeconomics and Environmental Justice	No impacts on socioeconomics and environmental justice would be expected. During implementation of the Proposed Action, short-term, negligible, adverse impacts on children would be expected. However, a long-term, beneficial impact would result by removing aggressive coyote populations from the housing and urban areas of the installation where a high number of children reside.	No impacts on socioeconomics and environmental justice would occur. Aggressive coyote populations would continue to hunt in housing and urban areas of the installation; therefore, the potential for adverse impacts to children residing within these areas would continue.

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3. Description of the Affected Environment

All potentially relevant resource areas were initially considered for analysis in this EA. In compliance with NEPA and CEQ guidelines, the discussions of the affected environment in **Section 3** and the environmental consequences in **Section 4** focus only on those resource areas considered potentially subject to impacts and with potentially significant environmental issues. This section includes biological resources, safety, and socioeconomics and environmental justice.

3.1 Biological Resources

3.1.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats in which they occur, and native or introduced species found in landscaped or disturbed areas. Applicable laws, regulations, and policies regarding biological resources are included in **Appendix B**. Protected species are defined as those listed as threatened, endangered, or proposed or candidate for listing by the USFWS; New Mexico Energy, Minerals, and Natural Resources Department; or NMDGF. Federal species of concern are not protected by law; however, these species could become listed, and therefore are given consideration when addressing biological resource impacts of an action.

Sensitive habitats include those areas designated by the USFWS as critical habitat protected by the Endangered Species Act (ESA) and sensitive ecological areas as designated by state or federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer/winter habitats).

The New Mexico Wildlife Conservation Act (New Mexico Statutes Annotated 17-2-37) authorizes the NMDGF to create a list of endangered or threatened wildlife within the state, and to take steps to protect and restore populations of species on the list. Actions causing the death of a state endangered animal are in violation of the Wildlife Conservation Act. In addition, USFWS and NMDGF maintain lists of species considered to be particularly sensitive or at risk.

3.1.2 Existing Conditions

Kirtland AFB lies at the intersection of four major North American physiographic and biotic provinces: the Great Plains, Great Basin, Rocky Mountains, and Chihuahuan Desert. Vegetation and wildlife found within Kirtland AFB are influenced by each of these provinces, the Great Basin being the most dominant. Elevations at Kirtland AFB range from approximately 5,200 feet in the west to almost 8,000 feet in the Manzanita Mountains, providing a variety of ecosystems. Five canyons (i.e., Lurance, Sol se Mete, Bonito, Otero, and Madera) are in the eastern portion of the installation; a few smaller canyons occur on Manzano Base. Kirtland AFB is near three regional natural areas: Sandia Mountain Wilderness Area, Sandia Foothills Open Space, and the Rio Grande Valley State Park. The Sandia Mountain Wilderness Area, encompassing 37,877 acres, is approximately 5 miles north of the eastern portion of the installation. This area is home to many species of plants and animals and is also within an important raptor migration route (KAFB 2012).

Vegetation. Four main plant communities are found on Kirtland AFB: grassland (includes sagebrush steppe and juniper woodlands), piñon-juniper woodlands, ponderosa pine woodlands, and riparian/wetland/arroyo. Grassland and piñon-juniper woodlands are the dominant vegetative communities at Kirtland AFB. The riparian/wetland/arroyo community is confined to drainages and

isolated areas inundated by surface water during at least some part of the year. The ponderosa pine woodland community is found along the eastern boundary of the installation (KAFB 2012). The family housing areas have been planted with urban landscaped vegetation. Areas surrounding the housing area are mostly disturbed grassland.

Grassland Community. This community is found between elevations of 5,200 and 5,700 feet at Kirtland AFB. The grassland community at Kirtland AFB was further delineated into two community types: sagebrush steppe in the western portion of the installation and juniper woodlands in the eastern portion. In the sagebrush steppe the understory is less dense, with cryptogamic crust covering areas of exposed ground. Juniper woodlands are similar to the grasslands to the east except for the greater abundance of one seeded juniper (*Juniperus monosperma*). The presence of this shrubby tree creates a savanna-like habitat in an otherwise treeless area. Juniper woodlands are found at a slightly higher elevation than the surrounding grassland. This habitat type provides a transition into piñon-juniper woodlands (KAFB 2012).

Piñon-Juniper Woodland Community. The piñon-juniper woodland community ranges in elevation from 6,300 to 7,500 feet. This plant community is composed of primarily Colorado piñon pine and one seeded juniper, with an understory of shrubs and grasses (KAFB 2012).

Ponderosa Pine Woodland Community. The ponderosa pine woodland community is found in the highest elevations of the eastern portion of the installation. It is typically found between 7,600 to 7,988 feet (KAFB 2012).

Riparian/Wetland/Arroyo Community. The riparian/wetland/arroyo community consists of species that have a greater moisture requirement than species common to the other communities on the installation. These plant communities are found along Tijeras Arroyo, Arroyo del Coyote, and at the various springs located throughout Kirtland AFB. Most of the small, scattered wetlands on Kirtland AFB are in good condition and occur in conjunction with other plant communities (KAFB 2012).

Wildlife Species and Habitat. Wildlife management falls under the jurisdiction of the NMDGF and the USFWS for migratory birds and federally threatened and endangered species. Sensitive and protected species are addressed in this section under "Threatened and Endangered Species." Laws protecting wildlife include the ESA, the Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Protection Act of 1940. Refer to **Appendix B** for additional laws and regulations protecting wildlife and habitat (KAFB 2012).

Coyotes were once found only in western states, but have expanded their range in recent history to much of North America. They are very common in New Mexico and found statewide at moderate to high density levels. The species is often characterized by wildlife biologists as having a unique resilience to change because they have a strong ability to adapt to adverse conditions and persevere. They are highly mobile animals with territories that vary seasonally. Coyote population densities will vary depending on the time of year, food abundance, and habitat. Coyotes are not protected by state or federal regulations and statutes and are considered predatory animals that can be taken at any time. By statute, NMDGF has the responsibility to manage predator damage, including coyote predation, to other wildlife. USDA APHIS WS, under a Joint Powers Agreement and contract assists NMDGF with responding to predatory animal complaints. USDA APHIS WS assist residents, Tribes, or other federal agencies, especially in urban areas, concerned about coyote attacks on their pets and their apparent loss of fear for humans (USDA APHIS WS 2006). To date, approximately three packs consisting of two to five coyotes have been reported to be causing problems in the family housing and urban areas of the installation.

Wildlife species found on Kirtland AFB are representative of the species diversity common to the regional ecosystem (e.g., grassland, juniper woodland, piñon-juniper woodland, and ponderosa pine woodlands) and species common in semi-developed grassland areas. Species can be transient and travel or inhabit several communities, or exist in transitional areas between vegetation communities. Some of these grassland species can also be found in the urban landscaped portions of the installation where the military housing areas are located.

The Proposed Action locations lie within the grassland association of Kirtland AFB. Common birds associated with the grassland association at Kirtland AFB include horned lark (*Eremophila alpestris*), scaled quail (*Callipepia squamata*), mourning dove (*Zenaida macroura*), greater roadrunner (*Geococcyx californianus*), American crow (*Cowus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), Crissal thrasher (*Toxostoma crissale*), lark sparrow (*Chordestes grammacus*), black-throated sparrow (*Amphispiza bilineata*), western meadowlark (*Sturnella neglecta*), brown-headed cowbird (*Molothrus ater*), and house finch (*Carpodacus mexicanus*). The raptors most commonly found in the grassland association include northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), prairie falcon *(F. mexicanus*), and great horned owl (*Bubovirginianus*). The turkey vulture (*Cathartes aura*) is a common scavenger in this habitat type (KAFB 2012).

The grassland association has a mammal community dominated by rodents, rabbits, and hares. These include the desert cottontail (*Sylvilagus audubonii*), Gunnison's prairie dog (*Cynomys gunnisoni*), white-footed deer mouse (*Peromyscus maniculatus*), silky pocket mouse (*Perognathus flavus*), Merriam's kangaroo rat (*Dipodomys merriami*), and the northern grasshopper mouse (*Onychomys leucogaster*). Mammalian predators found in the grassland association include the coyote (*Canis latrans*), badger (*Taxidea taxus*), kit fox (*Vulpes macrotis*), striped skunk (*Mephitis mephitis*), and bobcat *(Lynx rufus*) (KAFB 2012).

Amphibians and reptiles found on the grasslands at Kirtland AFB include the Woodhouse's toad (*Bufo woodhousii*), New Mexico spadefoot (*Spea multiplicata*), whiptail lizards (*Cnemidophorus* spp.), lesser earless lizard (*Holbrookia maculata*), and the western rattlesnake (*Crotalus viridis*). Many of these species have extensive periods of dormancy during dry conditions and rapid breeding cycles when temporary ponds occur after rains (KAFB 2012).

Threatened and Endangered Species. The agencies that have primary responsibility for the conservation of plant and animal species in New Mexico are the USFWS, the NMDGF, and the New Mexico Energy, Minerals and Natural Resources Department. These agencies maintain lists of plant and animal species that have been classified, or are potential candidates for classification, as threatened or endangered in Bernalillo County. Of those species known to occur in the county, one state threatened species (Gray Vireo) and one federal species of concern (Western Burrowing Owl) have the potential to occur on Kirtland AFB.

Gray vireo. The gray vireo (*Vireo vicinior*), a state threatened avian species as listed by the NMDGF, occurs on the installation, but has not been encountered at or near the Proposed Action locations. The USFWS considers the gray vireo a sensitive species. In 2010 and 2011, an installation-wide gray vireo survey was conducted in which 74 territories were mapped. Territories were found on the west side of the Manzanita Mountains throughout the piñon-juniper woodland community between elevations of 6,194 and 7,962 feet (KAFB 2011b).

Western burrowing owl. The western burrowing owl (*Athene cunicularia hypugaea*), a federal species of concern, is a common resident at Kirtland AFB. It is very closely associated with the prairie dog colonies on the installation, as the owls use abandoned prairie dog burrows for nesting during summer months.

Burrowing owls generally occur on the installation from March through October before migrating south, although a few birds might occur on the installation during mild winters. Burrowing owl inventories have been conducted every year since 1994, and in 2005 a migration study was initiated to identify where nesting owls at Kirtland AFB go to winter. Since burrowing owls use abandoned prairie dog burrows for nesting, a Prairie Dog Management Plan was developed for the installation, which takes into account burrowing owl habitat requirements (KAFB 2012).

Critical Habitat. Critical habitats are those areas of land, air, or water that are essential for maintaining or restoring threatened or endangered plant or animal populations. Neither the NMDGF nor the USFWS has designated or identified any critical habitat on Kirtland AFB. Surveys and literature indicate that important habitats on the installation include the wetlands, which are rare in this region, providing water in an otherwise arid environment. Other important habitats on the installation include prairie dog towns, which provide nesting habitat for the burrowing owl, and areas between 5,900 and 6,600 feet containing open juniper woodlands, which are used as nesting habitat by the gray vireo (KAFB 2012).

3.2 Safety

3.2.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety addresses workers' health and safety during project activities as well as public health and safety during and following project activities.

Site safety requires adherence to regulatory requirements imposed for the benefit of employees. It includes implementation of engineering and administrative practices that aim to reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by numerous DOD and military branch specific regulations designed to comply with standards issued by the Occupational Safety and Health Administration (OSHA), USEPA, and state occupational safety and health agencies. These standards specify health and safety requirements, the amount and type of training required for workers, the use of personal protective equipment (PPE), administrative controls, engineering controls, and permissible exposure limits for workplace stressors.

Health and safety hazards can often be identified and reduced or eliminated before an activity begins. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Hazards include transportation, maintenance and repair activities, and the creation of noisy environments or a potential fire hazard. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation process creates unsafe environments due to noise or fire hazards for nearby populations. Noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns.

3.2.2 Existing Conditions

Wildlife Specialist Safety. All personnel performing project activities are responsible for following federal and state of New Mexico safety regulations and are required to conduct project activities in a manner that does not increase risk to workers or the public. New Mexico is one of several states that administer their own occupational safety and health (OSH) program according to the provision of the OSHA of 1970. Its jurisdiction includes all private and public entities such as city, county, and state government employees. Federal employees are excluded as they are covered by OSHA regulations.

New Mexico OSH programs address the health and safety of people at work. OSH regulations cover potential exposure to a wide range of chemical, physical, and biological hazards, and ergonomic stressors. The regulations are designed to control these hazards by eliminating exposure to the hazards via administrative or engineering controls, substitution, or use of PPE. Occupational health and safety is the responsibility of each employer, as applicable. Employer responsibilities are to review potentially hazardous workplace conditions; monitor exposure to workplace chemical (e.g., asbestos, lead, hazardous substances), physical (e.g., noise propagation, falls), and biological (e.g., infectious waste, wildlife, poisonous plants) agents, and ergonomic stressors; recommend and evaluate controls (e.g., prevention, administrative, engineering, PPE) to ensure exposure to personnel is eliminated or adequately controlled; and ensure a medical surveillance program is in place to perform occupational health physicals for those workers subject to the use of respiratory protection, engaged in hazardous waste work, asbestos, lead, or other work requiring medical monitoring.

Military Personnel Safety. Each branch of the military has its own policies and regulations that act to protect its workers, despite their work location. AFI 91-202, *USAF Mishap Prevention Program*, implements Air Force Policy Directive 91-2, *Safety Programs*. It governs the recognition, evaluation, control, and protection of USAF personnel from occupational health and safety hazards. The purpose of the Mishap Prevention Program is to minimize the loss of USAF resources and to protect USAF personnel from occupational deaths, injuries, or illnesses by managing risks.

The health and safety of personnel at Kirtland AFB is adversely affected by the aggressive groups of coyotes, especially in the family housing and urban areas of the installation. Their opportunistic behavior has resulted in their hunting of domestic animals and an overexposure to humans, creating a fearless relationship toward the human presence in the family housing where young children could be viewed as potential prey. Infected coyotes may also spread diseases to domestic animals they encounter.

Public Safety. Kirtland AFB has its own emergency services department. The emergency services department provides Kirtland AFB with fire suppression, crash response, rescue, emergency medical response, hazardous substance protection, and emergency response planning and community health and safety education through the dissemination of public safety information to the installation. A Veterans Affairs hospital and the 377th Medical Group's Outpatient Clinic are the primary military medical facilities at Kirtland AFB (KAFB undated). A number of other hospitals and clinics, which are devoted to the public, are off-installation in the city of Albuquerque. These facilities include the Heart Hospital of New Mexico, University of New Mexico Hospital, and Presbyterian Kaseman Hospital (Google 2011).

3.3 Socioeconomics and Environmental Justice

3.3.1 Definition of the Resource

Socioeconomics. Socioeconomics is the relationship between economics and social elements such as population levels and economic activity. Factors that describe the socioeconomic environment represent a composite of several interrelated and nonrelated attributes. There are several factors that can be used as indicators of economic conditions for a geographic area, such as demographics, median household income, unemployment rates, percentage of families living below the poverty level, employment, and housing data. Data on employment identify gross numbers of employees, employment by industry or trade, and unemployment trends. Data on industrial, commercial, and other sectors of the economy provide baseline information about the economic health of a region.

Environmental Justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, pertains to environmental justice issues and relates to various socioeconomic groups and the disproportionate impacts that could be imposed on them. This EO requires

that federal agencies' actions substantially affecting human health or the environment do not exclude persons, deny persons benefits, or subject persons to discrimination because of their race, color, or national origin. The EO was enacted to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Consideration of environmental justice concerns includes race, ethnicity, and the poverty status of populations in the vicinity of a proposed action.

Children's Environmental Health and Safety Risks. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, states that each federal agency "(a) shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and (b) shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks."

3.3.2 Existing Conditions

Demographics. The population of the Albuquerque Metropolitan Statistical Area (MSA), defined by the U.S. Census Bureau (USCB) as Bernalillo, Sandoval, and Valencia counties, was 887,077 people in the 2010 U.S. Census. This represents a 24.5 percent increase, or a 2.45 percent annual increase, from the 2000 U.S. Census for the Albuquerque MSA population (USCB 2010a).

The state of New Mexico's population totaled 2,059,179 in 2010. The population of Bernalillo County was 662,564 in 2010, representing 32 percent of the total population for the state of New Mexico. Based on 2000 and 2010 U.S. Census data, the population of Bernalillo County grew 19 percent from 2000 to 2010, while during this same time period Sandoval County experienced a 46.3 percent increase in population and Valencia County grew by 15.7 percent. The growth rate of population in the Albuquerque MSA from 2000 to 2010 (24.5 percent) was much greater than the growth rate of the state of New Mexico (13.2 percent) and of the United States (9.7 percent) over the same time period. See **Table 3-1** for 2000 and 2010 population data (USCB 2010a).

Table 3-1. 2000 and 2010 Population

Location	2000	2010	Percentage Change
United States	281,421,906	308,745,538	9.7%
New Mexico	1,819,046	2,059,179	13.2%
Albuquerque MSA	712,738	887,077	24.5%
Bernalillo County	556,678	662,564	19.0%
Sandoval County	89,908	131,561	46.3%
Valencia County	66,152	76,569	15.7%

Source: USCB 2010a

Employment Characteristics. The three largest industries in the Albuquerque MSA in terms of percentage of the workforce employed within the industry are the educational services, health care, and social assistance industry (6 percent); the professional, scientific, management, and administrative and waste management services industry (6 percent); and the retail trade industry (5 percent) (USCB 2011). Unemployment in the Albuquerque MSA from January 2003 to April 2013 ranged from 3.1 to 9.0 percent annually. In April 2013, the unemployment rate dropped to 6.4 percent (BLS 2013).

Kirtland AFB. The number of persons employed on Kirtland AFB is greater than 20,000, making it the single largest employer in the Albuquerque MSA. There are 3,257 active-duty personnel on the installation. Direct payroll expenditures from Kirtland AFB exceed $2 billion annually. When non-payroll expenditures associated with Kirtland AFB are included, total expenditures sum $7.8 billion. Approximately $4.3 billion of the total Kirtland AFB economic impact is local. Employment associated with Kirtland AFB is estimated to represent one of every 14 jobs in the state of New Mexico (KAFB 2013).

Environmental Justice. To provide a baseline measurement for environmental justice, an area around the installation must be established to examine the impacts on minority and low-income populations. For the purpose of this analysis, a 50-mile radius around Kirtland AFB was evaluated to identify minority and low-income populations. This 50-mile radius includes numerous towns, villages, census-designated places, and cities. The largest of these is the city of Albuquerque with a population of 545,852. In the city of Albuquerque, 46.7 percent of the population is Hispanic and 4.6 percent is Native American (see **Table 3-2**) (USCB 2010a).

Table 3-2. Minority and Low-Income Characteristics (2010)

Race and Origin	City of Albuquerque	City of Rio Rancho	South Valley	New Mexico	United States
Total Population	545,852	87,521	40,976	2,059,179	308,745,538
Percent Under 5 Years of Age	7.0	7.2	7.3	7.0	6.5
Percent Over 65 Years of Age	12.1	10.8	12.3	13.2	13.0
Percent White	69.7	76.0	59.5	68.4	72.4
Percent Black or African American	3.3	2.9	1.2	2.1	12.6
Percent American Indian and Alaska Native	4.6	3.2	2.2	9.4	0.9
Percent Asian	2.6	1.9	0.4	1.4	4.8
Percent Native Hawaiian and Other Pacific Islander	0.1	0.2	0.0	0.1	0.2
Percent Other Race	15.0	11.1	32.7	15.0	6.2
Percent Two or More Races	4.6	4.7	4.0	3.7	2.9
Percent Hispanic or Latino	46.7	36.7	80.2	46.3	16.3
Estimated Median Household Income	$46,532	$59,846	$38,772	$43,569	$51,222
Estimated Percent of Families Living Below Poverty	12.2	6.5	16.6	14.0	10.5

Sources: USCB 2010a and USCB 2010b
Note: Hispanic and Latin denote a place of origin.

