



NEVADA TEST AND TRAINING RANGE (NTTR) LAND WITHDRAWAL

Legislative Environmental Impact Statement

EXECUTIVE SUMMARY

October 2018 • FINAL

This Executive Summary of the Final Legislative Environmental Impact Statement (LEIS) for the Nevada Test and Training Range (NTTR) Land Withdrawal provides a summary of information that is presented in the LEIS. The LEIS provides a programmatic analysis of the potential environmental impacts of the proposed extension of the current land withdrawal for the NTTR and possible expansion of its boundaries.

A CD containing the Final LEIS is provided inside the back cover of this Executive Summary. A copy of the Final LEIS is available at each of the public libraries and repositories listed below. In addition, a copy of the Final LEIS is available online at www.nttrleis.com.

Libraries/Repositories Holding Copies of the Final LEIS

University of Nevada, Las Vegas Library
4505 South Maryland Parkway
Las Vegas, NV 89154

Beatty Library District
400 North 4th Street
Beatty, NV 89003

University of Nevada, Reno Library
Mathewson-IGT Knowledge Center
1664 N. Virginia Street
Reno, NV 89557

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Reno, NV 89502

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Las Vegas, NV 89101

Nye County Commissioners Office
101 Radar Road
Tonopah, NV 89049

Alamo Branch Library
100 South First West
Alamo, NV 89001

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ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFI	Air Force Instruction
APE	area of potential effects
AUM	animal unit months
BLM	Bureau of Land Management
BMPs	best management practices
CDNL	C-weighted day-night average sound level
CFR	Code of Federal Regulations
DNL	day-night average sound level
DNWR	Desert National Wildlife Range
DoD	Department of Defense
DOE	Department of Energy
ECR	Electronic Combat Range
FARRP	Forward Air Refueling and Rearming Procedures
GHG	greenhouse gas
HMA s	herd management areas
ICRMP	Integrated Cultural Resources Management Plan
ISR	intelligence surveillance reconnaissance
IW	Irregular Warfare
LEIS	Legislative Environmental Impact Statement
MCO	Major Combat Operations
MLWA	<i>Military Land Withdrawal Act of 1999</i>
NATCF	Nellis Air Traffic Control Facility
NEPA	<i>National Environmental Policy Act</i>
NHPA	<i>National Historic Preservation Act</i>
NM	nautical miles
NNSA	National Nuclear Security Administration
NTTR	Nevada Test and Training Range
NWR	National Wildlife Refuge
OHV	off-highway vehicle
ROI	region of influence
SUA	Special Use Airspace
UAS	unmanned aerial system
USAFWC	U.S. Air Force Warfare Center
USFWS	U.S. Fish and Wildlife Service
WSAs	Wilderness Study Areas

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ES.1 INTRODUCTION

The U.S. Air Force proposes to withdraw and reserve public lands for military use to support the utilization and modernization of the Nevada Test and Training Range (NTTR) by enhancing range capability for improved training and testing. The NTTR is the preeminent range for testing and evaluation of weapons systems, tactics development, and advanced combat training. However, the range and its infrastructure are quickly becoming outdated as rates of technological development of new weapons systems and electronic warfare systems accelerate. Since enemy technology has become increasingly advanced and complex, more space is needed to replicate threat configurations. The NTTR can no longer replicate this threat environment.

The *Military Land Withdrawal Act of 1999* (MLWA), Public Law No. 106-65, withdrew approximately 2.9 million acres of land from public use for the current NTTR land base. The current withdrawal will expire on November 6, 2021, unless Congress enacts legislation to extend it. As a result of the evolving mission, this Legislative Environmental Impact Statement (LEIS) programmatically evaluates alternatives that would extend or expand the current military land withdrawal in order to safely execute its missions in a more realistic and operationally relevant manner. The Final LEIS will be submitted as part of the legislative proposal for the future NTTR military land withdrawal. Congress will make the final decision on whether to extend the withdrawal and/or expand the boundaries of the current NTTR land withdrawal through legislation. The Air Force is also following the applicable procedures set forth in Bureau of Land Management (BLM) regulations at Title 43 Code of Federal Regulations (CFR) Part 2300 that implement the U.S. Department of the Interior's authority to process federal land withdrawal applications.

The Air Force is the lead agency for the LEIS, while cooperating agencies are the BLM; Department of Energy (DOE); National Nuclear Security Administration (NNSA); U.S. Fish and Wildlife Service (USFWS) National Wildlife Refuges and Ecological Services programs; Nevada Department of Wildlife; and Nevada Association of Counties. The Air Force also initiated government-to-government consultation with federally recognized tribes potentially affected by the NTTR land withdrawal, as well as appropriate Nevada state agencies and local counties, towns, and cities.

The NTTR is part of the U.S. Air Force's Major Range and Test Facility Base enterprise and is operated by the U.S. Air Force Warfare Center's (USAFWC's) Headquarters NTTR. As a national security infrastructure asset, the NTTR is managed by the Air Force but hosts activities associated with all Department of Defense (DoD) entities, the DOE, NNSA (including Sandia National Laboratories), and Homeland Security. The NTTR is located in southeastern Nevada and includes both the land and overlying airspace. The NTTR airspace comprises roughly 12,000 square nautical miles (NM) and is about 150 NM wide at its widest point (west to east) and 110 NM long (north to south). Figure ES-1 shows an outline of the NTTR land and airspace and its relationship to the city of Las Vegas to the south, Nellis Air Force Base (AFB), and Creech AFB. Figure ES-2 depicts the North and South Ranges of the NTTR.