The city of Rio Rancho is on the northwestern side of Albuquerque and has a population of 87,521 and is the second largest city within 50 miles of Kirtland AFB. The Hispanic population represents 36.7 percent of the total population in Rio Rancho and the Native American population represents 3.2 percent of the total population. The third largest population center within 50 miles of Kirtland AFB is South Valley, situated to the west of Kirtland AFB, containing 40,976 persons. In South Valley, the Hispanic population is 80.2 percent of the total population and the Native American population is 2.2 percent of the

total population. The percentage of individuals under the age of 5 is very similar in the city of Albuquerque, city of Rio Rancho, and South Valley when compared to the state of New Mexico and the United States (USCB 2010a). The average median household income for the Albuquerque MSA is $48,047, which is slightly less than the United States average of $51,222 (USCB 2010b).

The percentage of families living below the poverty level varies greatly throughout the metropolitan area of Albuquerque, with the city of Albuquerque having poverty levels similar to the state of New Mexico and the United States (see **Table 3-2**). South Valley has a higher poverty rate compared to the state of New Mexico and the United States. Rio Rancho has a significantly lower poverty rate than the state of New Mexico and the United States (USCB 2010b).

Children's Environmental Health and Safety Risks. With steady populations of prey seeking food sources in the urban and housing areas of the installation, presence of coyotes in the Kirtland AFB residential areas has increased. Opportunistic behavior of coyotes has resulted in the hunting of pets and an overexposure to humans, creating a fearless relationship toward the human presence in family housing where young children reside. Residents have observed coyotes walking along concrete block walls bordering their yards and in close proximity to residential housing areas. The presence of these coyotes represents an increased health and safety risk, particularly for children residing on the installation who are more susceptible to attack, less able to defend themselves, and could potentially be viewed as a prey item because of their smaller size. Human health and safety concerns include: human attacks from coyotes that result in injuries or death, and disease threats from rabies and plague outbreaks where predators act as carriers. Infected coyotes may also spread diseases to the pets they encounter.

4. Environmental Consequences

This section describes the potential environmental consequences on the affected environment of implementing the Proposed Action and the No Action Alternative. **Sections 4.1** to **4.3** evaluate each alternative for its potential to affect physical, biological, and socioeconomic resources in accordance with 40 CFR 1508.8. Potential impacts for each resource area are described in terms of their significance. Significant impacts are those impacts that would result in substantial changes to the environment (as defined by 40 CFR 1508.27) and should receive the greatest attention in the decision-making process.

4.1 Biological Resources

4.1.1 Evaluation Criteria

The level of impact on biological resources is determined by (1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource, (2) the proportion of the resource that would be affected relative to its occurrence in the region, (3) the sensitivity of the resource to the proposed activities, and (4) the duration of impacts and potential for broader ecological ramifications. Impacts on biological resources are considered significant if species or habitats of concern are adversely affected over relatively large areas, or disturbances cause reductions in population size or distribution of a species of special concern. A habitat perspective is used to provide a framework for analysis of general classes of impacts (i.e., removal of critical habitat, noise, human disturbance). To evaluate impacts, considerations were given to the number of individuals or critical species involved, amount of habitat affected, relationship of the area of potential effect to total available habitat within the region, type of stressors involved, and magnitude of the effects.

As a requirement under the ESA, federal agencies must provide documentation ensuring agency actions do not adversely affect the existence of any threatened or endangered species. The ESA requires that all federal agencies avoid "taking" threatened or endangered species, which includes jeopardizing threatened or endangered species habitat. Section 7 of the ESA establishes a consultation process with the USFWS that ends with USFWS concurrence or a determination of the risk of jeopardy from a federal agency project.

4.1.2 Proposed Action

4.1.2.1 Coyote Control Methods

Vegetation. The proposed IWDM activities could include the use of all-terrain vehicles in the proposed treatment areas (see **Figure 2-1**). Minor, adverse impacts on vegetation would be expected from all-terrain vehicle use; however, their use would be restricted to established roads and trails, thereby reducing any adverse impacts.

Wildlife Species and Habitat. Implementation of the Proposed Action would have minor, adverse impacts to populations of coyotes and wildlife species and their habitats. IWDM activities would be directed toward localized populations or individual coyotes on Kirtland AFB that represent a health and safety threat. The scope of the Proposed Action involves a limited number of coyotes and is not attempting to eradicate populations across the installation or in a large area or region. USDA APHIS WS personnel are highly experienced and trained to select the most appropriate method(s) for taking problem animals with little impact on non-target species. They use specific trap types, lures and placements that are favorable to capture the target animal and minimize potential impact on non-target species. USDA APHIS WS monitors kills and provides data on total take of target species to NMDGF, USFWS, and

others as appropriate. Because of the targeted IWDM control methods that would be implemented in conjunction with the Proposed Action, impacts to coyote populations, other than those individuals presenting a problem on Kirtland AFB, would be minor.

Maintaining viable populations of all native species is a concern of the public and of biologists within wildlife management agencies. To date, approximately three packs consisting of two to five coyotes have been reported to be causing problems in the family housing and urban areas of the installation and are targeted for removal. *A New Approach to Understanding Canid Populations Using an Individual-based Computer Model: Preliminary Results* is a population model developed to assess the impact of removing a set proportion of the coyote population in 1 year and allowing the population to recover. In the model, all coyote populations recovered within 1 year when less than 60 percent of the population was removed. When 60-90 percent of the population was removed, the population recovered within 5 years. It was noted that actual coyote populations would recover quicker than the model indicated, because the model assumed coyote territories were retained even at low densities, that animals would not move out of their territories to mate, and that the animals were not allowed to move in from surrounding areas (Pitt et al. 2001). The USDA APHIS WS EA concluded that IWDM activities have had a low magnitude impact on the coyote population in New Mexico. This conclusion is consistent with the U.S. General Accounting Office's assessment regarding USDA APHIS WS's impacts on coyote populations in the western United States (USDA APHIS WS 2006).

Non-target wildlife species inhabiting the proposed treatment areas might be temporarily displaced due to the presence of USDA APHIS WS personnel and their activities. Certain wildlife species (e.g., Gunnison's prairie dog, desert cottontail) would be expected to temporarily move to adjacent habitats during IWDM activities and return to the area once activities have ceased. An increase in coyote prey populations would be expected to occur in and around treatment areas with the removal of some of the coyote population. Given the limited number of coyotes that would be taken as part of the Proposed Action and the targeted methods by which USDA APHIS WS would implement the program to avoid direct impacts to other wildlife species, impacts on non-target species and populations are expected to be negligible.

Threatened and Endangered Species. No federally or state-listed threatened or endangered species are known to inhabit the proposed treatment areas. Therefore, proposed project activities are expected to have no impact on threatened and endangered species.

4.1.3 No Action Alternative

Under the No Action Alternative, the proposed coyote control methods would not be implemented and existing biological resources conditions would remain the same as discussed in **Section 3.1.2**. No additional impacts on biological resources would be expected from implementation of the No Action Alternative.

4.2 Safety

4.2.1 Evaluation Criteria

If implementation of the Proposed Action were to increase risks associated with the safety of contractors, military personnel, or the local community, or hinder the ability to respond to an emergency, it would represent an adverse impact. An impact would be significant if implementation of the Proposed Action were to substantially increase risks associated with the safety of USDA APHIS WS personnel, contractors, military personnel, or the local community; substantially hinder the ability to respond to an

emergency; or introduce a new health or safety risk for which the installation is not prepared or does not have adequate management and response plans in place.

4.2.2 Proposed Action

Overall, the long-term safety impacts of implementing the Proposed Action would be beneficial. USDA APHIS WS IWDM methods selected to control populations of coyotes and the extensive training of USDA APHIS WS personnel in implementation of these methods would ensure safe execution of the Proposed Action at Kirtland AFB. Ultimately, implementation of the Proposed Action would reduce the risk from aggressive coyote populations to which the installation residents and children are currently exposed.

4.3 Coyote Control Methods

Wildlife Specialist Safety. Implementation of the proposed IWDM activities would not pose a significant potential hazard to the USDA APHIS WS's employee or the public because all USDA APHIS WS methods and materials are consistently used in a manner known to be safe to the user and to the public. Although some of the equipment and methods (i.e., firearm use, snares, and traps) used by USDA APHIS WS have the potential to represent a threat to human health and safety if used improperly, USDA APHIS WS employees implementing the program have extensive training and are certified for the use of the equipment associated with IWDM methods. Per USDA APHIS WS's Directive 2.615, *Wildlife Services (WS) Firearm Use and Safety*, mandatory firearms training is conducted every 2 years. The proper use and safety of IWDM methods is stressed to USDA APHIS WS personnel and many IWDM methods have mandatory compliance requirements associated with their use (USDA APHIS WS 2006).

Military Personnel Safety. Proposed IWDM activities would have short-term, negligible, adverse impacts on military personnel safety during implementation of the Proposed Action. However, implementation of the Proposed Action would result in a long-term, beneficial impact by removing aggressive coyote populations from the housing and urban areas of the installation. Military personnel and their dependents, particularly children, would be less exposed to human health and safety risks posed by aggressive coyotes. Prior to implementation of the Proposed Action, warning signs would be prominently posted stating when and where IWDM activities would be occurring to further reduce safety risks to installation personnel.

Public Safety. Proposed IWDM activities would have short-term, negligible, adverse impacts on public safety during implementation of the Proposed Action. However, implementation of the Proposed Action would result in a long-term, beneficial impact by removing aggressive coyote populations from the housing and urban areas of the installation. Prior to implementation of the Proposed Action, USDA APHIS WS personnel would coordinate with installation personnel to determine where and when IWDM methods would be used, thereby decreasing the likelihood of conflicts with the public. In addition, notification to installation personnel and their families would be posted in the installation's weekly newspaper and warning signs would be prominently posted stating when and where IWDM activities would be occurring.

4.3.1 No Action Alternative

The No Action Alternative would result in the continuation of the existing conditions on health and safety, as discussed in **Section 3.2.2**. Implementation of the No Action Alternative would result in the coyotes continuing to hunt in the housing and urban areas of the installation, thereby increasing risks to human health and safety of those who live and work on the installation. Therefore, adverse impacts on health and safety would be expected to continue from implementation of the No Action Alternative.

4.4 Socioeconomics and Environmental Justice

4.4.1 Evaluation Criteria

Socioeconomics. This section addresses the potential for direct and indirect impacts that the Proposed Action could have on local or regional socioeconomics. Impacts on local or regional socioeconomics are evaluated according to their potential to stimulate the economy through the purchase of goods or services and increase in employment and population. Similarly, impacts are evaluated to determine if overstimulation of the economy (e.g., the construction industry's ability to sufficiently meet the demands of a project) could occur as a result of the Proposed Action.

Environmental Justice and Protection of Children. Ethnicity and poverty data are examined for the Albuquerque metropolitan area (50-mile radius around Kirtland AFB) and compared to the state of New Mexico and the United States to determine if a low-income or minority population could be disproportionately affected by the Proposed Action.

4.4.2 Proposed Action

4.4.2.1 Coyote Control Methods

Demographics. No impacts on demographics would be expected from implementation of the Proposed Action. No new workers would be hired by USDA APHIS WS to conduct proposed IWDM activities on Kirtland AFB.

Employment Characteristics. No impacts on employment characteristics would be expected from implementation of the Proposed Action. No new workers would be hired by USDA APHIS WS to conduct proposed IWDM activities on Kirtland AFB.

Kirtland AFB. No impacts to Kirtland AFB economic characteristics would be expected from implementation of the Proposed Action. No new workers would be hired by USDA APHIS WS to conduct proposed IWDM activities on Kirtland AFB.

Environmental Justice. Proposed IWDM activities would have no impacts on environmental justice. The Albuquerque metropolitan area (50-mile radius around Kirtland AFB) contains elevated minority and low-income populations in comparison to the United States, but similar to the state of New Mexico (see **Section 3.3.2**). All USDA APHIS WS activities are evaluated for their impact on the human environment and compliance with EO 12898 to ensure consideration of environmental justice (USDA APHIS WS 2006). All firearm activities would be conducted to ensure weapon's discharge would be directed away from populated areas both on and off Kirtland AFB.

Children's Environmental Health and Safety Risks. Proposed IWDM activities would have short-term, negligible, adverse impacts on children during implementation of the Proposed Action. However, implementation of the Proposed Action would result in a long-term, beneficial impact by removing aggressive coyote populations from the housing and urban areas of the installation where a high number of children reside. Children may suffer disproportionately from environmental health and safety risks, including their developmental physical and mental status, for many reasons. Because USDA APHIS WS makes it a high priority to identify and assess human health and safety risks, USDA APHIS WS has considered the impacts the Proposed Action might have on children. In accordance with EO 13045, all IWDM activities would be conducted using only legally available and approved methods where it is unlikely that children would be adversely affected (USDA APHIS WS 2006).

4.4.3 No Action Alternative

Under the No Action Alternative, the proposed coyote control methods would not occur. Aggressive coyote populations would continue to hunt in the housing and urban areas of the installation, resulting in the continued potential for adverse impacts to children residing within the housing area.

4.5 Cumulative Impacts

CEQ defines cumulative impacts as the "impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time by various agencies (federal, state, and local) or individuals. Informed decision making is served by consideration of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the reasonably foreseeable future. Reasonably foreseeable future actions consist of activities that have been approved and can be evaluated with respect to their effects.

This section briefly summarizes past, current, and reasonably foreseeable future projects within the same general geographic and time scope as the Proposed Action. The past, current, and reasonably foreseeable projects, identified below, make up the cumulative impact scenario for the Proposed Action. The cumulative impact scenario is then added to the Proposed Action's impacts on the individual resource areas analyzed in **Sections 4.1** through **4.3** to determine the cumulative impacts of the Proposed Action. In accordance with CEQ guidance, the current effects of past actions are considered in aggregate as appropriate for each resource area without delving into the historical details of individual past actions.

4.5.1 Impact Analysis

4.5.1.1 Past Actions

Kirtland AFB has been used for military missions since the 1930s and has continuously been developed as DOD missions, organizations, needs, and strategies have evolved. Development and operation of training ranges have impacted thousands of acres with synergistic and cumulative impacts on soil, wildlife habitats, water quality, and noise. Beneficial effects, too, have resulted from the operation and management of Kirtland AFB including increased employment and income for Bernalillo County, the city of Albuquerque, and its surrounding communities; restoration and enhancement of sensitive resources such as Coyote Springs wetland area; consumptive and non-consumptive recreation opportunities; and increased knowledge of the history and pre-history of the region through numerous cultural resources surveys and studies.

4.5.1.2 Present and Reasonably Foreseeable Actions

Kirtland AFB is a large military installation that is continually evolving. Projects that were examined for potential cumulative impacts are included in **Table 4-1**. These projects include the construction of facilities totaling approximately 769,700 square feet and the demolition of substandard facilities totaling approximately 682,900 square feet, resulting in an increase of approximately 86,800 square feet of upgraded, energy-efficient building space on the installation. Overall, implementation of the Proposed Action in relation to other past, present, and reasonably foreseeable actions at Kirtland AFB, would not result in cumulative impacts to biological resources, safety, and socioeconomics and environmental justice.

Table 4-1. Present and Reasonably Foreseeable Actions at Kirtland AFB

Project Name	Description
Hercules Tanker Recapitalization	The 58th Special Operations Wing proposed to recapitalize existing Special Operations Force (SOF) tanker aircraft and flight simulators and increase the number of their training fleet. Existing HC/MC-130P/N fixed-wing tanker planes and flight simulators are approaching their service life limits and need to be replaced. The SOF training force would increase by four tanker planes and one flight simulator. By fiscal year 2023, SOF personnel would increase by 171 and the average daily student population would increase by 37. As part of this project, six military construction projects are planned for the installation totaling 146,440 square feet.
Manzano Small Arms Range (formerly Heavy Weapons Range)	The 377 ABW proposes to establish and use a small arms range in the southeastern section of Kirtland AFB, approximately 0.25 miles east of the Starfire Optical Range facilities along Mount Washington Road. The proposed range will encompass the existing M60 range. It will include two firing positions and firing lines and will use the existing targets at the M60 range. Firing distance will be approximately 7,300 feet. Firing position two will be used for sniper heavy weapons (0.50 caliber) and will fire in a more southerly direction to the existing target area, approximately 3,800 feet.
Construct New Hot Cargo Pad	The 377 ABW proposes to construct, operate, and maintain a hot cargo pad at Kirtland AFB to ensure reliable support and backup for the existing hot cargo pad (Pad 5). Other components include construction of a new taxiway to the proposed hot cargo pad; replacement of the deteriorating taxiway to Pad 5; addition of new and relocation of existing anti-ram barriers, defensive fighting positions, and personal shelters surrounding the proposed hot cargo pad and Pad 5; addition of new lighting at the proposed hot cargo pad and Pad 5; and removal of existing lighting at Pad 5. The new pad will consist of 18-inch Portland cement concrete and will add additional 6-inch asphalt taxiway to the existing taxiway at Pad 5. The new pad will adjoin the existing Pad 5 to minimize enlargement of the clear zone and impacts on other critical facilities.
Construction and Demolition of Military Support Facilities	Kirtland AFB proposes to demolish and construct several military personnel support facilities in the developed area in the northwestern portion of the installation. The areas include the Visiting Officer Quarters Complex, the Main Enlisted Dormitory Campus, the Noncommissioned Officer Academy, and Dormitory Campus 2. This project would include the demolition of facilities totaling approximately 498,000 square feet and construction of facilities totaling approximately 389,000 square feet, resulting in a decrease of approximately 109,000 square feet of building space on the installation.
Army and Air Force Exchange Service (AAFES) Base Exchange Shopping Center	AAFES is constructing a new 95,421-square-foot Shopping Center on an approximately 2.3-acre developed site between the existing Commissary (Building 20180) and existing Base Exchange (Building 20170) on Pennsylvania Street. The project includes demolition of the 1,540-square-foot existing satellite pharmacy (Building 20167), closure of a portion (approximately 345 feet) of Pennsylvania Street, and construction of approximately 492 feet of new road to connect Texas Street with Pennsylvania Street north of the new Shopping Center. The new Shopping Center includes a new Base Exchange, pharmacy, retail laundry/dry cleaning, a beauty/barber shop, concession kiosks, five food concepts with a food court, and other similar services. This project will result in an increase of 93,881 square feet of building space on the installation.
Construct New Military Working Dog Facility	Kirtland AFB proposes to construct a new Military Working Dog facility. The proposed facility will consist of 14 indoor/outdoor kennels, 4 isolation kennels, storage and staff space, restrooms, food storage room, a covered walkway, and a veterinarian examining room, totaling 8,000 square feet. A parking area with 25 spaces and new access roads will also be constructed as part of the project. Demolition of facilities totaling 2,520 square feet will also be included in this project, resulting in an increase of 5,480 square feet of building space on the installation.