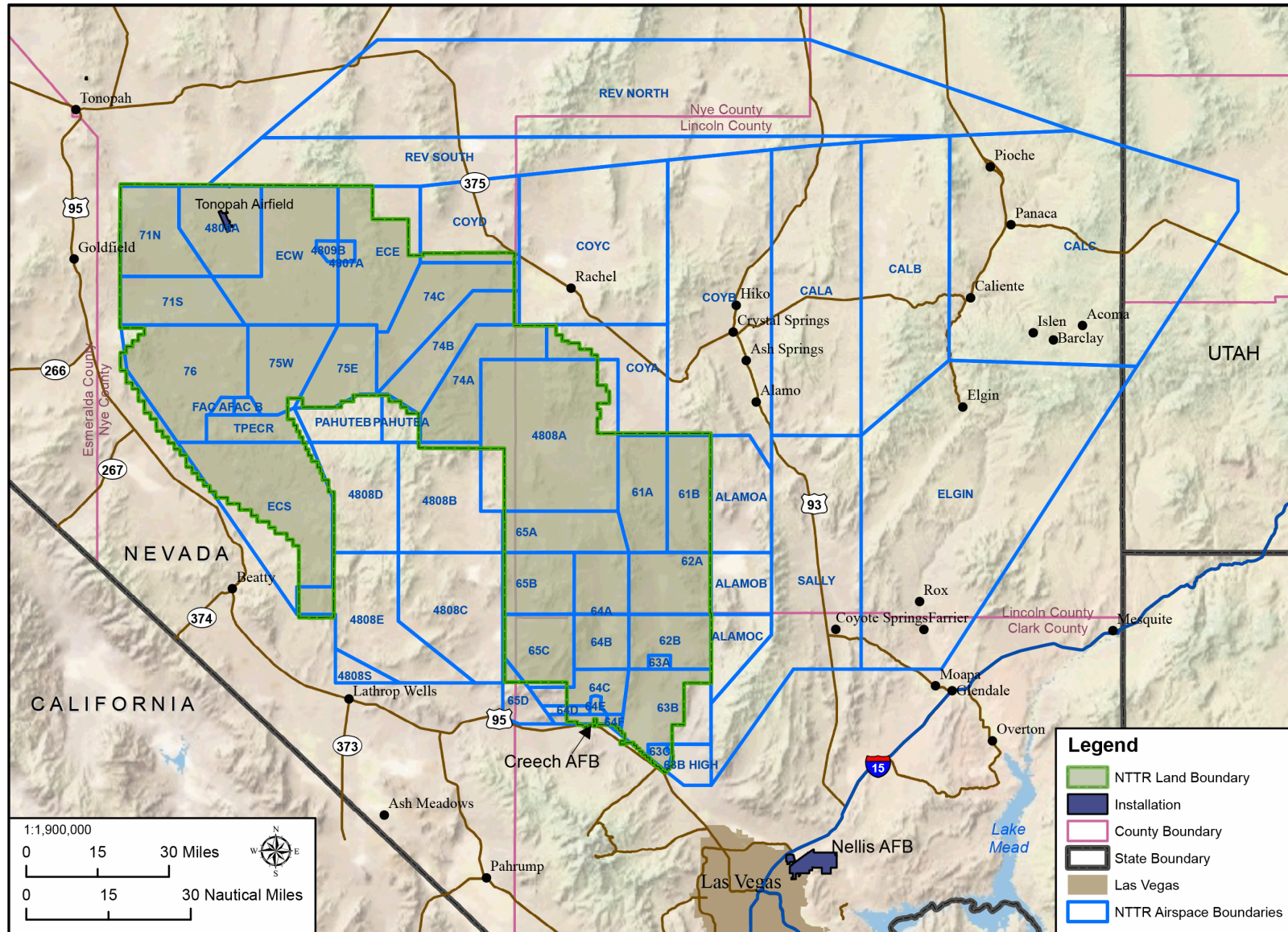


Figure ES-1. Nevada Test and Training Range Land and Airspace Boundary

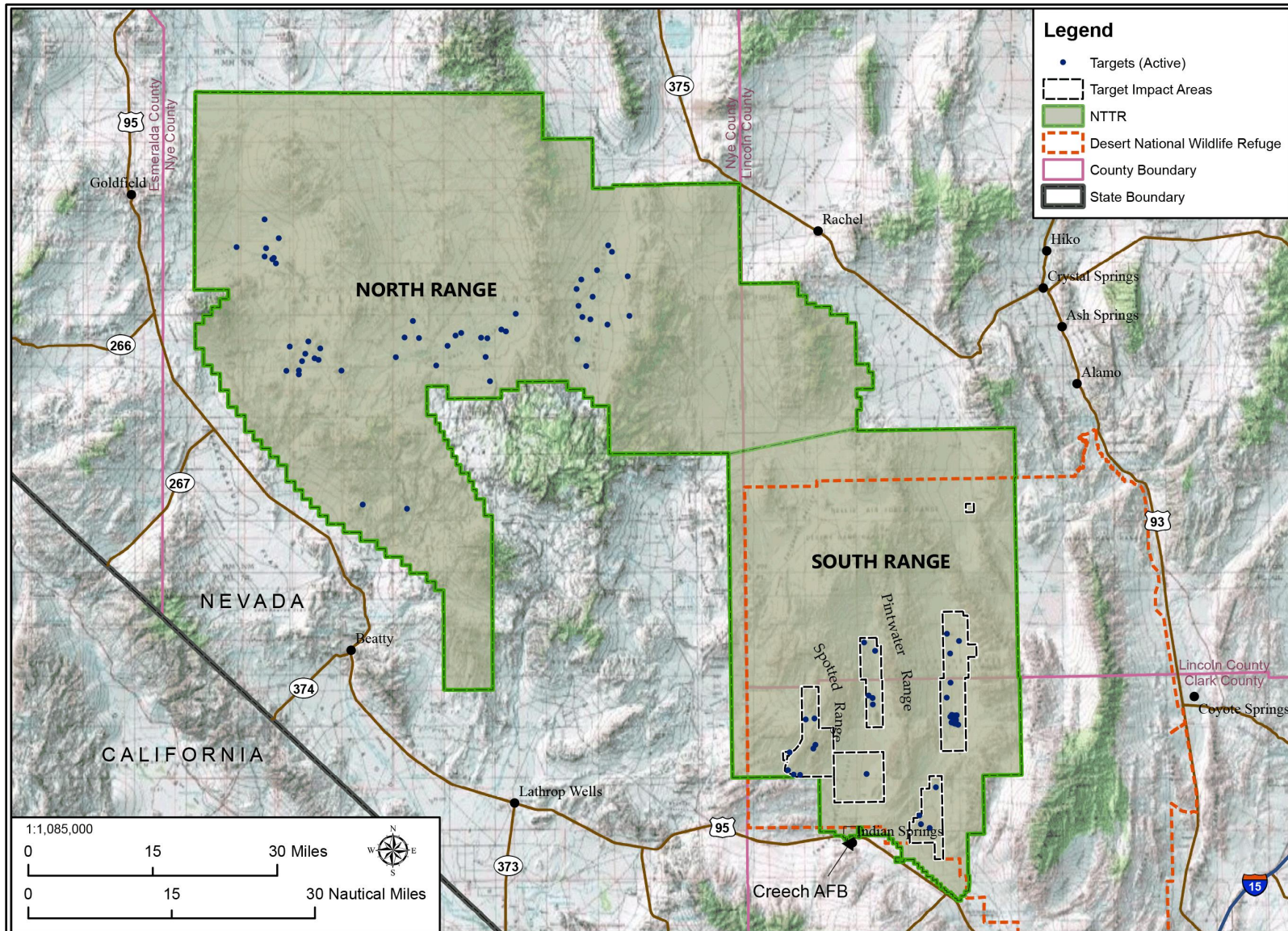


Figure ES-2. North and South Range Operations Areas of the NTTR

As shown in Figure ES-2, the NTTR is split into the North and South Ranges to facilitate overall management of Air Force operations and test and training opportunities on each range. The major facilities are Creech AFB and airfield, Tolicha Peak, and the Tonopah Test Range and airfield. Facilities also include roads, radar sites, other communication systems, and range electronic measuring devices.

The North Range contains mountain ranges oriented to the north and south with wide valleys, where most of the target areas are located. The North Range is approximately 1.8 million acres of withdrawn land and contains approximately 1,263 targets within 63 tactical target complexes (Figure ES-2). The type of weapons authorized for delivery depends on the target selected. There are multiple and dispersed facilities that support three Electronic Combat Ranges (ECRs), including Tonopah ECR, Tolicha Peak ECR, and Electronic Combat South Range (hereinafter referred to as “EC South”).

The South Range is approximately 1.2 million acres of withdrawn land located in the southeastern portion of the NTTR. Mountain ranges in the South Range are north/south oriented with narrow valleys that contain dry lakebeds. The South Range contains five weapons-delivery areas, which are subdivided into 74 target complexes containing approximately 1,363 targets.

The Desert National Wildlife Refuge Complex is one of the largest wildlife refuges in the United States, with approximately 1.6 million acres of land, and consists of three geographically separated refuges (Ash Meadows National Wildlife Refuge [NWR], Moapa Valley NWR, and Pahrangat NWR) and the Desert National Wildlife Range (DNWR). About half of the DNWR (approximately 826,000 acres) overlaps the lands withdrawn for the South Range (Figure ES-3). Almost 90 percent of the DNWR (about 1.4 million acres) has been proposed as wilderness by the USFWS since 1971, and about 590,000 of those acres are in the South Range. Generally, areas proposed for wilderness areas in the South Range correspond to elevations above 4,000 feet above mean sea level. The areas proposed for wilderness on the South Range are managed as de facto wilderness by virtue of USFWS land management policy, which results in significant restriction on Air Force activities to areas below 4,000 feet. Existing roads (mountain roads/passages) other than those used below 4,000 feet are off limits, as is troop movement, ground disturbance, and the development of new locations such as emitter sites and communication sites. Previously used targets that are located in areas that were proposed as wilderness in 1971 are also off limits. Targets in the South Range are restricted to the playas (dry lakebeds) within the 60-series ranges and accommodate live and inert ordnance.