Project Name	Description
498th Nuclear System Wing Facility	Kirtland AFB proposes to construct a 32,400-square-foot facility to house the newly formed 498th Nuclear Systems Wing. This facility will be a two-story, steel-framed structure with reinforced concrete foundation, floors, and reinforced masonry walls. The construction further includes tying into utilities and communications and parking for 120 vehicles. The facility will accommodate approximately 200 personnel. The new facility location is proposed between G and H Avenues west of Wyoming Boulevard directly behind the Nuclear Weapons Center (Building 20325).
Air Force Nuclear Weapons Center Sustainment Center	Kirtland AFB proposes to construct a 15,946-square-foot sustainment center for the Nuclear Weapons Center. This facility will be a two-story, steel-framed structure built as a Sensitive Compartmented Information Facility with reinforced concrete foundation, floors, and reinforced masonry walls. The construction further includes tying into utilities and communications and parking for vehicles. The facility will accommodate approximately 36 personnel. The new facility location is proposed between G and H Avenues west of Wyoming Boulevard directly behind the Nuclear Weapons Center (Building 20325) and south of the proposed 498th Nuclear Systems Wing facility.
Building Demolition at Kirtland AFB	The 377 ABW proposes to demolish 23 buildings (approximately 105,000 square feet) on Kirtland AFB to make space available for future construction and to fulfill its mission as installation host through better site utilization. None of the buildings proposed for demolition are currently occupied or used by installation personnel. General demolition activities will include removing foundations, floor, wall, ceiling, and roofing materials; removing electrical substations providing power to these facilities; and removing, capping, and rerouting sewer, gas, water, and steam lines outside of the work areas. Equipment such as bulldozers, backhoes, front-end loaders, dump trucks, tractor-trailers, and generators will be required to support the proposed demolition activities.
Security Forces Complex	The 377 ABW proposes to construct, operate, and maintain a 42,500 square foot security forces complex at Kirtland AFB to provide adequate space and modern facilities to house all 377 Security Forces Squadron administrative and support functions in a consolidated location. The 377 Security Forces Squadron functions that will be transferred to the new security forces complex include a base operations center with command and control facility, administration and office space, training rooms, auditorium or assembly room, guard mount, hardened armory for weapons and ammunition storage, confinement facilities, law enforcement, logistics warehouse, general storage, vehicle garage with maintenance area, and associated communications functions. One existing building (879 square feet) within the footprint of the security forces complex will be demolished. This project will result in an increase of 41,621 square feet of building space on the installation.
21st Explosive Ordnance Division (EOD) Expansion	The 21st EOD is conducting facility expansion and site improvements for the 21st EOD Weapons of Mass Destruction Company Complex at Kirtland AFB. 21st EOD currently operates from a 90-acre property leased by the Army within Kirtland AFB. The current site has seven structures, six of which are substandard and do not have adequate fire protection. 21st EOD is expanding this site to a total of 280 acres, adding three permanent structures totaling 40,000 square feet, demolishing five of the six substandard structures (75,000 square feet), adding two temporary storage containers, tying in to nearby utilities, constructing water tanks for fire suppression, and constructing several concrete pads for training tasks. This project will result in a decrease of 35,000 square feet of building space on the installation.

4.5.1.3 Biological Resources

The Proposed Action would not result in any ground-disturbing activities; therefore, it would not be expected to significantly impact vegetation or wildlife habitats. Although growth and development can be expected to continue outside of Kirtland AFB and within the surrounding natural areas, significant adverse impacts on these resources would not be expected. IWDM activities are directed toward

localized populations or individual offending animals, depending on the species and magnitude of the problem, and not an attempt to eradicate populations in a large area or region. USDA APHIS WS monitors kills and provides data on total take of target species to NMDGF, USFWS, and others as appropriate. Monitoring the impacts of IWDM activities on the populations of both target and non-target species would continue. All IWDM activities would comply with relevant laws, regulations, policies, orders, and procedures, including the ESA, MBTA, and Federal Insecticide, Fungicide, and Rodenticide Act (USDA APHIS WS 2006). Overall, cumulative impacts of implementation of the Proposed Action and other past, present, and reasonably foreseeable actions at Kirtland AFB (see **Table 4-1**) on the biological resources would be negligible.

4.5.1.4 Safety

Implementation of the Proposed Action would result in a beneficial impact on military and public safety by reducing the population of aggressive coyotes across the installation. USDA APHIS WS would coordinate with installation personnel to determine when and where IWDM methods would be used, thereby decreasing the likelihood of conflicts with the public. Notification to installation personnel and their families would be posted in the installation's weekly newspaper and warning signs would be prominently posted when IWDM activities are being conducted. No cumulative impacts on health and safety would be expected.

4.5.1.5 Socioeconomics, Protection of Children, and Environmental Justice

Implementation of the Proposed Action would result in no impacts on the region's economy during project activities. Long-term, beneficial impacts on residential areas, youth, or minority or low-income families on or off the installation would occur as a result of removing aggressive coyote populations from the housing and urban areas of the installation. These impacts, when combined with the other projects currently proposed or ongoing at Kirtland AFB, would not be considered a significant cumulative impact.

4.5.2 Unavoidable Adverse Impacts

Unavoidable adverse impacts would result from implementation of the Proposed Action. None of these impacts would be significant.

Energy. The use of nonrenewable resources is an avoidable occurrence, although not considered significant. The Proposed Action would require the use of fossil fuels, a nonrenewable resource, during project activities. Energy supplies, although relatively small, would be committed to the Proposed Action.

Biological Resources. Non-target species could be impacted by IWDM activities whether implemented by USDA APHIS WS, other agencies, or the public. Impacts range from direct take from implementing IWDM methods to indirect impacts to other wildlife resulting from the reduction of predators in a given area. Standard operating procedures are incorporated into IWDM activities to reduce impacts where possible. Because these various factors may at times preclude use of certain methods, it is important to maintain the widest possible selection of IWDM methods to most effectively resolve damage problems. However, the IWDM methods used to resolve predator damage must be legal and biologically sound. Where impacts occur, they are insignificant in terms of non-target species populations (USDA APHIS WS 2006).

4.5.3 Compatibility of the Proposed Action with the Objectives of Federal, Regional, and Local Land Use Plans, Policies, and Controls

The Proposed Action would occur entirely within Kirtland AFB. Proposed IWDM activities would not be incompatible with any current land uses on Kirtland AFB. The Proposed Action would not conflict with any applicable off-installation land use ordinances. The Proposed Action would follow all applicable permitting and safety requirements.

4.5.4 Relationship between Short-term Uses and Long-term Productivity

Short-term uses of the biophysical components of the human environment include direct construction-related disturbances and direct impacts associated with an increase in population and activity that occurs over a period of less than 5 years. Long-term uses of the human environment include those impacts occurring over a period of more than 5 years, including permanent resource loss.

Implementation of the Proposed Action would not require short-term resource uses that would result in long-term compromises of productivity. The Proposed Action would not result in intensification of land use at Kirtland AFB and the surrounding area. Implementation of the Proposed Action would not represent a significant loss of open space. Therefore, the Proposed Action would not result in any cumulative impacts on land use or aesthetics.

4.5.5 Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the impacts that the use of these resources will have on future generations. Irreversible impacts primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable timeframe (e.g., energy and minerals). With the exception of the removal of USDA APHIS WS-identified aggressive coyotes in the proposed treatment areas, impacts on wildlife would be negligible. Other than the minor use of fuels for motor vehicles and all-terrain vehicles, no other irreversible or irretrievable commitments of resources are expected.

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5. List of Preparers

Michelle P. Bare
377 MSG/CEIE (Contractor Support)
International Business College
Antelope Valley Community College
Years of Experience: 22

Martha E. Garcia
377 MSG/CEIE
NEPA Program Manager
B.S. in Conservation Biology
Years of Experience: 6

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APPENDIX A

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES
ENVIRONMENTAL ASSESSMENT, FINDING OF NO SIGNIFICANT IMPACT, AND RECORD OF DECISION FOR PREDATOR DAMAGE MANAGEMENT IN NEW MEXICO

ENVIRONMENTAL ASSESSMENT,
FINDING OF NO SIGNIFICANT IMPACT,
AND RECORD OF DECISION

for

PREDATOR DAMAGE MANAGEMENT IN NEW MEXICO

Prepared by:

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES

in cooperation with:

NEW MEXICO DEPARTMENT OF AGRICULTURE

and

NEW MEXICO DEPARTMENT OF GAME AND FISH

JANUARY 2006

Finding of No Significant Impact and Decision
for
Predator Damage Management in New Mexico

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program responds to a variety of requests for assistance from individuals, and private and public organizations and agencies experiencing damage caused by wildlife in New Mexico. The following document is a decision document for an environmental assessment (EA) that described and analyzed WS's involvement in a portion of wildlife damage management (WDM) activities in New Mexico, specifically the management of predators. WS WDM activities are conducted in cooperation with other Federal, state, and local agencies, as well as private organizations and individuals.

APHIS-WS has the Federal statutory authority under the Act of March 2, 1931, as amended, and the Act of December 22, 1987, to cooperate with other Federal agencies and programs, States, local jurisdictions, individuals, public and private agencies, organizations, and institutions while conducting a program of wildlife services involving animal species that are injurious or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and human health, safety and well-being, and conducting wildlife management programs involving mammal and bird species that are reservoirs for zoonotic diseases.

WS cooperates with the New Mexico Department of Agriculture (NMDA), New Mexico Department of Game and Fish (NMDGF), and several Counties in New Mexico in providing assistance with requests for WDM service. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual WDM actions are categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003, 1995). However, with regard to WS's predator damage management (PDM) activities in New Mexico, WS prepared an environmental assessment (EA) according to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et seq.), the regulations of the Council on Environmental Quality (CEQ) for implementing the procedural provisions of NEPA (40 CFR parts 1500-1508), the USDA regulations implementing NEPA (7 CFR part 1b), and APHIS' NEPA Implementing Procedures (7 CFR part 372).

The EA was prepared to facilitate planning, interagency coordination, streamline program management, and to involve the public and obtain their input through comments and feedback. The EA analyzed and evaluated applicable environmental information along with other associated documentation or reference materials cited in it, to assist the agency decision maker in determining whether the proposed action (to continue with the current PDM actions in New Mexico as discussed in the EA) would have any significant impacts on the human environment.

WS previously prepared three EAs covering PDM for the 3 WS District in New Mexico (WS 1997a, b, c) with Records of Decision (RODs) and Findings of No Significant Impact (FONSIs). New FONSIs and RODs were completed in 2001 for the EAs (WS 2001a, b, c). The current EA combines the three EAs into one statewide EA to look at broader level impacts as they have not been found to be significant at the District level.

The EA that is the subject of this Decision included within its scope the following predator species that cause or may cause damage resulting in requests for WS PDM assistance. The species in New Mexico that cause frequent damage to agricultural and natural resources, property, or threaten human health and safety included coyotes (*Canis latrans*), striped skunks

(*Mephitis mephitis)*, bobcats (*Lynx rufus*), cougars[1] (*Felis concolor*), black bears (*Ursus americanus*), feral/free roaming cats (*Felis domesticus*), feral/free roaming dogs (*Canis familiaris*), and raccoons (*Procyon lotor*). Other predators in New Mexico that have historically caused only localized damage annually to occasionally, at least once in the last 10 federal fiscal years (FY95-FY04 - ie., FY04 = Oct. 1, 2003 - Sept. 30, 2004) included the introduced Virginia opossums (*Didelphus virginianus*), gray fox *(Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), kit fox (*V. macrotis*), swift fox (*V. velox*), ringtails (*Bassariscus astutus*), badgers (*Taxidea taxus*), long-tailed weasels (*M. frenata*), feral domestic ferrets (*M. putorius furo*), western spotted skunks (*S. gracilis*), hooded skunks (*Mephitis macroura*), and hog-nosed skunks (*Conepatus mesoleucus*). Finally, a few additional predators were discussed that have not invoked complaints in the last 10 FYs and included eastern spotted skunks (*Spilogale putorius*), martens (*Mustela americana*), minks (*M. vison*), ermine (*M. erminea*), and white-nosed coatis (*Nasua narica*).

The EA documented the purpose and need for PDM in New Mexico. PDM could be initiated to address damage caused by any of the above species, but the majority of PDM in New Mexico is focused on the first 8 species given above. Impacts on these species and other predators from the current WS PDM program were discussed in the EA and served as a baseline to determine impacts of other alternatives to meet the need for action. The EA assessed potential impacts of various alternatives in relation to issues analyzed for responding to predator damage problems.

WS's proposed action is to continue the current PDM program in New Mexico that allows for the use of all legal PDM methods to resolve injurious or nuisance behavior from predators on all lands authorized in the State. NMDGF manages the above species populations with the exception of coyotes, skunks, opossum, feral domestic pets, and T&E species. The species NMDGF manage are classified as game animals or furbearers under New Mexico statutes. Game animals include the black bear and cougar. Furbearers include the mink, weasel, otter, ringtail cat, raccoon, marten, coati, badger, bobcat, red fox, gray fox, kit fox, and swift fox. Coyotes, skunks, and opossum are unprotected in New Mexico, and coyotes and skunks, and their damage are the responsibility of NMDGF and NMDA. In New Mexico, State law permits landowners and resource managers to take predators that are causing damage. By statute, NMDGF has the responsibility to manage predator damage, including coyote predation, to other wildlife. NMDA, has responsibility under New Mexico statutes to manage damage to agricultural and rangeland resources from predatory animals. Feral dogs, feral cats, and feral domestic ferrets are the responsibility of County and municipal Animal Control Offices or the County Sheriff Departments. And lastly, T&E species are managed by the U.S. Fish and Wildlife Service (USFWS), but management of these species can be deferred to NMDGF under agreement.

Under State law, NMDGF must respond to complaints from private landowners or lessees when protected wildlife, including game and furbearers, are causing damage. WS, under a Joint Powers Agreement (JPA) and contract, assists NMDGF with responding to these complaints. WS, under a Memorandums of Understanding (MOU) with NMDA, responds to agricultural and rangeland resource damage from predators. WS also assists public entities, such as USFWS, and Tribes with PDM when requested and when they have the appropriate permits necessary from NMDGF, as required. Coyotes, skunks, and opossum are not protected by NMDGF and are considered predatory animals; their damage to agricultural and rangeland resources are managed by NMDA, and WS under the MOU responds to requests for assistance. Landowners also have the right to protect their resources from unprotected predatory animals without a permit.

[1] NMDGF's regulations refer to mountain lions as cougars and thus this name will be used throughout the document, but are interchangeable.

A major overarching factor in determining how to analyze potential environmental impacts of WS's involvement in PDM in New Mexico is that if, for whatever reason, PDM conducted by WS was discontinued, similar types and levels of management will be continued by State or local governments, or private individuals or entities as required by State laws for predator control for privately owned resources. Thus, these PDM activities will take place without Federal assistance, but would not trigger NEPA. From a practical perspective, this means that the Federal WS program has limited ability to affect the environmental outcome of PDM in New Mexico, except that, based on WS employees' years of professional expertise and experience in dealing with PDM actions, the WS program is likely to have lower risks to and effects on nontarget species and on the human environment in general, including people, than some other programs or alternatives available to State agencies and private landowners. Therefore, WS has a less likely chance of negatively affecting the human environment affected by PDM actions than would non-Federal or private entities. In other words, we believe that our PDM activities have less of an adverse effect on the human environment than would PDM programs that would be likely to occur in the absence of WS PDM assistance. Thus, WS has a limited ability to affect the environmental status quo in New Mexico. Despite this limitation of Federal decision-making in this situation, this EA process is valuable for informing the public and decision-makers of relevant environmental issues and alternatives of PDM to address the various needs for action described in the EA.

Public Involvement

Drafts of the June 2005 predecisional EA were sent to 7 agencies with professional expertise or responsibility for management of wildlife, predator damage, or government-owned/managed land where PDM has been conducted or may be needed, for their review and comments. The comments received from these agencies were considered and, where appropriate, used in preparing the EA. Following interagency review of the draft, a predecisional EA was prepared and released to the public for a 49-day comment period. The EA was sent directly to 29 organizations and individuals on July 13, 2005. "Notices of Availability" (NOA) of the predecisional EA were published in 1 statewide (The Albuquerque Journal) and 2 local (The Santa Fe New Mexican and The Las Cruces Sun News) newspapers in New Mexico. All three newspapers ran the legal notice for 3 consecutive days: Albuquerque Journal (July 16-18, 2005) and Las Cruces Sun News and Santa Fe New Mexican (July 19-21, 2005). In addition, an NOA letter was sent to 34 interested public and private organizations and individuals. As a result of the newspaper notices and letters, 3 additional EAs were sent to individuals who requested them. The deadline for public comment was set at August 31, 2005. Two comment letters were received in response to the EA: 1 from a nonprofit environmental organization and 1 from a private individual.

The issues described in the comment letters for the most part were addressed in the EA. However, two comments indicated topics that warranted additional clarification or discussion. These are further addressed below. In addition, WS's consideration and responses to comments are attached to this Decision as Appendix A.

Issue 1: Area too large to be covered by a single EA.

A comment was received stating that the area covered by the EA (New Mexico) was too large and inappropriate, thus implying that WS needed to analyze site-specific impacts in the New Mexico PDM EA. This had been discussed in previous EAs (WS 1997a, b, c, 2001a, b, c) as was noted in Section 2.3.4 of the EA. Even so, the EA analyzed site-specific impacts associated with PDM in New Mexico where possible and realistic. However, the following discussion provides more detail on site-specific impacts of WS PDM.

Impacts from WS PDM are, for the most part, similar wherever they occur in New Mexico and can be discussed broadly. Therefore, a discussion of site-specific impacts would be unnecessary and redundant for most PDM activities. The EA, which this decision document is addressing, discussed site-specific impacts where impacts would be dissimilar to the statewide level impacts and where data was available to reasonably discuss such impacts (e.g., NMDGF provides harvest data for game animals and furbearers by game management zones and counties, but not exact site-specific areas). This data was used where determined necessary (e.g., data for cougar take was used by game management zone in Section 4.1.1.1 of the EA). The District-wide PDM EAs that were completed for New Mexico discussed impacts at the WS District level, as well as some site-specific levels, and found no significant impacts to the quality of the human environment (WS 1997a, b, c, 2001a, b, c).

WS PDM actions dealing with somewhat unpredictable predators are, in many respects, analogous to agencies or entities with similar damage management missions such as fire and police departments, emergency clean-up organizations, and insurance companies. Fire and police departments and other emergency response agencies cannot predict where the next fire will occur or where the next burglary or assault will happen. It would be both unrealistic and impractical for a fire or police department (or likewise for many PDM situations, a federal response agency like WS) to have to write an environmental analysis document with a 30-day comment period each time an emergency or relatively urgent request for assistance is received and before an action could be taken to address a site-specific problem. Exactly when or where wildlife will create the next conflict with people or their resources is not very predictable. We can evaluate and scrutinize where we have typically done PDM and other WS activities (e.g., disease management) in the past as discussed in sections 1.3 and 3.2.1.1 of the EA and thereby expect that we will probably be requested to do such actions in these general types of locations again in the future such as on farms and ranches with livestock or at airports (e.g., where coyotes have been traversing runways and pose collision risks to aircraft during take-offs and landings). However, we cannot definitively predict exactly which farms, ranches, or airports that have not before requested our services will do so in the future or those properties where WS PDM services will no longer be needed. As evidence of this, data given in Table 1 of the EA reflects the damage occurrences that were recorded in New Mexico and the varied number that occur from year to year, suggesting the inconsistency in predator damage on an annual basis. Additionally, Section 1.1.2 of the EA notes that WS has agreements on properties totaling 32% of the land acreage in New Mexico, yet WS only took target predators on 14% of the lands in New Mexico, or 46% of the land under agreements. Thus, PDM is conducted on only a portion of the existing properties under agreement in each year.