The MLWA (1999) directs that the Secretary of the Interior is to manage the USFWS portion of the DNWR in coordination with the Secretary of the Air Force through a Memorandum of Understanding that was renewed in 1997 and describes how the management responsibilities of each agency will be implemented. The memorandum delineates how the Air Force is able to use ground areas in the South Range below the 4,000-foot contour line, which includes the target impact areas. Primary jurisdiction of these impact areas, also referred to as the “60-series” ranges, was transferred to the Air Force, and the Secretary of the Interior (via the USFWS) maintains secondary jurisdiction for wildlife conservation purposes.

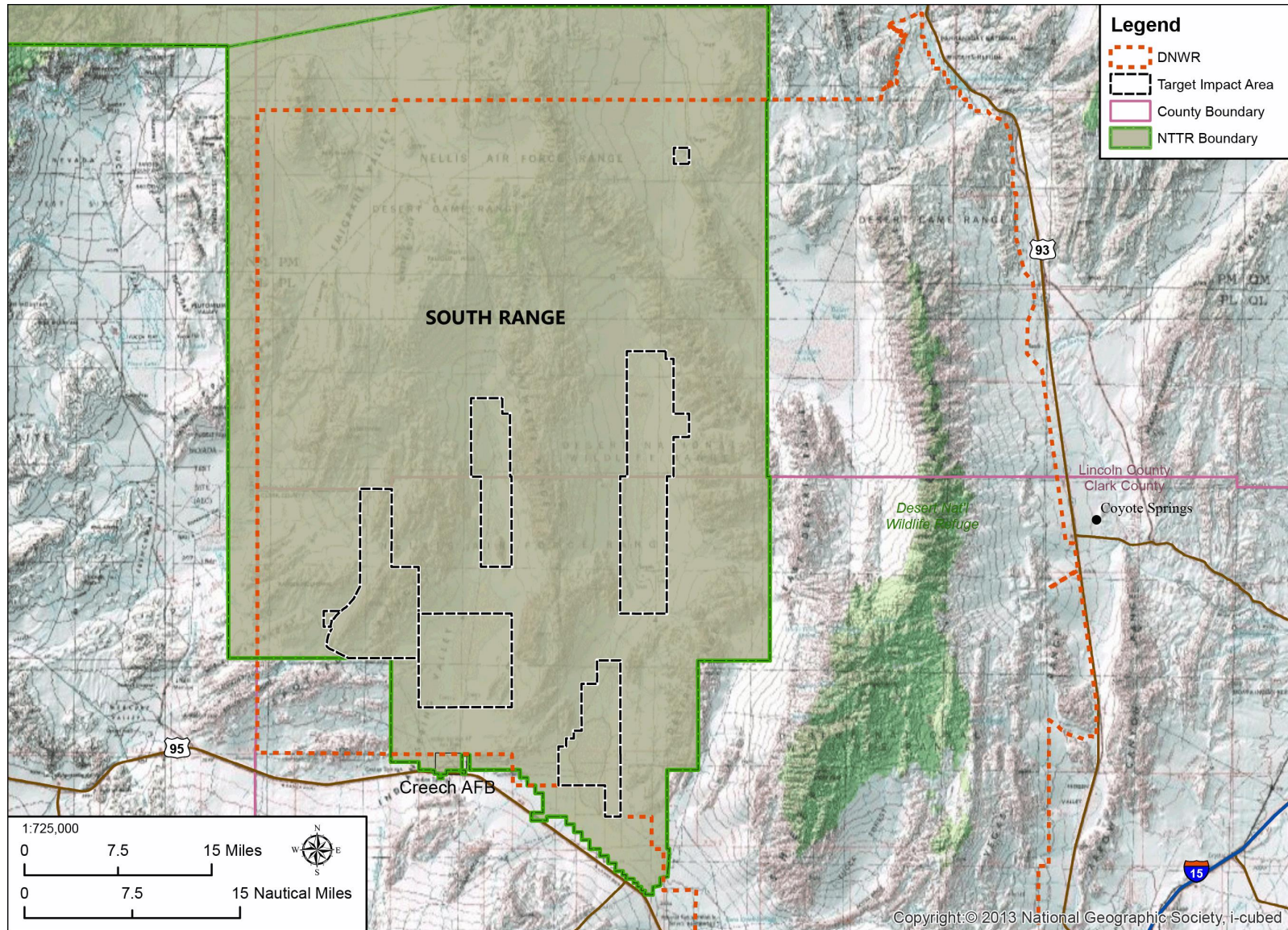


Figure ES-3. South Range Overlap with the DNWR

ES.2 PURPOSE AND NEED

The Air Force's purpose and need for action is to sustain and enhance the military testing and training capacity, capability, and functionality of the NTTR through the land withdrawal process to meet current and future mission requirements while continuing environmental stewardship of the lands entrusted to it. Mission requirements include, without limitation, the following:

- Increase Major Combat Operations (MCO) test/training capability to meet the demands of strategic guidance and alleviate competition for critical MCO electronic assets
- Enhance Irregular Warfare (IW) test/training capability
- Increase NTTR operational security and safety

As a result of the DNWR and areas proposed for wilderness overlapping the NTTR South Range, there are significant restrictions on Air Force activities. New land management practices would allow for improved use of the South Range and efficient utilization of the associated airspace to better support military testing and training activities. In addition, the NTTR and its current infrastructure are quickly becoming outdated as rates of technological development of new weapons systems and electronic warfare systems accelerate. The NTTR can no longer replicate relevant threat environments. Thus, the Air Force proposes to withdraw and reserve public lands for military use to support the utilization and modernization of the NTTR by enhancing range capability for improved training and testing.

ES.2.1 INCREASE MCO TEST/TRAINING CAPABILITY TO MEET THE DEMANDS OF STRATEGIC GUIDANCE AND ALLEVIATE COMPETITION FOR CRITICAL MCO ELECTRONIC ASSETS

The NTTR must increase MCO capabilities to meet current and future MCO test/training requirements. Section 1.4.1 of the LEIS describes the NTTR's current capacity and future requirements, based on DoD Strategic Guidance. Increasing testing and training capacity will also reduce ongoing scheduling conflicts and alleviate competition between the various users, which will improve the efficiency of conducting NTTR operations.

ES.2.2 ENHANCE IRREGULAR WARFARE TEST/TRAINING CAPABILITY

IW operations have had an expanding role in developing aircrew and airborne systems, highlighting the critical need to integrate special operations forces and battlefield Airmen. Typical IW training includes ground training supported by air and vehicle operations. To increase the realism of the training events, some training ammunition (blank small arms), hand flares, smoke grenades, or other training munitions (such as paint balls) are expended during certain operations. As described in Section 1.4.2 of the LEIS, IW operations include air and vehicle IW operations support, insertion/extraction

(drop zone/landing zone) and overland navigation, and combined unmanned aerial system (UAS) and IW training.

Air and Vehicle IW Operations Support

Airborne operations include the use of rotary- or fixed-wing aircraft for the insertion, extraction, movement, or supplying of ground troops. Ground support vehicles occasionally deliver and retrieve the participating troops or provide support and logistics. Ground vehicle movement is normally restricted to the existing road and trail network, but some training activities use all-terrain vehicles or “dune buggies.” To accommodate the very important role NTTR plays in training combat units, the following capabilities at the NTTR are required:

- Development of unique insertion and extraction points
- Overland navigation (areas with and without mountainous terrain)
- UAS coordinated efforts with overland navigation

Insertion/Extraction (Drop Zone/Landing Zone) and Overland Navigation

The NTTR’s current capability to replicate a full battle spectrum for IW training is severely constrained and limited to the North Range. Keno Airfield in the North Range is highly utilized by Air Mobility Command, Special Operations Forces, and Marine Amphibious Forces to maintain combat mission-ready status because it is the only location on the NTTR with insertion and extraction training capabilities. Insertion and extraction activities and overland navigation cannot be conducted in the South Range because of land management restrictions associated with the overlapping areas of the DNWR and safety hazards in the impact areas under the Air Force’s primary jurisdiction.