Damage is very likely to occur in new areas each year and new agreements for PDM as requested will likely be added to the agreements database while other agreements where PDM has been completed and not likely to be conducted in the future are cancelled or inactivated. Thus, PDM will be conducted on different properties annually reflecting these changes. Table 1 gives the number of properties under agreement where WDM (the Management Information System (MIS)

does not track PDM projects separately from all wildlife projects) was conducted by WS from FY01 to FY04 (excludes agreements under civil codes[2]). Table 1 also looks at the total number of properties under agreement where PDM was conducted by WS for two consecutive fiscal years and how many of these properties were worked in both fiscal years. The average number of different properties worked in two fiscal years (1,021) compared to the average number of properties with operational WDM in two consecutive years (514) is 50%. Therefore, half of the properties where WS provides WDM in two consecutive years will be the same and the other 50% different. Thus, the data in Table 1 indicate that there is only about a 50% chance that a specific property under agreement to receive WS WDM operational assistance will have operational WS WDM activity conducted on it in any 2 consecutive years. This demonstrates why we cannot predict with any substantive degree of accuracy the site-specific locations where such WDM will be conducted from one year to the next.

Table 1. WS conducts operational wildlife damage management (WDM) on cooperative agreements throughout much of New Mexico as described in Section 1.1.2 of the EA. The number of agreements where WDM projects were conducted changes annually and many of the agreements are not the same from year to year. This Table gives the number of agreements worked during the fiscal year (FY), the total number of same agreements worked in 2 FYs, the number of agreements that had operational WDM conducted on them in both FYs, and the percentage of agreements that were the same between in the 2 FYs.

Properties Where Operational WDM Was Conducted:	FY01	FY02	FY03	FY04	Ave.
- During the FY	813	815	721	767	779
- Added with Previous FY (# properties worked 2 FYs)	-	991	1,011	1,059	1,021
- And Worked in Previous FY (#same prop. in 2 FYs)	-	537	525	478	514
Percentage of the Same Agreements in 2 FYs	-	54%	52%	45%	50%

In light of our many years of experience and the nature of the predator species targeted by WS PDM actions, we know that requests for our assistance and resulting needs for PDM in any given year will occur on some, but probably not all, of the exact same areas where PDM was conducted in the prior year, and that undoubtedly WS will receive PDM requests in new locations next year where PDM was not conducted this year. As such, there is no way for us to be prospectively 100% sure of or to be able to definitively predict all of the exact site-specific locations where WS might receive PDM requests in the future, and thus there is no realistic way to thereby analyze the potential environmental effects of possible PDM actions on those unknown future site-specific locations. That is precisely the fundamental and true point of the analogy we discussed above that, just like emergency response agencies like fire and police departments cannot predict where the next fire will occur or where the next burglary or assault will happen, WS cannot predict when or where the next request for wildlife services will arise. In order to effectively address and appropriately deal with these "unpredictable" factors and aspects, WS has institutionalized a monitoring and "adaptive management" process and developed and uses standard operating procedures (SOPs).

In order to minimize adverse impacts on the public or other aspects of the affected human environment when a response agency goes out to address the next reported incident, the agency

[2] Civil agreement codes are used for projects that are of short duration and where WS Specialists do not anticipate working in the future. Civil agreements cover counties, cities, or other jurisdictional area (i.e. Bernalillo County, Albuquerque) and are used for minor projects such as trapping a skunk under a residence in an urban area or giving information to somebody to resolve their own problem. These codes can be used several times in one year, and therefore, it is unknown how many projects and properties are associated with them. For example, in FY04, 117 damage occurrences from wildlife (44 from predators) were documented under the 46 civil codes used in FY04, but it is unknown how many projects (direct control or technical assistance) were conducted. This would add to the total number of projects conducted during the FY but are not included in Table 1.

establishes SOPs that are designed to avoid or minimize the risk of adverse effects in the types of areas and situations in which they may find themselves responding to a need for their services. Section 3.4 of the EA describes or references numerous SOPs that we have in place to minimize the risk of adverse environmental effects when we provide PDM assistance in any subsequent specific locale following a request. We believe that these SOPs are effective and sufficiently adequate to avoid significant adverse effects on the quality of the human environment that are affected by WS PDM activities.

Additionally, WS has what could be described as a monitoring and "adaptive management" process in place to maximize the probability that conflicts that might arise as a result of changing circumstances will be identified in the future so that we can take further action to avoid significant adverse effects. That process is the annual coordination and review of our PDM operations that occurs through "work planning" described in Section 1.4 of the EA. This annual coordination and review process is performed with land management agencies and the involved State agencies that are responsible for management of the resources that may be directly or indirectly affected by WS PDM activities. The work planning also provides, in the most practical way we know of, the best opportunity for new potential and substantive environmental concerns to be raised based on changing conditions. For example, if a new "special management area" was established by a wildlife or land management agency to protect a particular species that WS could impact with PDM, then, depending on all the respective facts, we might need to avoid or stop conducting PDM in that area, or switch to using other PDM methods that would not have the potential to have a significant adverse affect on that particular species which would have been analyzed and evaluated for that area. By coordinating at least annually with Federal land and State wildlife managers, they are offered every reasonable opportunity to bring any such changes in circumstances to our attention. What this means to the issue of "site-specificity" is that our SOPs in combination with this annual work planning and review process are built-in means for avoiding significant environmental effects at the local site-specific level, or they allow for the identification of significant effects that would then require the preparation of an EIS if the actions causing such significant effects were proposed for continuation or implementation. Given the nature of WS's request-based service-oriented program for managing damage by wildlife and the often urgent need to quickly respond to requests for assistance, this is the most realistic and practical way for us to address site-specific issues and still be able to meet our Federal responsibilities and mission as authorized by Congress.

The inability to predict where PDM requests will arise is why we have described the typical areas where WS conducts most of its PDM activity in section 3.2.1.1 (a description of "planned-control areas" for each WS District). The majority of WS PDM is conducted for the protection of livestock which could virtually be anywhere in the State where livestock are grazed such as private pasture lands, and BLM rangeland and USFS forest grazing allotments. Other typical locations where PDM actions may be needed include specific and uniquely identifiable locations such as airports, and virtually anyplace in urban, suburban, and rural areas where predators such as raccoons, skunks, and coyotes cause damage to property or pets or present a safety or health (e.g., disease transmission) risk to people. The important concept to convey here is that the need for PDM can occur anywhere in New Mexico within the target predator's range where that predator can damage a resource, something of interest or value to people.

The various predator species included in the scope of this EA do not all occur in the same types of habitats or areas. For example, black bears generally prefer forested areas in New Mexico and do not occur in areas of wide open rangeland. Thus, "typical" locations where PDM is conducted for different species tend to be limited to a particular species' habitat. However, the coyote, which is the species that is the subject of the majority of PDM activity by WS in New Mexico,

occurs statewide in virtually all habitat areas, including many urban and suburban environments. Thus, "typical" areas where PDM to resolve coyote damage problems may be needed can be almost at any location or in any type of habitat in the State where WS is requested for assistance.

The primary concern regarding site-specificity is typically the notion that PDM will lead to the extirpation of a target or nontarget species' population over a broad area at the site-specific level. Sections 2.2.1 and 4.1.1.1 in the EA described the predator populations in New Mexico, their relative abundance, and impacts of PDM in New Mexico at the population level. Sections 2.2.2 and 4.1.2.1 in the EA discussed the nontarget species, including T&E species, that are or could be impacted by WS PDM. Section 3.4 described the SOPs that are incorporated into WS PDM activities to minimize impacts to target and nontarget species. Lethal take of target and nontarget species by WS over the last several fiscal years was analyzed in the EA for target and nontarget species that have or potentially could be impacted by WS PDM. The EA found that none of the predator or nontarget species taken in the last several fiscal years have been impacted by PDM at a level greater than a sustainable level. Additionally, the prior EAs (WS 1997a, b, c, 2001a, b, c) concluded that species had not been impacted at more than a sustainable level in the 3 Districts.

Of the species taken in New Mexico during PDM operations, the coyote, cougar, bobcat, gray fox, and T&E or sensitive species are usually of the greatest concern because they are either frequently targeted by WS or sportsmen, or have small populations and the take of a few could be significant in terms of the population. Take and the potential take of T&E (species with small populations) and sensitive species was adequately discussed in the EA in Sections 2.2.2 and 4.1.2.1. WS has had little, if any, impact on these species nor anticipates any increase in the reasonably foreseeable future. Effects on the coyote population are a concern because the coyote is the species most frequently targeted by WS, with take over 10 times greater than any other species. Coyotes are also the most frequently taken furbearer in New Mexico by sportsmen. Cougars, bobcats, and gray fox are a concern because, although they are not as frequently targeted by WS PDM activities as coyotes, they are often sought by sportsmen, have relatively lower estimated populations, and have a lower harvest potential than other predators. The only species discussed at the local level of the four target predators was the cougar which was analyzed at the game management level in Section 4.1.1.1 of the EA. The EA adequately addressed site-specific impacts to their population. However, Appendix B was added and has analyzed coyote, bobcat, and gray fox take at the county level to determine if local impacts were occurring. Information is not available for smaller units, but these predators would be expected to immigrate or repopulate areas even as large as counties relatively quickly if an impact occurred at that level. The highest take of coyotes by WS PDM and cumulatively occurred in Lea County at 16% and 19% of the estimated county population, respectively. Take could increase over threefold in that County before the sustainable harvest level of 70% for coyotes was reached. Additionally, the impact is likely much lower when factoring in recruitment (births onto the population) which was not done because there was no need. The highest take of bobcats by WS and cumulatively occurred in Chaves County at 7% and 10% of the estimated county population, respectively. Take could increase twofold in that County before the sustainable harvest level of 20% for bobcats was reached. The highest take of gray fox by WS occurred in Chaves County at just over 1% of the estimated population and cumulatively in San Juan County at 10% of the estimated county gray fox population. Recent harvest by sportsmen shows an increase in the take of gray fox. In the 2003-04 hunting season 18% and 17% of the estimated population was taken in Grant and Sierra Counties (WS did not take any gray fox in either counties) still below the level of a sustainable harvest of 25% cited in the EA (literature gives sustainable harvest of 25%-50% for gray fox (BISON-M 2005)). Given the above and data presented in Appendix B, no site-specific impacts could be identified for predators in New Mexico considering cumulative impacts from WS PDM take and sportsmen harvest.

Another concern often stated dealing with site-specific impacts is the take of predators on federally managed lands, specifically BLM and USFS grazing allotments. Predators taken on federally owned or administered lands were given in Table 18 of the EA. However, these looked at WS take at the WS District level and only for FY04. Therefore, we decided to analyze take on federal lands at the more site-specific level. Three predators were targeted on federal lands from FY02 to FY04, the coyote, cougar, and bobcat. Since cougars were analyzed in the EA at the game zone level, the smallest unit that NMDGF manages and monitors, and includes WS take, and since cougars have very large territories and a viable population occurs over areas larger than the county federal land level, it was determined that the analysis in the EA was adequate. However, impacts to coyotes and bobcats on federal lands at the county level were analyzed in Appendix C. The highest level of coyote take by WS and cumulatively (we assumed for the purpose of the analysis that sport harvest for the county was evenly distributed throughout because data is not available otherwise) on BLM lands was 10% and 14% of the estimated coyote population in Luna County. The highest level of take on USFS lands by WS PDM and cumulatively, assuming even distribution of sport harvest, occurred in Taos County at 4% and 5%, respectively. This shows that the impacts have been very minor for coyote take and that take could increase several fold before the sustainable harvest level was reached. The highest level of take for bobcats occurred in Chaves County on BLM lands where WS PDM take and cumulative take was 12% and 15% of the estimated bobcat population. Thus, take could increase before the sustainable harvest level was reached. WS did not take bobcats on USFS lands and therefore did not add to cumulative take on these lands. The above discussion provides data that concludes that WS did not have any significant impacts on coyote or bobcat populations on federal lands at the local level.

The EA and this decision document analyzed impacts on the human environment from WS PDM and provided the SOPs that help avoid impacts so that the analysis could reasonably apply to almost any location in the State where WS could be asked to perform PDM. Therefore, any requests for WS to conduct PDM in almost any "new" area (i.e., an area in which we have not conducted PDM before or in recent years and did not anticipate being requested to conduct PDM in the area) would be a normal or "typical" area for PDM activity. We know of no site-specific environmental aspects in such areas that would be significantly adversely affected by WS PDM, given the nature of our program, methods, and SOPs. Thus, virtually all of the locations we have conducted PDM on in the past, and most, if not all, of the locations on which we could reasonably expect to conduct PDM in the future have been adequately evaluated and analyzed in the final EA and herein. Even though locations we might work in the future are not yet identified, the analysis of impacts applies to those areas and supports a conclusion of no significant impacts similar to the conclusions we have made for those areas we have done PDM actions in the past. The EA and this decision document thoroughly analyzed and evaluated the effects for any area resulting from WS PDM actions. If WS indeed encountered or was made aware of a very different situation or location that deviated from those we have typically worked on in the past or expect to possibly work in the future, or if there were quite different or new factors or aspects that WS had not analyzed or evaluated in the EA, then we would not proceed to provide any wildlife services in such areas until those very different locations or new and unique factors or aspects were appropriately evaluated and analyzed and all the appropriate NEPA procedural requirements were correctly met.

We believe the analysis of relevant environmental issues in the EA and herein are reliable and adequate to reasonably conclude there is little risk of significant adverse effects at the site-specific level in any of the areas of New Mexico to any of the target predator and nontarget species taken in PDM. These analyses fully support and justify a reasonable determination that

the environmental effects resulting from our proposed PDM actions in New Mexico are not significant and that there is no reasonable need to prepare an environmental impact statement for these proposed actions even though the analysis area is New Mexico.

Issue 2: How many operational PDM projects are conducted annually?

A commenter expressed concern that the public has no way of knowing how many PDM projects are orchestrated by WS annually. Table 1 in the EA discussed the number of damage occurrences for each predator species in New Mexico. However, damage occurrences do not necessarily equate to the number of projects that are conducted because a PDM project may entail one or several damage occurrences or only the threat of such an occurrence before a problem is resolved. WS conducts technical assistance and operational PDM projects as described in Section 3.2.1.2 of the EA. The WS MIS (Management Information System – a computer database of WS activities which was upgraded to a new system in FY05) collected information on technical assistance projects by species, but did not collect the number of damage projects specifically linked to species for operational projects on a property. The new system put into effect in FY05 will have this information, but the reports generated by the system are in the process of development. Therefore, WS does not know how many operational projects are specifically done to target predators. However, WS does know the number of WDM projects as a whole that are conducted annually (includes predators, birds, rodents, and other species). Table 2 gives the total number of all WDM projects conducted annually in New Mexico by WS (some of these can involve multiple species). About half of the projects conducted by WS in New Mexico are conducted in response to predator damage as predators are a primary focus of the overall WS program in New Mexico. As shown in Table 2 the average number of WDM projects for FY01 to FY04 was 1,678 with about half of that direct assistance (863). Predator damage occurrences (811) were about half of the total projects (1,678), thus probably about half of the projects. It is likely that WS will conduct from 700 to 1,000 PDM projects annually in New Mexico.

Table 2. The number of WDM projects conducted annually in New Mexico by WS.

WS Assistance	FY 01	FY02	FY03	FY04	Ave.
Technical Assistance	839	804	759	860	816
Direct Assistance Projects	883	923	809	835	863
Total WDM Projects	1,722	1,727	1,568	1,695	1,678
Predator Damage Occurrences*	921	795	764	765	811

* From Table 1 of the EA

Major Issues

WS, cooperating agencies, and the public helped identify a variety of issues deemed relevant to the scope of this EA. Many issues were identified and several were adequately addressed in USDA (1997) and prior EAs (WS 1997a, b, c, 2001a, b, c). Other issues were not analyzed in detail with rationale. Finally, some issues that have been brought up were outside the scope of the EA. All of the issues were considered and consolidated into the following 4 primary issues that were considered in detail in the EA:

- Effects on Target Predator Species Populations
- Effects on Nontarget Species Populations, Including T&E Species
- Impacts on Public Safety, Pets, and the Environment
- Effects of PDM, especially Aerial Hunting Activities, on the Use of Public Lands for Recreation

Affected Environment

The proposed action in the EA is to continue WS's current program of PDM throughout New Mexico where predators are found causing or threatening damage to agriculture, property, natural resources, or public health and safety on public, Tribal, and private properties in New Mexico. PDM will only be conducted where the appropriate Agreement for Control or Work Plan is in place allowing PDM methods to be used. As of the end of January 2005, WS had active cooperative agreements in place on approximately 32% of the State's total land area. However, WS conducts PDM activities on only a portion of these properties annually. In FY04, WS took target predators in PDM on properties from about 14% of the land in New Mexico. The current program's goal and responsibility is to provide service when requested within the constraints of available funding and manpower.

Alternatives Analyzed in Detail

Five potential alternatives were developed to address the issues identified above. Five additional alternatives were considered, but not analyzed in detail. A detailed discussion of the anticipated effects of the alternatives on the objectives and issues is described in Chapter 4 of the EA. The following summary provides a brief description of each alternative and its anticipated impacts.

Alternative 1 - Current Program, the "Proposed Alternative"

This is the "No Action" alternative as defined by CEQ for ongoing programs. This alternative would allow the current program to continue as conducted under the existing WS New Mexico District (Albuquerque, Las Cruces, and Roswell) EAs (WS 1997a, b, c, 2001a, b, c). However, a statewide EA would replace the three New Mexico District EAs with one statewide EA. WS would continue to provide PDM statewide within the scope of the analysis in the EA. Consideration of the No Action alternative is required under 40 CFR 1502.14(d), and provides a baseline for comparing the potential effects of all the other alternatives. In this EA, the "No Action" alternative is consistent with CEQ's definition. In the case of the PDM EA for New Mexico, the No Action Alternative was the equivalent of the Proposed Action Alternative and the Current Program. Alternative 1 benefits individual resource owners/managers, while resulting in only low levels of impact on target and nontarget wildlife populations including T&E species, minimal potential to adversely impact ecosystems, and very low risks to or conflicts with the public and public recreation. Current lethal methods available for use are fairly selective for target species and appear to present a balanced approach to the issue of humaneness when all facets of the issue are considered.

Under the current program, WS responds to requests for PDM to protect livestock, other agricultural resources, human health and safety, property, and natural resources including threatened and endangered species in New Mexico. A major component of the current program is the protection of agriculture, especially livestock, from predation. WS has the objective of responding to all requests for assistance with, at a minimum, technical assistance or self-help advice, or, where appropriate and when cooperative or congressional funding is available, direct damage management assistance with professional WS Specialists conducting damage management actions. An IWDM approach would be implemented which allows the use of any legal technique or method, used singly or in combination, to meet the needs of requestors for resolving conflicts with predatory mammals as given. Agricultural producers and others requesting assistance would be provided with information regarding the use of effective nonlethal and lethal techniques as appropriate. In many situations, the implementation of nonlethal

methods such as fences and animal husbandry techniques would be the responsibility of the requestor to implement which means that, in those situations, WS's only function would be to implement methods difficult for the requestor to implement, if determined to be necessary. PDM by WS would be allowed in the State, when requested, on private, Tribal, and public property where a need has been documented, and where an agreement or other similar instrument, as appropriate, has been established. All management actions would comply with applicable Federal, state, and local laws.

Alternative 2 - No Federal WS PDM

This alternative would consist of no Federal involvement in PDM in New Mexico. Neither direct operational PDM nor technical assistance to provide information on nonlethal or lethal PDM techniques would be available from WS. A portion of the formerly Federal PDM responsibility would be borne by the remaining state agency programs, NMDA and NMDGF. Private individuals would likely increase their efforts as allowed by State law which means more PDM would be conducted by persons with less experience and training, and with little oversight or supervision. Risks to the public, nontarget and T&E species, and public lands and associated recreational activities would probably be greater than under Alternative 1, and effectiveness and selectivity would probably be lower. The use of illegal or inappropriate techniques by frustrated resource owners or managers may increase under this alternative and result in an increase in adverse effects.

Alternative 3 - Technical Assistance Only

Under this alternative, WS would not provide any direct control assistance to persons experiencing predator damage problems, but would instead provide advice, recommendations, and limited technical supplies and equipment. Lethal PDM would likely be conducted by persons with little or no experience and training, and with little oversight or supervision. Risks to the public, nontarget and T&E species, and public lands and associated recreational activities would probably be more than Alternative 1, but slightly less than or about the same as Alternative 2. Effectiveness in resolving predator damage problems and selectivity of PDM actions in targeting damage-causing species or individuals would probably be lower than under Alternatives 1, 4, and 5, but somewhat greater than under Alternative 2. The use of illegal or inappropriate techniques by frustrated resource owners or managers may increase under this alternative and result in an increase in adverse effects.

Alternative 4 - Nonlethal Required before Lethal Control

This alternative would not allow the use of lethal methods by WS as described under the proposed action until nonlethal methods had been attempted. Private landowners and state agencies would still have the option of implementing their own lethal control measures. Risks to or conflicts with the public and target species would be about the same as Alternative 1. Risks to nontarget and T&E species would probably be somewhat greater than Alternative 1, but slightly less than or about the same as Alternative 2 or 3. Program effectiveness would probably be lower than Alternative 1. Personnel experienced in PDM often already know when and where practical nonlethal control techniques would work. Therefore, this alternative could result in the use of methods that are known to be ineffective in particular situations. Selectivity of PDM methods under this alternative would likely be less than Alternative 1 if WS's reduced effectiveness led to greater PDM efforts by less experienced and proficient private individuals, but greater than Alternatives 2 and 3. The use of illegal or inappropriate methods, and adverse effects associated

with such methods, would probably be similar to or slightly higher than that which would occur under Alternative 1, but less than under Alternative 2.

Alternative 5 - Corrective Control Only When Lethal PDM Methods Are Used

This alternative would require livestock depredation or other resource damage by predators to have already occurred before the initiation of lethal control. Alternative 5 would not allow WS to conduct preventive operational PDM. Therefore, WS would not have any direct impact on public or pet health and safety, or on the environment where preventive damage management would have occurred. Most preventive work in New Mexico by WS is focused on areas of historic loss of livestock to coyotes, and to a minor extent, bobcats. Much of this work is conducted with aerial hunting in concert with PDM on the ground. If WS stops conducting preventive PDM, private PDM actions including aerial hunting, would likely increase in these historic loss areas, and would likely be implemented by individuals with less experience than WS personnel potentially resulting in greater impacts on nontarget species and/or on public or pet safety. Cumulative impacts would probably be similar to or less than those that would occur under the No Program Alternative. Impacts and risks from illegal chemical toxicant use under this alternative would probably be similar to or slightly greater than the proposed action, similar to Alternatives 3 and 4, but less than the No Program Alternative.

Alternatives considered but not analyzed in detail were:

- Compensation for Predator Damage Losses
- Bounties
- Eradication and Long Term Population Suppression
- The Humane Society of the United States Alternative
- No PDM Within any Wilderness or Proposed Wilderness

Management Techniques Not Considered for Use in IWDM:

- Mountain Lion Sport Harvest Alternative
- Relocation Rather Than Killing Problem Wildlife
- Immunocontraceptives or Sterilization Should Be Used Instead of Lethal PDM
- Lithium Chloride as an Aversive Agent

Comments regarding the Alternative Selection

The following comments were received regarding the selection of the alternatives:

Both commenters on the EA stated their preferred Alternative: a No Lethal Take Alternative (basically the Technical Assistance Alternative, Alternative 3) and No Federal WS PDM Alternative (Alternative 2).

Finding of No Significant Impact

The analysis in the EA and herein indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of the Proposed Action. I agree with this conclusion and, therefore, find that an Environmental Impact Statement need not be prepared. This determination is based on the following factors:

1. PDM, as conducted by WS in New Mexico, is not regional or national in scope. It is a statewide program and the scope was discussed thoroughly in the EA. Under the proposed Action, WS would continue to assist entities with predator damage as necessary. Even if WS were not involved, PDM will apparently be conducted as required under State law or as allowed by State law by local government or private entities that are not subject to compliance with NEPA.

2. The proposed action would pose minimal risk to public health and safety. No injuries to any member of the public are known to have resulted from WS PDM activities in New Mexico. In addition, a risk assessment of PDM methods used by WS have been analyzed in USDA (1997) and found to pose only minimal risks to the public, pets and nontarget wildlife species. This issue was addressed in the EA and the Proposed Action was found to present the least potential for impacts.

3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected by WS PDM in New Mexico. As discussed in the EA, WS under the Proposed Action Alternative could conduct PDM in wilderness or other special management areas if and when needed but PDM is expected to be needed in relatively few such areas in any one year and would not conflict with the goals or requirements for management of such areas. Annual coordination with land and wildlife management agencies would afford adequate opportunity for changes in circumstances requiring changes in PDM to avoid conflicts, should any be identified.

4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to predator control, this action is not highly controversial in terms of size, nature, or effect. Predator and nontarget species populations will not be significantly affected by PDM under the Proposed Action, but effects on such populations may be more uncertain under the other Alternatives depending on the efforts of other individuals to conduct PDM and the potential for illegal use of toxicants.

5. Based on the analysis documented in the EA, the effects of the proposed PDM program on the human environment are not highly uncertain and do not involve unique or unknown risks. The other Alternatives could potentially involve unique and unknown risks by non-professionals implementing PDM and frustrated property owners that have been ineffective with PDM methods potentially resorting to use of illegal methods.

6. The proposed action would not establish a precedent for any future action with significant effects. The nature of predator damage management is such that it can be curtailed at any time without automatically leading to other Federal actions that may have significant environmental effects.

7. No significant cumulative effects on the quality of the human environment were identified through the EA.

8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.

9. An evaluation of the proposed action and its effects on T&E species determined that no significant adverse effects would occur to such species. This is supported by the 1992 Biological

Opinion (USDA 1997) and a subsequent Biological Assessment (WS 2003) with a letter of concurrence from USFWS (2003).

10. The proposed action would be in compliance with all Federal, State, and local laws imposed for the protection of the environment.

11. There are no irreversible or irretrievable resource commitments identified by this assessment, except for a minor consumption of fossil fuels and other materials for routine operations.

Decision

I have carefully reviewed the EA and the input resulting from the public involvement process. I believe the issues and objectives identified in the EA would be best addressed through implementation of Alternative 1 (the proposed action to continue the current program). Alternative 1 is therefore selected because it offers, within current program funding constraints, the greatest chance at maximizing effectiveness and benefits to resource owners and managers and other individuals affected by predator damage while minimizing risk to or conflicts with the public, and while also minimizing risks and impacts to target and nontarget species populations including T&E species and to other aspects of the human environment. WS in New Mexico will continue to use an Integrated WDM approach in conducting PDM activities in compliance with all of the applicable standard operating procedures listed in Chapter 3 of the EA.

For additional information regarding this decision, please contact Alan May, USDA-APHIS-WS, 8441 Washington NE, Albuquerque, NM 87113 (505) 346-2640.

Jeffrey S. Green, Regional Director
APHIS-WS Western Region

Date 1/30/06

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APPENDIX A

COMMENTS RECEIVED FOR NEW MEXICO 2005 PREDATOR DAMAGE MANAGEMENT ENVIRONMENTAL ASSESSMENT

1. Carson Forest Watch - Joanie Berde, Volunteer Coordinator, and on behalf of Forest Guardians
2. Rebecca Perry-Piper

Letter: Page	Comment	Response
Comments Associated with the Need for Action (Chapter 1) - none		
Comments Associated with the Issues (Chapter 2)		
2: 1	A cost-benefit analysis should be required under NEPA, erroneous not to do so.	Issue – Cost-Benefit Analysis - Specific information to quantify benefits in terms of the value of losses avoided by conducting PDM in New Mexico are not available and difficult to quantify. Cost-benefit is considered in the decision making process when conducting PDM at the site-specific level and is discussed in Section 2.2.6 of the EA. As discussed, CEQ does not require a cost-benefit analysis. In general, benefits can be expected to exceed costs by a considerable degree.
2: 2	Area too large to be covered by an EA.	Issue - site-specificity - this is addressed in the EA and in greater detail in USDA (1997), plus we provide further clarification of our treatment of this issue in the Decision document.
2: 2	Public does not know how many PDM projects are orchestrated by WS.	The MIS (in EA) does not track this data. However, WDM projects (which include all WS projects, but the majority are related to predators) are tracked. This will be considered further in the Decision document.
Comments Associated with the Alternatives (Chapter 3) - none		
Comments Associated with Analysis of Impacts (Chapter 4)		
1 : 1-2	Need more analysis on lynx because current program violation of the Endangered Species Act. WS should not conduct PDM in counties where the lynx and marten are found.	Environmental Consequences - Nontarget Species Impacts - This issue was addressed adequately in Sections 2.1.2.2 (list T&E species and species of concern in Colorado and basic life history information) and 4.1.2.1 (gives impacts to T&E species). These sections discussed information on T&E species populations and analyzed impacts of PDM. Standard operating procedures to avoid taking nontargets, including species of concern & T&E species in PDM were addressed in Section 3.4. We believe that the EA adequately discussed concerns for these species and that WS has not taken either under current SOPs so not added to any cumulative impact.
Comments Associated with the EA's Compliance with NEPA Implementing Regulations		
1: 1 2: 1-2	An EIS would be more appropriate rather than an EA because program highly controversial and uncertain.	NEPA Implementation - EIS vs EA Regulations. An EA is written to determine if an agency action will have significant or uncertain impacts on the human environment. If the EA's Decision concludes that the selected alternative to address the need for action would have significant impacts to the human environment then an EIS would be written as required under NEPA. If the conclusion is a finding of no significant impact to the quality of the human environment, then an EIS would not be written. This was discussed adequately in Section 2.3.1 of the EA.
2: 2	WS must abide by environmental laws (e.g., ESA) and by other agency regulations (e.g., EPA).	Environmental Compliance - WS abides by all applicable environmental laws and regulations, EPA labels to conduct PDM in New Mexico. These are discussed where applicable in the EA.
2:2	APHIS has no formal appeals process.	NEPA Implementation – APHIS NEPA implementing guidelines were established according to CEQ guidelines and with public involvement.

2:3	WS should not be responsible for conducting NEPA on federal lands.	NEPA Implementation - NEPA implementing regulations clearly define the lead agency for NEPA as the agency that will take the action. In this case, WS is the agency that is taking the action on federal lands, and thus the lead agency for the action. WS has MOUs with the primary land managing agencies (BLM and USFS) that outline NEPA responsibilities for each agency. WS clearly is responsible for NEPA covering PDM on federal lands.

Literature Cited

U.S. Department of Agriculture (USDA). 1997. Animal Damage Control Program Final Environmental Impact Statement. (*Revision*) USDA-APHIS-WS, Operational Support Staff, 6505 Belcrest Rd., Room 820 Federal Bldg, Hyattsville, MD 20782. 314 pp + App.

APPENDIX B

IMPACTS OF WS PDM ACTIVITIES ON COYOTE, BOBCAT, AND GRAY FOX POPULATIONS IN NEW MEXICO COUNTIES

County cumulative impacts to coyotes, bobcats, and gray fox in New Mexico from WS PDM take combined with NMDGF harvest data are considered in Tables 1, 2, and 3. WS collects information on coyote, bobcat, and gray fox take in the Management Information System (MIS) as described in the EA. NMDGF annually conducts a furbearer harvest survey by mail/internet (bobcats must be tagged and thus a more accurate count of their take is available). NMDGF typically gets only a small number of respondents at (i.e., for the 2003-04 season only a 25% response rate from the hunters/trappers). Thus, although information is available for each species of furbearer taken in different counties, the data is not as reliable as would be hoped. However, for the purposes of determining site-specific impacts, it is the best available data. The cumulative impact is conducted on a 3 year average. For WS the average comes from FY02 to FY04 (these are the actual numbers taken). The average for hunter harvest comes from the 2001-02 hunting season to the 2003-04 hunting season (hunting seasons basically correspond with the federal fiscal year). Since harvest estimates at the county-level can be unreliable and have unrealistic numbers, three years are averaged. This added to WS PDM take provides an average cumulative impact to the coyote, bobcat, and gray fox populations.

Table 1 shows WS and cumulative impacts to coyotes in each county and statewide. Table 2 provides WS PDM and cumulative impacts to the bobcat at the county and statewide level. Table 3 provides WS PDM and cumulative impacts to the gray fox population at the county and statewide level. Take for all three species has not risen to a level of significance in any county or statewide.

Table 1. Coyote take by WS PDM and from sport harvest for FY02 to FY04 and the impact this has had on the coyote population by WS and cumulatively at the county and statewide level.

County	Size (mi²) and Est. Coyote Population*	WS PDM Coyote Take					Coyote Harvest (Season)				Ave. Cumulative Take	
		FY02	FY03	FY04	Ave. WS Take	% Est. Population	01-02	02-03	03-04	Ave. Harvest	FY02 - FY04	% Est. Population
Bernalillo	1,166	9	10	1	7	1%	11	0	0	4	10	1%
Catron	6,928	47	0	115	54	1%	110	178	20	103	157	2%
Chaves	6,071	373	432	276	360	6%	105	29	90	75	435	7%
Cibola	4,539	99	73	28	67	1%	56	10	45	37	104	2%
Colfax	3,757	30	129	192	117	3%	77	64	91	77	194	5%
Curry	1,406	13	29	81	41	3%	11	27	51	30	71	5%
De Baca	2,325	289	187	232	236	10%	0	0	64	21	257	11%
Dona Ana	3,807	183	214	226	208	5%	94	140	202	145	353	9%
Eddy	4,182	288	216	151	218	5%	141	91	219	150	369	9%
Grant	3,966	236	334	305	292	7%	70	61	210	114	405	10%
Guadalupe	3,030	300	218	311	276	9%	0	48	56	35	311	10%
Harding	2,125	269	292	190	250	12%	0	0	71	24	274	13%
Hidalgo	3,446	263	218	189	223	6%	121	54	45	73	297	9%
Lea	4,393	719	614	712	682	16%	77	226	194	166	847	19%
Lincoln	4,831	331	257	368	319	7%	47	38	61	49	367	8%
Los Alamos	109	0	0	0	0	0%	0	12	5	6	6	5%
Luna	2,965	498	278	439	405	14%	143	127	105	125	530	18%
McKinley	5,449	8	4	3	5	0%	9	48	93	50	55	1%
Mora	1,931	50	17	3	23	1%	0	0	5	2	25	1%
Otero	6,626	182	133	164	160	2%	141	60	181	127	287	4%
Quay	2,875	418	391	356	388	14%	82	33	37	51	439	15%
Rio Arriba	5,858	112	121	107	113	2%	66	128	81	92	205	3%
Roosevelt	2,448	186	117	206	170	7%	0	11	0	4	173	7%
Sandoval	3,709	0	0	2	1	0%	83	68	94	82	82	2%
San Juan	5,514	0	0	0	0	0%	365	273	396	345	345	6%
San Miguel	4,717	198	251	6	152	3%	9	51	16	25	177	4%
Santa Fe	1,909	0	0	0	0	0%	35	161	87	94	94	5%
Sierra	4,180	72	56	46	58	1%	98	142	123	121	179	4%
Socorro	6,646	285	217	162	221	3%	77	122	297	165	387	6%
Taos	2,203	86	18	69	58	3%	15	16	25	19	76	3%
Torrance	3,345	271	315	252	279	8%	53	53	154	87	366	11%
Union	3,830	252	233	176	220	6%	32	108	74	71	292	8%
Valencia	1,068	54	16	20	30	3%	59	42	82	61	91	9%
Unknown	2	-	12	-	4	-	10	2	157	56	60	-
Total	121,356	6,121	5,402	5,388	5,637	5%	2,197	2,423	3,431	2,684	8,321	7%

* Coyotes were estimated using a density of 1/mi² and found statewide, thus land area and coyote population would be the same.

Table 2. Bobcat take by WS PDM and from sport harvest for FY02 to FY04 and the impact this has had on the bobcat population by WS and cumulatively at the county and statewide level.

County	Size (mi^2)	Est. Bobcat Population*	WS Bobcat Take					Bobcat Harvest (Season)				Ave. Cumulative Take	
			FY02	FY03	FY04	Ave. WS Take	% Est. Population	01-02	02-03	03-04	Ave Harvest	FY02 - FY04	% Est. Population
Bernalillo	1,166	226	-	-	-	0	0%	2	-	-	1	1	0%
Catron	6,928	1,341	-	-	-	0	0%	19	37	93	50	50	4%
Chaves	6,071	1,175	95	80	72	82	7%	24	3	77	35	117	10%
Cibola	4,539	878	-	-	-	0	0%	4	-	25	10	10	1%
Colfax	3,757	727	-	-	-	0	0%	2	-	30	11	11	1%
Curry	1,406	272	-	-	-	0	0%	1	-	-	0	0	0%
De Baca	2,325	450	-	4	-	1	0%	-	-	2	1	2	0%
Dona Ana	3,807	737	-	-	5	2	0%	4	4	22	10	12	2%
Eddy	4,182	809	3	5	2	3	0%	6	10	50	22	25	3%
Grant	3,966	767	-	-	-	0	0%	6	11	67	28	28	4%
Guadalupe	3,030	586	-	7	1	3	0%	-	4	3	2	5	1%
Harding	2,125	411	-	-	-	0	0%	-	2	8	3	3	1%
Hidalgo	3,446	667	-	-	-	0	0%	6	1	9	5	5	1%
Lea	4,393	850	-	-	-	0	0%	-	6	1	2	2	0%
Lincoln	4,831	935	45	27	34	35	4%	33	40	75	49	85	9%
Los Alamos	109	21	-	-	-	0	0%	-	-	5	2	2	8%
Luna	2,965	574	-	-	-	0	0%	4	5	5	5	5	1%
McKinley	5,449	1,054	-	-	-	0	0%	7	26	19	17	17	2%
Mora	1,931	374	-	-	-	0	0%	-	-	1	0	0	0%
Otero	6,626	1,282	6	5	1	4	0%	9	28	25	21	25	2%
Quay	2,875	556	-	-	-	0	0%	2	1	4	2	2	0%
Rio Arriba	5,858	1,134	-	-	-	0	0%	5	22	39	22	22	2%
Roosevelt	2,448	474	-	-	-	0	0%	-	1	-	0	0	0%
Sandoval	3,709	718	-	-	-	0	0%	1	13	25	13	13	2%
San Juan	5,514	1,067	-	-	-	0	0%	109	73	96	93	93	9%
San Miguel	4,717	913	-	-	-	0	0%	2	1	3	2	2	0%
Santa Fe	1,909	369	-	-	-	0	0%	-	13	5	6	6	2%
Sierra	4,180	809	-	-	-	0	0%	5	5	31	14	14	2%
Socorro	6,646	1,286	-	-	-	0	0%	14	36	50	33	33	3%
Taos	2,203	426	-	-	-	0	0%	2	2	4	3	3	1%
Torrance	3,345	647	14	8	4	9	1%	4	3	57	21	30	5%
Union	3,830	741	-	-	-	0	0%	-	24	7	10	10	1%
Valencia	1,068	207	-	-	-	0	0%	-	-	8	3	3	1%
Unknown	2	0	5	-	3	3	-	-	1	11	4	7	-
Total	121,356	23,482	168	136	122	142	1%	271	372	857	500	642	3%

* Bobcats were estimated using a density of 0.5/mi^2 with 39% of the state considered to have suitable habitat for them.

Table 3. Gray fox take by WS PDM and from sport harvest for FY02 to FY04 and the impact this has had on the gray fox population by WS and cumulatively at the county and statewide level.

County	Size (mi^2)	Est. Gray Fox Population *	WS Gray Fox Target and Nontarget Take					Gray Fox Harvest (Hunting Season)				Ave. Cumulative Take	
			FY02	FY03	FY04	Ave. WS Take	% Est. Population	01-02	02-03	03-04	Ave. Harvest	FY02 - FY04	% Est. Population
Bernalillo	1,166	380	-	-	-	0	0%	3	1	4	3	3	1%
Catron	6,928	2,258	-	-	-	0	0%	8	139	100	82	82	4%
Chaves	6,021	1,979	14	62	7	28	1%	73	-	49	41	68	3%
Cibola	4,539	1,479	1	2	-	1	0%	4	-	8	4	5	0%
Colfax	3,757	1,224	-	-	-	0	0%	-	-	32	11	11	1%
Curry	1,406	458	-	-	-	0	0%	-	-	-	0	0	0%
De Baca	2,325	758	-		-	0	0%	-	-	6	2	2	0%
Dona Ana	3,807	1,241	-	1	1	1	0%	4	1	44	16	17	1%
Eddy	4,182	1,363				0	0%	-	29	123	51	51	4%
Grant	3,966	1,293	-	-	-	0	0%	19	53	234	102	102	8%
Guadalupe	3,030	987	-			0	0%	-	-	20	7	7	1%
Harding	2,125	693	-	-	2	1	0%	-	-	19	6	7	1%
Hidalgo	3,446	1,123	-	-	-	0	0%	2	-	21	8	8	1%
Lea	4,393	1,432	-	-	-	0	0%	5	-	5	3	3	0%
Lincoln	4,831	1,574	1	11	14	9	1%	22	128	102	84	93	6%
Los Alamos	109	36	-	-	-	0	0%	-	-	11	4	4	10%
Luna	2,965	966	-	-	-	0	0%	2	1	6	3	3	0%
McKinley	5,449	1,776	-	-	-	0	0%	-	8	6	5	5	0%
Mora	1,931	629	-	-	-	0	0%	-	-	2	1	1	0%
Otero	6,626	2,159	1	1		1	0%	14	14	51	26	27	1%
Quay	2,875	937	-	-	-	0	0%	6	-	17	8	8	1%
Rio Arriba	5,858	1,909	-	-	-	0	0%	21	10	31	21	21	1%
Roosevelt	2,448	798	1	-		0	0%	-	-	-	0	0	0%
Sandoval	3,709	1,209	-	-	-	0	0%	23	23	15	20	20	2%
San Juan	5,514	1,797	-	-	-	0	0%	206	139	211	185	185	10%
San Miguel	4,717	1,537	4	8	-	4	0%	1	11	1	4	8	1%
Santa Fe	1,909	622	-	-	-	0	0%	4	13	13	10	10	2%
Sierra	4,180	1,362	-	-	-	0	0%	17	19	228	88	88	6%
Socorro	6,646	2,166	-	-	-	0	0%	14	23	127	55	55	3%
Taos	2,203	718	-	-	-	0	0%	-	6	-	2	2	0%
Torrance	3,345	1,090		3	5	3	0%	26	1	26	18	20	2%
Union	3,830	1,248	-	-	-	0	0%	-	61	-	20	20	2%
Valencia	1,068	348	2	1	2	2	0%	14	8	26	16	18	5%
Unknown	2	1	2	2	-	1	-	-	2	40	14	15	-
Total	121,356	39,550	26	91	31	49	0%	488	690	1,578	919	968	2%

* Gray fox were estimated using a density of 1.0/mi^2 with 33% of the state considered to have suitable habitat for them.

APPENDIX C

IMPACTS OF WS PDM ACTIVITIES ON COYOTE AND BOBCAT POPULATIONS IN NEW MEXICO COUNTIES ON FEDERAL LANDS

WS PDM and cumulative (WS PDM take combined with NMDGF sportsmen harvest data) impacts to coyotes and bobcats on federal lands (BLM and USFS grazing allotments) in New Mexico counties are considered in Tables 1 and 2. WS collects information on coyotes and bobcats in the Management Information System (MIS) as described in the EA. NMDGF annually conducts a furbearer harvest survey by mail/internet (bobcats must be tagged and thus a more accurate count of their take is available). NMDGF provides harvest in each county, but does not separate this by land class. Therefore we had to use a percentage of the harvest (the same percentage as the federal land in a county) for the cumulative impacts analysis and had to assume that harvest in a county was evenly distributed. NMDGF typically gets only a small number of respondents at (i.e., for the 2003-04 season only a 25% response rate from the hunters/trappers). Thus, although information is available for each species of furbearer taken in different counties, the data is not as reliable as would be hoped. However, for the purposes of determining site-specific impacts on federal lands , it is the best available data. The cumulative impact is conducted on a 3 year average. For WS the average comes from FY02 to FY04 (these are the actual numbers taken). The average for hunter harvest comes from the 2001-02 hunting season to the 2003-04 hunting season (hunting seasons basically correspond with the federal fiscal year). Since harvest estimates at the county-level can be unreliable and have unrealistic numbers, three years are averaged. This added to WS PDM take provides an average cumulative impact to the coyote and bobcat populations.

Table 1 shows WS and cumulative impacts to coyotes in each county and statewide for BLM and USFS lands. Table 2 provides WS PDM and cumulative impacts to the bobcat at the county and statewide level for BLM lands; USFS lands are shown, but WS did not take any on USFS lands from FY02 to FY04 and thus had no impact on them. Take for these two species was not at a level of significance in any county or statewide on either BLM or USFS lands.

Table 1. Coyote take by WS PDM and from sport harvest for FY02 to FY04 and the impact this has had on the coyote population by WS and cumulatively at the county and statewide level on BLM and USFS lands.

County	County Size (mi^2)	Ave. Coyote Harvest 02-04	BLM Coyote Take							USFS Coyote Take						
			BLM Area (mi^2)	FY02	FY03	FY04	Ave. WS Take	% Est. Pop.	Cumul. % Est. Pop.*	USFS Area (mi^2)	FY02	FY03	FY04	Ave. WS Take	% Est. Pop.	Cumul. % Est. Pop.*
Bernalillo	1,166	4	27	-	-	-	0	0%	0%	120	-	-	-	0	0%	0%
Catron	6,928	103	909	-	-	4	1	0%	2%	3,464	-	-	53	18	1%	2%
Chaves	6,071	75	1,869	121	177	110	136	7%	9%	63	-	-	-	0	0%	1%
Cibola	4,539	37	401	7	-	-	2	1%	1%	572	-	-	-	0	0%	1%
Colfax	3,757	77	0	-	-	-	-	-	2%	16	-	-	-	0	0%	2%
Curry	1,406	30	1	-	-	-	0	0%	2%	0	-	-	-	-	-	-
De Baca	2,325	21	127	-	-	-	0	0%	1%	0	-	-	-	-	-	-
Dona Ana	3,807	145	1,799	147	92	152	131	7%	11%	0	-	-	-	-	-	-
Eddy	4,182	150	2,219	178	151	138	156	7%	11%	211	-	-	-	0	0%	4%
Grant	3,966	114	603	-	6	12	6	1%	4%	1,382	-	-	-	0	0%	3%
Guadalupe	3,030	35	184	-	-	-	0	0%	1%	0	-	-	-	-	-	-
Harding	2,125	24	0	-	-	-	-	-	-	110	-	-	-	0	0%	1%
Hidalgo	3,446	73	1,259	54	83	31	56	4%	7%	121	-	-	-	0	0%	2%
Lea	4,393	166	730	10	79	50	46	6%	10%	0	-	-	-	-	-	-
Lincoln	4,831	49	880	12	13	23	16	2%	3%	626	-	-	-	0	0%	1%
Los Alamos	109	6	0	-	-	-	-	-	-	0	-	-	-	-	-	-
Luna	2,965	125	1,224	159	98	112	123	10%	14%	0	-	-	-	-	-	-
McKinley	5,449	50	550	-	-	-	0	0%	1%	279	-	-	-	0	0%	1%
Mora	1,931	2	12	-	-	-	0	0%	0%	155	-	-	-	0	0%	0%
Otero	6,626	127	1,471	116	54	41	70	5%	7%	850	1	-	-	0	0%	2%
Quay	2,875	51	12	-	-	-	0	0%	2%	0	-	-	-	-	-	-
Rio Arriba	5,858	92	868	-	-	-	0	0%	2%	2,167	9	10	5	8	0%	2%
Roosevelt	2,448	4	26	-	-	-	0	0%	0%	0	-	-	-	-	-	-
Sandoval	3,709	82	920	-	-	-	0	0%	2%	580	-	-	-	0	0%	2%
San Juan	5,514	345	1,577	-	-	-	0	0%	6%	0	-	-	-	-	-	-
San Miguel	4,717	25	102	-	--	-	0	0%	1%	504	-	-	-	0	0%	1%
Santa Fe	1,909	94	134	-	-	-	0	0%	5%	392	-	-	-	0	0%	5%
Sierra	4,180	121	1,285	34	17	13	21	2%	5%	592	-	-	-	0	0%	3%
Socorro	6,646	165	1,483	109	21	29	53	4%	6%	981	8	2	3	4	0%	3%
Taos	2,203	19	324	-	-	-	0	0%	1%	822	20	17	54	30	4%	5%
Torrance	3,345	87	88	-	-	-	0	0%	3%	236	-	-	-	0	0%	3%
Union	3,830	71	1	-	-	-	0	0%	2%	90	-	-	-	0	0%	2%
Valencia	1,068	61	44	-	-	-	0	0%	6%	24	-	-	-	0	0%	6%
Total	121,356	2,684	21,123	947	791	716	818	4%	6%	14,356	38	29	115	61	0%	3%

* Cumulative impact includes the average coyotes harvested in the county from seasons 2001-02 to 2003-04 multiplied by the percentage of federal land in the county and then combined with WS take. This assumes that coyote take was evenly distributed throughout the counties.

Table 1. Bobcat take by WS PDM and from sport harvest for FY02 to FY04 and the impact this has had on the bobcat population by WS and cumulatively at the county and statewide level on BLM and USFS lands.

County	County Size (mi^2)	BLM Bobcat Take											USFS Bobcat Take	
		BLM Area (mi^2)	Est. Bobcat Pop.	FY02	FY03	FY04	Ave. WS Take	% Est. Pop.	Ave. County Harvest 02 to 04	Est. Harvest on BLM Lands	Cumul. Take	% Est. Pop.	USFS Area (mi^2)	WS Take FY02-FY04**
Bernalillo	1,166	27	5	-	-	-	0	0%	1	0	0	0%	120	0
Catron	6,928	909	176	-	-	-	0	0%	50	7	7	4%	3,464	0
Chaves	6,071	1,369	362	57	47	26	43	12%	35	11	54	15%	63	0
Cibola	4,539	401	78	-	-	-	0	0%	10	1	1	1%	572	0
Colfax	3,757	0	0	-	-	-	-	-	11	0	0	-	16	0
Curry	1,406	1	0	-	-	-	0	0%	0	0	0	0%	0	-
De Baca	2,325	127	25	-	-	-	0	0%	1	0	0	0%	0	-
Dona Ana	3,807	1,799	348	-	-	5	2	0%	10	5	6	2%	0	-
Eddy	4,182	2,219	429	3	5	1	3	1%	22	12	15	3%	211	0
Grant	3,966	603	117	-	-	-	0	0%	28	4	4	4%	1,382	0
Guadalupe	3,030	184	36	-	-	-	0	0%	2	0	0	0%	0	-
Harding	2,125	0	0	-	-	-	-	-	3	0	0	-	110	0
Hidalgo	3,446	1,259	244	-	-	-	0	0%	5	2	2	1%	121	0
Lea	4,393	730	141	-	-	-	0	0%	2	0	0	0%	0	-
Lincoln	4,831	880	170	4	11	3	6	4%	49	9	15	9%	626	0
Los Alamos	109	0	0	-	-	-	-	-	2	0	0	-	0	-
Luna	2,965	1,224	237			-	0	0%	5	2	2	1%	0	-
McKinley	5,449	550	106	-	-	-	0	0%	17	2	2	2%	279	0
Mora	1,931	12	2	-	-	-	0	0%	0	0	0	0%	155	0
Otero	6,626	1,471	285	5	5	-	3	1%	21	5	8	3%	850	0
Quay	2,875	12	2	-	-	-	0	0%	2	0	0	0%	0	-
Rio Arriba	5,858	868	168	-	-	-	0	0%	22	3	3	2%	2,167	0
Roosevelt	2,448	26	5	-	-	-	0	0%	0	0	0	0%	0	-
Sandoval	3,709	920	178	-	-	-	0	0%	13	3	3	2%	580	0
San Juan	5,514	1,577	305	-	-	-	0	0%	93	27	27	9%	0	-
San Miguel	4,717	102	20	-	--	-	0	0%	2	0	0	0%	504	0
Santa Fe	1,909	134	26	-	-	-	0	0%	6	0	0	2%	392	0
Sierra	4,180	1,285	249			-	0	0%	14	4	4	2%	592	0
Socorro	6,646	1,483	287			-	0	0%	33	7	7	3%	981	0
Taos	2,203	324	63	-	-	-	0	0%	3	0	0	1%	822	0
Torrance	3,345	88	17	-	-	-	0	0%	21	1	1	3%	236	0
Union	3,830	1	0	-	-	-	0	0%	10	0	0	1%	90	0
Valencia	1,068	44	8	-	-	-	0	0%	3	0	0	1%	24	0
Total	121,356	21,123	4,087	69	68	35	57	1%	500	87	144	4%	14,356	0

* Cumulative impact includes the average bobcats harvested in the county from seasons 2001-02 to 2003-04 multiplied by the percentage of federal land in the county and then combined with WS take. This assumes that bobcat sportsmen harvest was evenly distributed throughout the counties.
** WS took no bobcats on USFS lands and, thus, had no impact on their populations.

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APPENDIX B

APPLICABLE LAWS, REGULATIONS, POLICIES, AND PLANNING CRITERIA

Appendix B
Applicable Laws, Regulations, Policies, and Planning Criteria

When considering the affected environment, the various physical, biological, economic, and social environmental factors must be considered. In addition to the National Environmental Policy Act (NEPA), there are other environmental laws as well as Executive Orders (EOs) to be considered when preparing environmental analyses. These laws are summarized below.

NOTE: This is not a complete list of all applicable laws, regulations, policies, and planning criteria potentially applicable to documents, however, it does provide a general summary for use as a reference.

General

EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (January 24, 2007 [superseding EO 13123 and EO 13149]) directs federal agencies to conduct their activities under the law in support of their respective missions in an environmentally, economically and fiscally sound, integrated, continuously improving, efficient, and sustainable manner. EO 13423 sets several federal energy and environmental management requirements in areas such as energy efficiency, greenhouse gas reduction, renewable power, building performance, water conservation, alternative fuel/hybrid vehicles, petroleum conservation, alternative fuel, pollution prevention, environmentally sound procurement, and electronics management.

Noise

The Air Installation Compatible Use Zone (AICUZ) Program, (Air Force Instruction [AFI] 32-7063), provides guidance to air bases and local communities in planning land uses compatible with airfield operations. The AICUZ program describes existing aircraft noise and flight safety zones on and near U.S. Air Force (USAF) installations.

Land Use

The term "land use" refers to real property classifications that indicate either natural conditions or the types of human activities occurring on a defined parcel of land. In many cases, land use descriptions are codified in local zoning laws. However, there is no nationally recognized convention or uniform terminology for describing land use categories.

Land use planning in the USAF is guided by *Land Use Planning Bulletin, Base Comprehensive Planning* (HQ USAF/LEEVX, August 1, 1986). This document provides for the use of 12 basic land use types found on a USAF installation. In addition, land use guidelines established by the U.S. Department of Housing and Urban Development (HUD) and based on findings of the Federal Interagency Committee on Noise (FICON) are used to recommend acceptable levels of noise exposure for land use.

Air Quality

The Clean Air Act (CAA) of 1970, and Amendments of 1977 and 1990, recognizes that increases in air pollution result in danger to public health and welfare. To protect and enhance the quality of the Nation's air resources, the CAA authorizes the U.S. Environmental Protection Agency (USEPA) to set six National Ambient Air Quality Standards (NAAQSs) which regulate carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter pollution emissions. The CAA seeks to reduce or eliminate the creation of pollutants at their source, and designates this responsibility to state and local governments. States are directed to utilize financial and technical assistance as well as leadership from the Federal

Government to develop implementation plans to achieve NAAQS. Geographic areas are officially designated by the USEPA as being in attainment or nonattainment to pollutants in relation to their compliance with NAAQS. Geographic regions established for air quality planning purposes are designated as Air Quality Control Regions (AQCRs). Pollutant concentration levels are measured at designated monitoring stations within the AQCR. An area with insufficient monitoring data is designated as unclassifiable. Section 309 of the CAA authorizes USEPA to review and comment on impact statements prepared by other agencies.

An agency should consider what effect an action might have on NAAQS due to short-term increases in air pollution during construction and long-term increases resulting from changes in traffic patterns. For actions in attainment areas, a federal agency could also be subject to USEPA's Prevention of Significant Deterioration (PSD) regulations. These regulations apply to new major stationary sources and modifications to such sources. Although few agency facilities will actually emit pollutants, increases in pollution can result from a change in traffic patterns or volume. Section 118 of the CAA waives federal immunity from complying with the CAA and states all federal agencies will comply with all federal- and state-approved requirements.

The General Conformity Rule requires that any federal action meet the requirements of a State Implementation Plan (SIP) or Federal Implementation Plan. More specifically, CAA conformity is ensured when a federal action does not cause a new violation of the NAAQS; contribute to an increase in the frequency or severity of violations of NAAQS; or delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS.

The General Conformity Rule applies only to actions in nonattainment or maintenance areas and considers both direct and indirect emissions. The rule applies only to federal actions that are considered "regionally significant" or where the total emissions from the action meet or exceed the *de minimis* thresholds presented in 40 CFR 93.153. An action is regionally significant when the total nonattainment pollutant emissions exceed 10 percent of the AQCR's total emissions inventory for that nonattainment pollutant. If a federal action does not meet or exceed the *de minimis* thresholds and is not considered regionally significant, then a full Conformity Determination is not required.

Health and Human Safety

Human health and safety relates to workers' health and safety during demolition or construction of facilities, or applies to work conditions during operations of a facility that could expose workers to conditions that pose a health of safety risk. The federal Occupational Safety and Health Administration (OSHA) issues standards to protect persons from such risks, and the DOD and state and local jurisdictions issue guidance to comply with these OSHA standards. Safety also can refer to safe operations or aircraft or other equipment.

AFI 91-202, *USAF Mishap Prevention Program*, implements AFPD 91-2, *Safety Programs*. It establishes mishap prevention program requirements (including the Bird/Wildlife Aircraft Strike Hazard [BASH] Program), assigns responsibilities for program elements, and contains program management information. This instruction applies to all USAF personnel.

Geological Resources

Recognizing that millions of acres per year of prime farmland are lost to development, Congress passed the Farmland Protection Policy Act to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland (7 CFR Part 658). Prime farmland is described as soils that have a combination of soil and landscape properties that make them highly suitable for cropland, such as high inherent fertility, good water-holding capacity, and deep or thick effective rooting

zones, and are not subject to periodic flooding. Under the Farmland Protection Policy Act, agencies are encouraged to conserve prime or unique farmlands when alternatives are practicable. Some activities that are not subject to the Farmland Protection Policy Act include federal permitting and licensing, projects on land already in urban development or used for water storage, construction for national defense purposes, or construction of new minor secondary structures such as a garage or storage shed.

Water Resources

The Clean Water Act (CWA) of 1977 is an amendment to the federal Water Pollution Control Act of 1972, is administered by USEPA, and sets the basic structure for regulating discharges of pollutants into U.S. waters. The CWA requires USEPA to establish water quality standards for specified contaminants in surface waters and forbids the discharge of pollutants from a point source into navigable waters without a NPDES permit. NPDES permits are issued by USEPA or the appropriate state if it has assumed responsibility. Section 404 of the CWA establishes a federal program to regulate the discharge of dredge and fill material into waters of the United States. Section 404 permits are issued by the U.S. Army Corps of Engineers (USACE). Waters of the United States include interstate and intrastate lakes, rivers, streams, and wetlands that are used for commerce, recreation, industry, sources of fish, and other purposes. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Each agency should consider the impact on water quality from actions such as the discharge of dredge or fill material into U.S. waters from construction, or the discharge of pollutants as a result of facility occupation.

Section 303(d) of the CWA requires states and USEPA to identify waters not meeting state water-quality standards and to develop Total Maximum Daily Loads (TMDLs). A TMDL is the maximum amount of a pollutant that a waterbody can receive and still be in compliance with state water-quality standards. After determining TMDLs for impaired waters, states are required to identify all point and nonpoint sources of pollution in a watershed that are contributing to the impairment and to develop an implementation plan that will allocate reductions to each source to meet the state standards. The TMDL program is currently the Nation's most comprehensive attempt to restore and improve water quality. The TMDL program does not explicitly require the protection of riparian areas. However, implementation of the TMDL plans typically calls for restoration of riparian areas as one of the required management methods for achieving reductions in nonpoint source pollutant loadings.

The USEPA issued a Final Rule for the CWA concerning technology-based Effluent Limitations Guidelines and New Source Performance Standards for the Construction and Development point source category. All NPDES storm water permits issued by the USEPA or states must incorporate requirements established in the Final Rule. As of February 1, 2010, all new construction sites are required to meet the non-numeric effluent limitations and design, install, and maintain effective erosion and sedimentation controls. In addition, construction site owners and operators that disturb 1 or more acres of land are required to use best management practices (BMPs) to ensure that soil disturbed during construction activities does not pollute nearby water bodies. On February 2, 2014, construction site owners and operators that disturb 10 or more acres of land are required to monitor discharged to ensure compliance with effluent limitations as specified by the permitting authority. Construction site owners are encouraged to phase ground-disturbing activities to limit the applicability of the monitoring requirements and the turbidity limitation. The USEPA's limitations are based on its assessment of what specific technologies can reliably achieve. Permittees can select management practices or technologies that are best suited for site-specific conditions.

The Coastal Zone Management Act (CZMA) of 1972 declares a national policy to preserve, protect, and develop, and, where possible, restore or enhance the resources of the Nation's coastal zone. The coastal zone refers to the coastal waters and the adjacent shorelines including islands, transitional and intertidal

areas, salt marshes, wetlands, and beaches, and includes the Great Lakes. The CZMA encourages states to exercise their full authority over the coastal zone, through the development of land and water use programs in cooperation with federal and local governments. States may apply for grants to help develop and implement management programs to achieve wise use of the land and water resources of the coastal zone. Development projects affecting land or water use or natural resources of a coastal zone must ensure the project is, to the maximum extent practicable, consistent with the state's coastal zone management program.

The Safe Drinking Water Act (SDWA) of 1974 establishes a federal program to monitor and increase the safety of all commercially and publicly supplied drinking water. Congress amended the SDWA in 1986, mandating dramatic changes in nationwide safeguards for drinking water and establishing new federal enforcement responsibility on the part of USEPA. The 1986 amendments to the SDWA require USEPA to establish Maximum Contaminant Levels (MCLs), Maximum Contaminant Level Goals (MCLGs), and Best Available Technology (BAT) treatment techniques for organic, inorganic, radioactive, and microbial contaminants; and turbidity. MCLGs are maximum concentrations below which no negative human health effects are known to exist. The 1996 amendments set current federal MCLs, MCLGs, and BATs for organic, inorganic, microbiological, and radiological contaminants in public drinking water supplies.

The Wild and Scenic Rivers Act of 1968 provides for a wild and scenic river system by recognizing the remarkable values of specific rivers of the Nation. These selected rivers and their immediate environment are preserved in a free-flowing condition, without dams or other construction. The policy not only protects the water quality of the selected rivers but also provides for the enjoyment of present and future generations. Any river in a free-flowing condition is eligible for inclusion, and can be authorized as such by an Act of Congress, an act of state legislature, or by the Secretary of the Interior upon the recommendation of the governor of the state(s) through which the river flows.

EO 11988, *Floodplain Management* (May 24, 1977), directs agencies to consider alternatives to avoid adverse effects and incompatible development in floodplains. An agency may locate a facility in a floodplain if the head of the agency finds there is no practicable alternative. If it is found there is no practicable alternative, the agency must minimize potential harm to the floodplain, and circulate a notice explaining why the action is to be located in the floodplain prior to taking action. Finally, new construction in a floodplain must apply accepted floodproofing and flood protection to include elevating structures above the base flood level rather than filling in land.

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (October 5, 2009), directed the USEPA to issue guidance on Section 438 of the Energy Independence and Security Act (EISA). The EISA establishes into law new storm water design requirements for federal construction projects that disturb a footprint of greater than 5,000 square feet of land. Under these requirements, predevelopment site hydrology must be maintained or restored to the maximum extent technically feasible with respect to temperature, rate, volume, and duration of flow. Predevelopment hydrology would be calculated and site design would incorporate storm water retention and reuse technologies to the maximum extent technically feasible. Post-construction analyses will be conducted to evaluate the effectiveness of the as-built storm water reduction features. These regulations are applicable to DOD Unified Facilities Criteria. Additional guidance is provided in the USEPA's *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*.

Biological Resources

The Endangered Species Act (ESA) of 1973 establishes a federal program to conserve, protect, and restore threatened and endangered plants and animals and their habitats. The ESA specifically charges federal agencies with the responsibility of using their authority to conserve threatened and endangered

species. All federal agencies must ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction of critical habitat for these species, unless the agency has been granted an exemption. The Secretary of the Interior, using the best available scientific data, determines which species are officially endangered or threatened, and the U.S. Fish and Wildlife Service (USFWS) maintain the list. A list of federal endangered species can be obtained from the Endangered Species Division, USFWS (505-248-6920). States might also have their own lists of threatened and endangered species which can be obtained by calling the appropriate State Fish and Wildlife office. Some species also have laws specifically for their protection (e.g., Bald Eagle Protection Act).

The Migratory Bird Treaty Act (MBTA) of 1918, as amended, implements treaties and conventions between the United States, Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless otherwise permitted by regulations, the MBTA makes it unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, or deliver; or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product, manufactured or not. The MBTA also makes it unlawful to ship, transport, or carry from one state, territory, or district to another, or through a foreign country, any bird, part, nest, or egg that was captured, killed, taken, shipped, transported, or carried contrary to the laws from where it was obtained; and import from Canada any bird, part, nest, or egg obtained contrary to the laws of the province from which it was obtained. The U.S. Department of the Interior has authority to arrest, with or without a warrant, a person violating the MBTA.

EO 11514, *Protection and Enhancement of Environmental Quality* (March 5, 1970), states that the President, with assistance from the Council on Environmental Quality (CEQ), will lead a national effort to provide leadership in protecting and enhancing the environment for the purpose of sustaining and enriching human life. Federal agencies are directed to meet national environmental goals through their policies, programs, and plans. Agencies should also continually monitor and evaluate their activities to protect and enhance the quality of the environment. Consistent with NEPA, agencies are directed to share information about existing or potential environmental problems with all interested parties, including the public, in order to obtain their views.

EO 11990, *Protection of Wetlands* (May 24, 1977), directs agencies to consider alternatives to avoid adverse effects and incompatible development in wetlands. Federal agencies are to avoid new construction in wetlands, unless the agency finds there is no practicable alternative to construction in the wetland, and the proposed construction incorporates all possible measures to limit harm to the wetland. Agencies should use economic and environmental data, agency mission statements, and any other pertinent information when deciding whether or not to build in wetlands. EO 11990 directs each agency to provide for early public review of plans for construction in wetlands.

EO 13186, *Conservation of Migratory Birds* (January 10, 2001), creates a more comprehensive strategy for the conservation of migratory birds by the Federal Government. EO 13186 provides a specific framework for the Federal Government's compliance with its treaty obligations to Canada, Mexico, Russia, and Japan. EO 13186 provides broad guidelines on conservation responsibilities and requires the development of more detailed guidance in a Memorandum of Understanding (MOU). EO 13186 will be coordinated and implemented by the USFWS. The MOU will outline how federal agencies will promote conservation of migratory birds. EO 13186 requires the support of various conservation planning efforts already in progress; incorporation of bird conservation considerations into agency planning, including NEPA analyses; and reporting annually on the level of take of migratory birds.

Cultural Resources

The American Indian Religious Freedom Act of 1978 and Amendments of 1994 recognize that freedom of religion for all people is an inherent right, and traditional American Indian religions are an indispensable and irreplaceable part of Indian life. It also recognized the lack of federal policy on this issue and made it the policy of the United States to protect and preserve the inherent right of religious freedom for Native Americans. The 1994 Amendments provide clear legal protection for the religious use of peyote cactus as a religious sacrament. Federal agencies are responsible for evaluating their actions and policies to determine if changes should be made to protect and preserve the religious cultural rights and practices of Native Americans. These evaluations must be made in consultation with native traditional religious leaders.

The Archaeological Resource Protection Act (ARPA) of 1979 protects archaeological resources on public and American Indian lands. It provides felony-level penalties for the unauthorized excavation, removal, damage, alteration, or defacement of any archaeological resource, defined as material remains of past human life or activities which are at least 100 years old. Before archaeological resources are excavated or removed from public lands, the federal land manager must issue a permit detailing the time, scope, location, and specific purpose of the proposed work. ARPA also fosters the exchange of information about archaeological resources between governmental agencies, the professional archaeological community, and private individuals. ARPA is implemented by regulations found in 43 CFR Part 7.

The National Historic Preservation Act (NHPA) of 1966 sets forth national policy to identify and preserve properties of state, local, and national significance. The NHPA establishes the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), and the National Register of Historic Places (NRHP). ACHP advises the President, Congress, and federal agencies on historic preservation issues. Section 106 of the NHPA directs federal agencies to take into account effects of their undertakings (actions and authorizations) on properties included in or eligible for the NRHP. Section 110 sets inventory, nomination, protection, and preservation responsibilities for federally owned cultural properties. Section 106 of the act is implemented by regulations of the ACHP, 36 CFR Part 800. Agencies should coordinate studies and documents prepared under Section 106 with NEPA where appropriate. However, NEPA and NHPA are separate statutes and compliance with one does not constitute compliance with the other. For example, actions which qualify for a categorical exclusion under NEPA might still require Section 106 review under NHPA. It is the responsibility of the agency official to identify properties in the area of potential effects, and whether they are included or eligible for inclusion in the NRHP. Section 110 of the NHPA requires federal agencies to identify, evaluate, and nominate historic property under agency control to the NRHP.

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 establishes rights of American Indian tribes to claim ownership of certain "cultural items," defined as Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, held or controlled by federal agencies. Cultural items discovered on federal or tribal lands are, in order of primacy, the property of lineal descendants, if these can be determined, and then the tribe owning the land where the items were discovered or the tribe with the closest cultural affiliation with the items. Discoveries of cultural items on federal or tribal land must be reported to the appropriate American Indian tribe and the federal agency with jurisdiction over the land. If the discovery is made as a result of a land use, activity in the area must stop and the items must be protected pending the outcome of consultation with the affiliated tribe.

EO 11593, *Protection and Enhancement of the Cultural Environment* (May 13, 1971), directs the Federal Government to provide leadership in the preservation, restoration, and maintenance of the historic and cultural environment. Federal agencies are required to locate and evaluate all federal sites under their jurisdiction or control which might qualify for listing on the NRHP. Agencies must allow the ACHP to

comment on the alteration, demolition, sale, or transfer of property which is likely to meet the criteria for listing as determined by the Secretary of the Interior in consultation with the SHPO. Agencies must also initiate procedures to maintain federally owned sites listed on the NRHP.

EO 13007, *Indian Sacred Sites* (May 24, 1996), provides that agencies managing federal lands, to the extent practicable, permitted by law, and not inconsistent with agency functions, shall accommodate American Indian religious practitioners' access to and ceremonial use of American Indian sacred sites, shall avoid adversely affecting the physical integrity of such sites, and shall maintain the confidentiality of such sites. Federal agencies are responsible for informing tribes of proposed actions that could restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites.

EO 13175, *Consultation and Coordination with Indian Tribal Government* (November 6, 2000), was issued to provide for regular and meaningful consultation and collaboration with Native American tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Native American tribes. EO 13175 recognizes the following fundamental principles: Native American tribes exercise inherent sovereignty over their lands and members, the United States government has a unique trust relationship with Native American tribes and deals with them on a government-to-government basis, and Native American tribes have the right to self-government and self-determination.

EO 13287, *Preserve America* (March 3, 2003), orders federal agencies to take a leadership role in protection, enhancement, and contemporary use of historic properties owned by the Federal Government, and promote intergovernmental cooperation and partnerships for preservation and use of historic properties. EO 13287 established new accountability for agencies with respect to inventories and stewardship.

Socioeconomics, Protection of Children, and Environmental Justice

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), directs federal agencies to make achieving environmental justice part of their mission. Agencies must identify and address the adverse human health or environmental effects that its activities have on minority and low-income populations, and develop agencywide environmental justice strategies. The strategy must list "programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations, ensure greater public participation, improve research and data collection relating to the health of and environment of minority populations and low-income populations, and identify differential patterns of consumption of natural resources among minority populations and low-income populations." A copy of the strategy and progress reports must be provided to the Federal Working Group on Environmental Justice. Responsibility for compliance with EO 12898 is with each federal agency.

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* (April 21, 1997), directs federal agencies to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and ensure that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Hazardous Materials and Waste

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 authorizes USEPA to respond to spills and other releases of hazardous substances to the environment, and

authorizes the National Oil and Hazardous Substances Pollution Contingency Plan. CERCLA also provides a federal "Superfund" to respond to emergencies immediately. Although the "Superfund" provides funds for cleanup of sites where potentially responsible parties cannot be identified, USEPA is authorized to recover funds through damages collected from responsible parties. This funding process places the economic burden for cleanup on polluters.

The Pollution Prevention Act (PPA) of 1990 encourages manufacturers to avoid the generation of pollution by modifying equipment and processes; redesigning products, substituting raw materials; and making improvements in management techniques, training, and inventory control. Consistent with pollution prevention principles, EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (January 24, 2007 [revoking EO 13148]) sets a goal for all federal agencies that promotes environmental practices, including acquisition of biobased, environmentally preferable, energy-efficient, water-efficient, and recycled-content products, and use of paper of at least 30 percent post-consumer fiber content. In addition, EO 13423 sets a goal that requires federal agencies to ensure that they reduce the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of, increase diversion of solid waste as appropriate, and maintain cost-effective waste prevention and recycling programs in their facilities. Additionally, in *Federal Register* Volume 58 Number 18 (January 29, 1993), CEQ provides guidance to federal agencies on how to "incorporate pollution prevention principles, techniques, and mechanisms into their planning and decisionmaking processes and to evaluate and report those efforts, as appropriate, in documents pursuant to NEPA."

The Resource Conservation and Recovery Act (RCRA) of 1976 is an amendment to the Solid Waste Disposal Act. RCRA authorizes USEPA to provide for "cradle-to-grave" management of hazardous waste and sets a framework for the management of nonhazardous municipal solid waste. Under RCRA, hazardous waste is controlled from generation to disposal through tracking and permitting systems, and restrictions and controls on the placement of waste on or into the land. Under RCRA, a waste is defined as hazardous if it is ignitable, corrosive, reactive, toxic, or listed by USEPA as being hazardous. With the Hazardous and Solid Waste Amendments (HSWA) of 1984, Congress targeted stricter standards for waste disposal and encouraged pollution prevention by prohibiting the land disposal of particular wastes. The HSWA amendments strengthen control of both hazardous and nonhazardous waste and emphasize the prevention of pollution of groundwater.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 mandates strong clean-up standards and authorizes USEPA to use a variety of incentives to encourage settlements. Title III of SARA authorizes the Emergency Planning and Community Right to Know Act (EPCRA), which requires facility operators with "hazardous substances" or "extremely hazardous substances" to prepare comprehensive emergency plans and to report accidental releases. If a federal agency acquires a contaminated site, it can be held liable for cleanup as the property owner/operator. A federal agency can also incur liability if it leases a property, as the courts have found lessees liable as "owners." However, if the agency exercises due diligence by conducting a Phase I Environmental Site Assessment, it can claim the "innocent purchaser" defense under CERCLA. According to Title 42 United States Code (U.S.C.) 9601(35), the current owner/operator must show it undertook "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" before buying the property to use this defense.

The Toxic Substance Control Act (TSCA) of 1976 consists of four titles. Title I established requirements and authorities to identify and control toxic chemical hazards to human health and the environment. TSCA authorized USEPA to gather information on chemical risks, require companies to test chemicals for toxic effects, and regulate chemicals with unreasonable risk. TSCA also singled out polychlorinated biphenyls (PCBs) for regulation, and, as a result, PCBs are being phased out. PCBs are persistent when released into the environment and accumulate in the tissues of living organisms. They have been shown

to cause adverse health effects on laboratory animals and could cause adverse health effects in humans. TSCA and its regulations govern the manufacture, processing, distribution, use, marking, storage, disposal, clean-up, and release reporting requirements for numerous chemicals like PCBs. TSCA Title II provides statutory framework for "Asbestos Hazard Emergency Response," which applies only to schools. TSCA Title III, "Indoor Radon Abatement," states indoor air in buildings of the United States should be as free of radon as the outside ambient air. Federal agencies are required to conduct studies on the extent of radon contamination in buildings they own. TSCA Title IV, "Lead Exposure Reduction," directs federal agencies to "conduct a comprehensive program to promote safe, effective, and affordable monitoring, detection, and abatement of lead-based paint and other lead exposure hazards." Further, any federal agency having jurisdiction over a property or facility must comply with all federal, state, interstate, and local requirements concerning lead-based paint.

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APPENDIX C

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING (IICEP) MATERIALS

APPENDIX C

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) Materials

The 377 ABW will solicit comments on the Draft Environmental Assessment (EA) by distributing letters (example follows) and copies of the Draft EA to potentially interested Federal, state, and local agencies; Native American tribes; and other stakeholder groups or individuals, and by publishing a Notice of Availability (NOA) in *The Albuquerque Journal*. The following is a preliminary list of potentially interested parties:

Federal, State, and Local Agencies

Dr. Benjamin Tuggle, Regional Director
U.S. Fish and Wildlife Service
Southwest Regional Office
500 Gold Avenue SW
Albuquerque, NM 87102

Ms. Peg Sorenson
Southwestern Region NEPA Coordinator
U.S. Forest Service
333 Broadway Boulevard SE
Albuquerque, NM 87102

Mr. Matt Wunder, Chief
New Mexico Game and Fish
Conservation Services Division
1 Wildlife Way
Santa Fe, NM 87507

Mr. Ed Singleton, District Manager
Bureau of Land Management
Albuquerque District Office r
435 Montaño Road NE
Albuquerque, NM 87107

Mr. Jeff Robbins
NNSA Service Center/Albuquerque
KAFB East, Building 401
P.O. Box 5400
Albuquerque, NM 87185

Councilor Rey Garduño
Albuquerque City Council, District 6
One Civic Plaza NW
9th Floor, Room 9087
Albuquerque, NM 87102

Councilor Don Harris
Albuquerque City Council, District 9
One Civic Plaza
9th Floor, Room 9087
Albuquerque, NM 87102

Isleta Pueblo
Governor E. Paul Torres
P.O. Box 1270
Isleta Pueblo, NM 87022

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

Colonel Heather L. Pringle
377ABW/CV
2000 Wyoming Blvd SE Suite E-3
Kirtland AFB NM 87117-5000

{Address RTD}

Dear {TBD}

The United States Air Force's Air Force Materiel Command (AFMC) is preparing a tiered Environmental Assessment (EA) addressing control of aggressive coyote populations across Kirtland Air Force Base (AFB). The proposed project would contract Wildlife Services, a branch of the United States Department of Agriculture Animal Plant Health Inspection Service (USDA/APHIS) to remove packs of aggressive coyotes adjacent to family housing and urban areas on Kirtland AFB. The attached figure identifies the proposed treatment areas.

Family housing areas on Kirtland AFB have experienced an increase in coyote presence over the past year. Not only have the number of coyotes that frequent family housing increased, but the boldness of the coyotes has increased as well. Coyotes are now actively patrolling and hunting along brick walls and fenced yards within housing areas. To date, there has been one confirmed pet attack and several unconfirmed pet attacks. The increased bold behavior, coupled with increased pack numbers, has created a situation on Kirtland AFB that places installation residents' health and safety at risk.

This EA is being prepared in accordance with the National Environmental Policy Act (NEPA) (42 USC §§ 4371 et.seq.), the Council on Environmental Quality NEPA implementing regulations (40 CFR Parts 1500-1508), and the Air Force NEPA regulation (32 CFR Part 989). The EA will evaluate the potential impacts of the Proposed Action and alternatives, to include the No Action Alternative, on humans and the natural environment. Executive Order 12372, Intergovernmental Review of Federal Programs, requires federal agencies to solicit other federal agency participation in the NEPA process.

Accordingly, I am requesting your participation in the review and comment process. Copies of the Draft EA and the proposed Finding of No Significant Impact are available at http://www.kirtland.af.mil under the environmental issues tab.

If you have additional information regarding impacts of the Proposed Action to the natural environment or other aspects of which we are unaware, we would appreciate receiving such information for inclusion and consideration during the NEPA process. We look forward to and welcome your participation in this NEPA process. Please provide your written comments on the

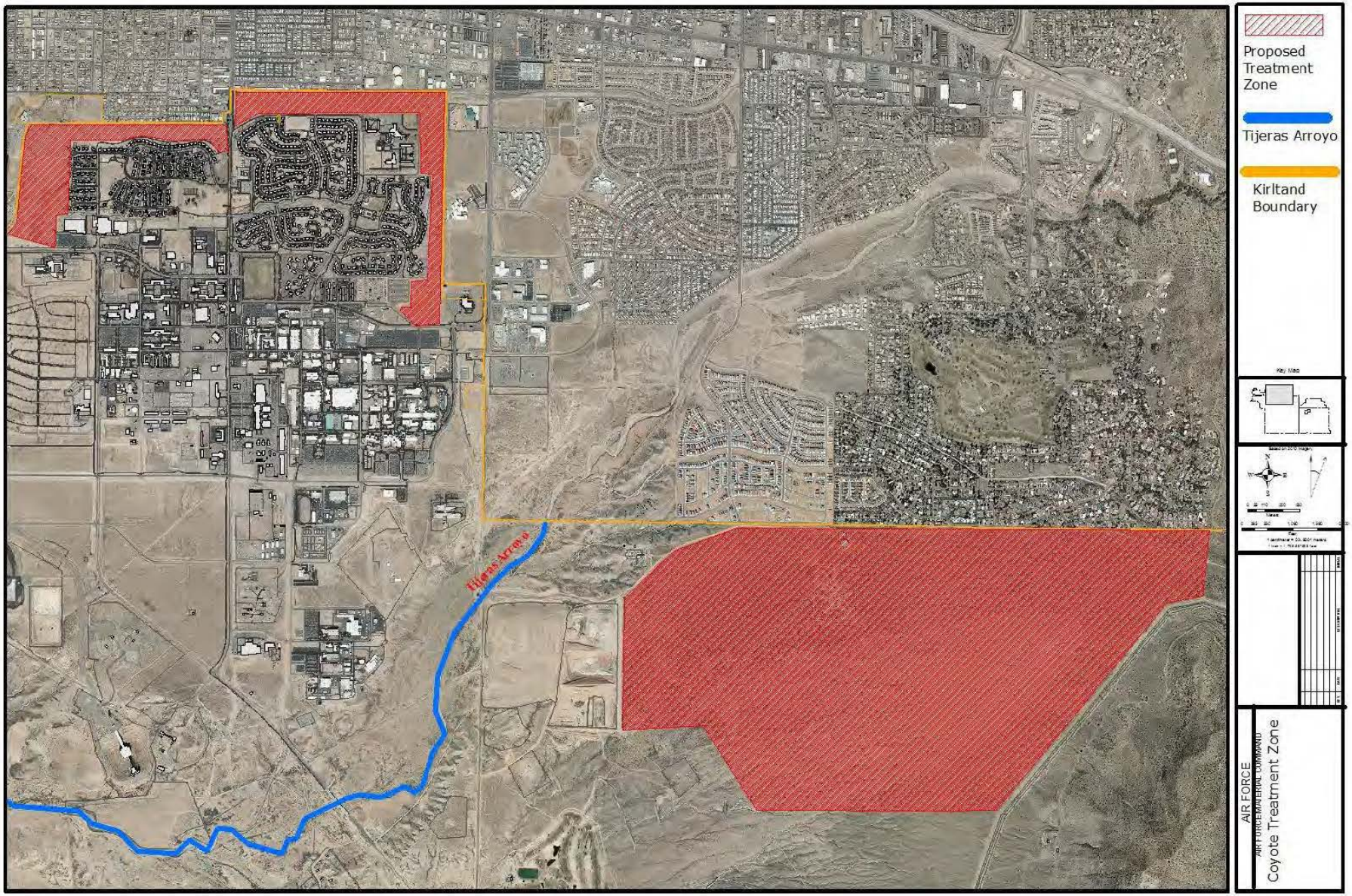
Draft EA or other information regarding this specific action within 14 days of receipt of this letter to ensure your concerns are adequately addressed in the EA.

Please send your written responses to the NEPA Program, Ms. Martha E. Garcia, 377 MSG/CEIE, 2050 Wyoming Boulevard SE, Suite 125, Kirtland AFB NM 87117, or via email to nepa@kirtland.af.mil.

Sincerely,

HEATHER L. PRINGLE, Colonel, USAF
Vice Commander

Attachment:
Proposed Treatment Areas on Kirtland AFB



Proposed Treatment Areas on Kirtland AFB

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

Colonel Heather L. Pringle
377ABW/CV
2000 Wyoming Blvd SE Suite E-3
Kirtland AFB NM 87117-5000

Governor E. Paul Torres
Pueblo of Isleta
PO Box 1270
Isleta Pueblo, NM 87022

Dear Governor Torres

The United States Air Force's Air Force Materiel Command (AFMC) is preparing a tiered Environmental Assessment (EA) addressing control of aggressive coyote populations across Kirtland Air Force Base (AFB). The proposed project would contract Wildlife Services, a branch of the United States Department of Agriculture Animal Plant Health Inspection Service (USDA/APHIS) to remove packs of aggressive coyotes adjacent to family housing and urban areas on Kirtland AFB. The attached figure presents identifies the treatment areas.

Family housing areas on Kirtland AFB have experienced an increase in coyote presence over the past year. Not only have the number of coyotes that frequent family housing increased, but the boldness of the coyotes has increased as well. Coyotes are now actively patrolling and hunting along brick walls and fenced yards within housing areas. To date, there has been one confirmed pet attack and several unconfirmed pet attacks. The increased bold behavior, coupled with increased pack numbers, has created a situation on Kirtland AFB that places installation residents' health and safety at risk.

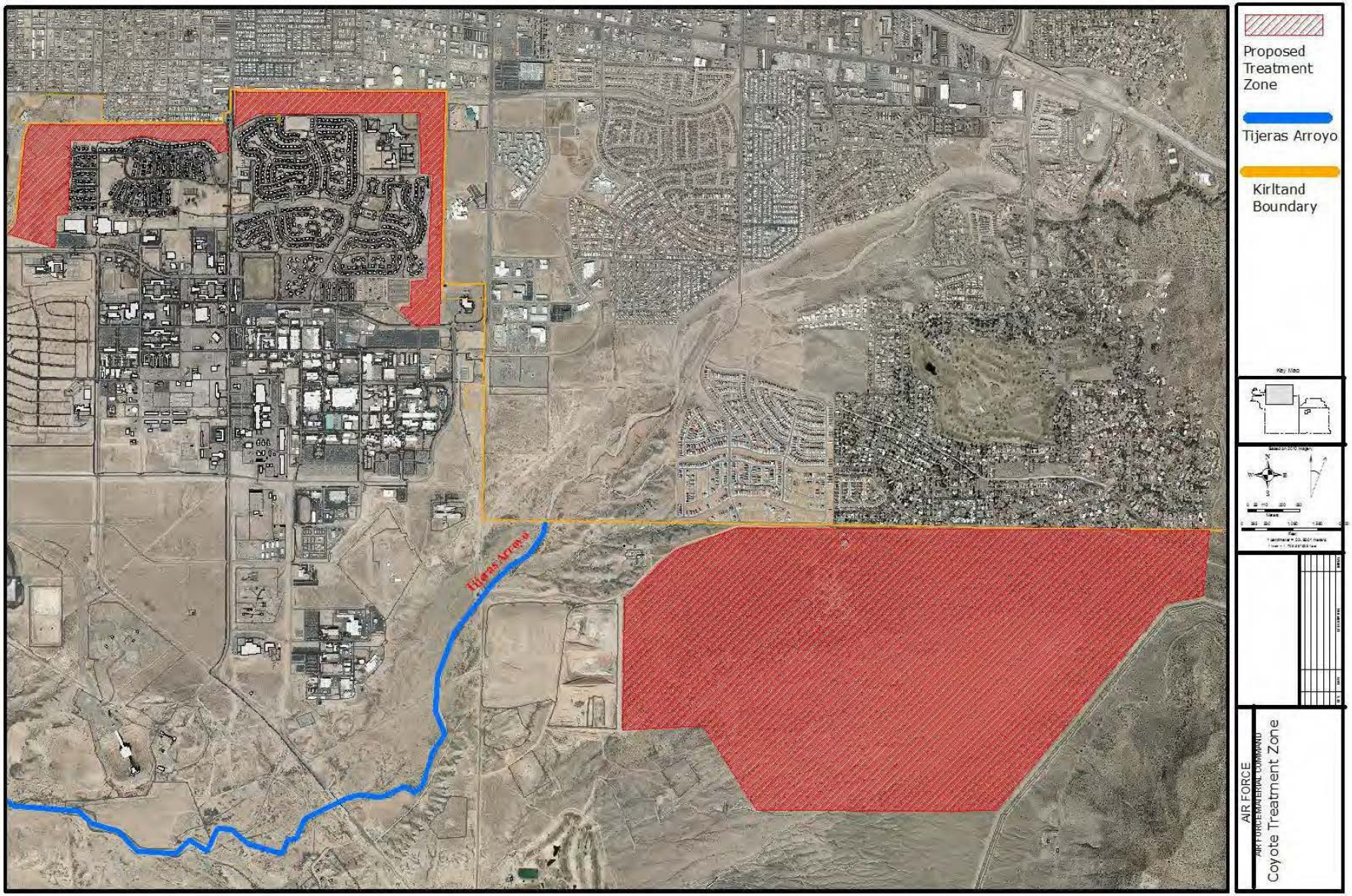
Pursuant to the NHPA (16 USC §§ 470 et seq.; 36 CFR§§ 800.2 through 800.4 and Executive Order 13175), the Air Force would like to initiate Government to Government consultation concerning the proposed project to allow you the opportunity to identify any comments, concerns and/or suggestions that you might have. As we move forward through this process, we welcome your participation and input.

Please contact my office at (505) 846-7377 if you would like to meet to discuss the proposed project and/or proceed with Section 106 consultation.

Sincerely,

HEATHER L. PRINGLE, Colonel, USAF
Vice Commander

Attachment:
Proposed Treatment Areas on Kirtland AFB



Proposed Treatment Areas on Kirtland AFB

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Albuquerque District Office
435 Montano Road NE
Albuquerque, New Mexico 87107-4935
www.blm.gov/nm

TAKE PRIDE IN AMERICA

In Reply Refer To:
6000 (LLNMA01000)

JUL 18 2013

Colonel Heather L. Pringle
c/o Martha E. Garcia, NEPA Program
377 MSG/CEIE
2050 Wyoming Boulevard SE Suite 125
Kirtland Air Force Base NM, 87117

Dear Colonel Pringle:

Based upon BLM's staff review of the Draft EA and proposed FONSI, the BLM has no comments on your proposed action to conduct coyote control activities across Kirtland Air Force through Integrated Wildlife Damage Management (IWDM). If you have further inquiries please feel free to contact our office at you convenience.

Sincerely,

Edwin Singleton

Edwin Singleton, District Manager
Albuquerque District Office
Bureau of Land Management
New Mexico State Office

cc: Tom Gow, Rio Puerco Field Office Manager
File: Angel Martinez Jr., Planning / Environmental Specialist

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APPENDIX D

WORK AND FINANCIAL PLAN
BETWEEN
KIRTLAND AIR FORCE BASE
AND
U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES
FOR AN INTEGRATED WILDLIFE DAMAGE MANAGEMENT PROGRAM

WORK AND FINANCIAL PLAN
between
KIRTLAND AIR FORCE BASE
and
UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES (APHIS-WS)
for
July 1, 2013 through September 30, 2013

For the Interagency Agreement between Kirtland Air Force Base and APHIS-WS, this Work Plan defines the objectives, plan of action, resources and budget for the maintenance of an Integrated Wildlife Damage Management (IWDM) program to protect residents, property, and natural resources from damage caused by predators and other nuisance wildlife to be conducted from July 1, 2013 through September 30, 2013.

I. OBJECTIVES/GOALS

Wildlife Services' overall goal is to maintain a biologically-sound IWDM program to assist property owners, businesses, private citizens, and governmental agencies in resolving wildlife damage problems and conduct control activities in accordance with applicable Federal, State and local laws and regulations. Assistance may be in the form of providing technical assistance or direct control activities. Recommendations and control activities will emphasize long term solutions and incorporate the Integrated Wildlife Damage Management approach.

The scope of this program is limited only by the financial resources allocated by the cooperator and APHIS-WS. Although successful elimination of any specific threat is not guaranteed, all reasonable efforts will be made to resolve or mitigate human-wildlife conflicts within financial and regulatory constraints.

II. PLAN OF ACTION

To accomplish this goal, the following general field services will be provided: (1) technical assistance through demonstration and instruction of wildlife damage prevention and/or control techniques; (2) predator identification and removal when domestic pet, property or natural resource damage is verified; (3) removal of wildlife displaying aggressive behavior or causing actual injury to base residents and/or employees. To provide these basic services, APHIS-WS will:

1. Assign one Wildlife Specialist(s) for up to 123 hours per year for the WDM program on Kirtland Air Force Base. Other cooperative contracts may contribute to the remainder needed to support the position and the assigned Wildlife Specialist may be detailed to other projects.

2. Procure and maintain a vehicle, tools, supplies, and other specialized equipment as deemed necessary by the State Director to accomplish the objectives identified in this plan.

3. Safely & professionally utilize approved wildlife damage management tools/equipment including firearms (including high-pressure air rifles), advanced optics, assorted snaring devices, all-terrain vehicles, leg hold traps for the protection of public safety, cage-type & other specialized traps, deterrent methods/devices (including pyrotechnics), Environmental Protection Agency approved toxicants (including euthanasia drugs), night vision equipment and electronic calling devices.
    a. Field Specialists will ensure that the most effective, efficient, and humane tools will be

utilized and will conduct direct control operations in a safe manner.

b. Equipment will be maintained in good working order to help prevent accidents and/or hazardous situations.

4. Conduct all control activities with trained USDA-WS employees and volunteers.

a. Technical Assistance may be in the form of recommendations for implementing various non-lethal techniques. Official USDA pamphlets may be used to convey this information.

b. Direct Control activities may include, but are not limited to the monitoring, trapping, dispersal, and shooting of known and potential predators or nuisance wildlife.

The District Supervisor in the WS Albuquerque District Office will supervise this project. This project will be monitored by the State Director and administrative staff in Albuquerque. The Cooperator will be kept advised on the status of this project on a regular basis.

APHIS-WS will cooperate with the New Mexico Department of Game and Fish, the U.S. Fish and Wildlife Service, County and local city governments, and other entities to ensure compliance with applicable Federal, State, and local laws and regulations.

III. PROCURMENT

Purchase of supplies, equipment and miscellaneous needs including salaries will be made by APHIS-WS. All expenditures will be processed through APHIS's FMMI system and charged to the Cooperator as described in the Financial Plan.

IV. STIPULATIONS AND RESTRICTIONS

APHIS-WS activities under this cooperative effort will be limited to Kirtland Air Force Base. Techniques will be environmentally sound, safe, and selective. If applicable, both Federal and State permits will be secured to perform wildlife damage management activities, and those activities will be conducted within the policy guidelines of APHIS-WS. All program activities will be conducted in compliance with Local, State, and Federal regulations.

V. COST ESTIMATE FOR SERVICES

The cooperator will be billed quarterly by APHIS-WS for costs incurred but will not exceed $5,000 annually. This figure includes a 16.15% APHIS overhead charge. APHIS-WS reserves the right to redistribute between funds in order to cover program costs.

Salary/Benefits	**$4,305**
APHIS Overhead (16.15%)	**$ 695**
Total	**$5,000**

In accordance with the Debt Collection Improvement Act (DCIA) of 1996, bills issued by WS are due and payable within 30 days of receipt. The DCIA requires that all debts older than 120 days be forwarded to debt collection centers or commercial collection agencies for more aggressive action. Debtors have the option to verify, challenge and compromise claims, and have access to administrative appeals procedures which are both reasonable and protect the interests of the United States.

The financial point of contact for this Work Plan/Financial Plan is Patsy Baca, Budget Analyst (505) 346-2640.

VI. NEPA

Kirtland Air Force Base agrees that it is responsible for compliance with the National Environmental Policy Act (NEPA), the Endangered Species Act, and any other environmental compliance laws for the specific projects and actions it requests WS to perform for it under this agreement.

The performance of wildlife damage management actions by APHIS-WS under this agreement is contingent upon a determination by APHIS-WS that such actions are in compliance with the National Environmental Policy Act, Endangered Species Act, and any other applicable environmental statutes. APHIS-WS will not make a final decision to conduct wildlife damage management actions until it has made the determination of such compliance.

KIRTLAND AIR FORCE BASE
Tax Identification Number: XX-XXXXXX-XX-X

_____ _____
TOM D. MILLER, Colonel, USAF Date
Commander

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
WILDLIFE SERVICES
Albuquerque, NM
Tax Identification Number: 41-0696271

_____ _____
State Director, New Mexico Date

_____ _____
Director, Western Region Date

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