Combined UAS and IW Training

Similar to MCO test and evaluation and training, intelligence surveillance reconnaissance (ISR) has become a key component in IW strategies training programs. Creech AFB is at the center of UAS training and is located on the NTTR in close proximity to the South Range, making it the ideal location to test and train these assets. However, as mentioned previously, IW training in the South Range is limited due to access restrictions.

ES.2.3 INCREASE NTTR OPERATIONAL SECURITY AND SAFETY

Over the last 20 years, the population in Clark County (Las Vegas metropolitan area) has grown significantly, primarily in the northern half of the county, which abuts the NTTR. Consequently, NTTR managers have encountered public encroachment onto the range. The USAFWC believes that increasing the buffer and adjoining it to major infrastructure, such as roads or fencing, would help the public more readily recognize the true boundaries of the NTTR and limit the potential for public intrusions, thereby increasing public safety.

ES.3 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This LEIS evaluates alternatives that would extend or expand the current NTTR land withdrawal. As detailed in Sections 2.1 and 2.2 of the LEIS, the Air Force developed a detailed screening process to identify the alternatives carried forward in the analysis that meet the selection standards developed for each of the operational requirements summarized above in Sections ES.2.1 through ES.2.3 of this Executive Summary.

The programmatic analysis in this LEIS focuses mainly on the proposed use of the area from a conceptual and qualitative perspective, and site-specific NEPA analyses will be necessary in the future for specific locations and routes once a decision on withdrawal has been made and information becomes more mature. Details regarding the actions that are currently known are outlined in Section 2.3 of the LEIS. These conceptual details were the basis of analysis for the LEIS.

Conceptual plans are used to characterize types of impacts on a programmatic level. Site-specific NEPA analyses will be necessary in the future once a decision on withdrawal has been made. Sections ES.3.1 through ES.3.5 below provide a summary of the alternatives considered, while Section 2.3 of the LEIS provides more detailed discussion.

ES.3.1 ALTERNATIVE 1 – EXTEND EXISTING LAND WITHDRAWAL AND MANAGEMENT OF THE NTTR (NORTH AND SOUTH RANGE) – STATUS QUO

Under Alternative 1, there would be no changes to the current NTTR boundary, operational activities, or land management practices. The “status quo” would meet a limited portion of the purpose and need, and the military test and training missions conducted at the NTTR would become increasingly constrained moving into the future. Although Alternative 1 significantly restricts test and training missions, it was evaluated and also used as a baseline for a comparative programmatic evaluation contrasted with all other alternatives.

ES.3.2 ALTERNATIVE 2 – EXTEND EXISTING LAND WITHDRAWAL AND PROVIDE READY ACCESS IN THE NORTH AND SOUTH RANGES

The NTTR boundary under Alternative 2 would be the same as with Alternative 1, but the Air Force would have “ready access” in both the North and South Ranges. Section 1.4.1 of the LEIS defines “ready access” as it pertains to the LEIS. Alternative 2 analyzes the potential impacts from increasing range utilization by applying a 30 percent increase in test and training activities, including aircraft operations, munitions expenditures, and motorized vehicular activities. In addition, it is assumed that there would be approximately a total of 11.5 acres of total ground disturbance.

ES.3.3 ALTERNATIVE 3 – EXPAND WITHDRAWAL OF PUBLIC LANDS FOR THE NTTR

There are three subalternatives analyzed under Alternative 3, shown in Figure ES-4. Each of the subalternatives includes ready access and a 30 percent increase in aircraft operations, munitions expenditures, and motorized vehicular activities. The land boundary under all subalternatives includes the current NTTR boundary and various expansion options needed for operational and safety requirements. Each of the subalternatives associated with Alternative 3 would require fencing but the fencing would be constructed to meet BLM fencing requirements, dependent on the topography and wildlife present, as outlined in BLM Handbook H-1741-1: Fencing, and the objective of the fencing would be to provide a physical barrier to prevent public access while allowing wildlife passage.

The Air Force recognizes that various cooperating agencies conduct ongoing studies and survey activities that are not related to this LEIS. Valuable data has been assimilated as a result of these long-term efforts, which specifically assist in managing biological and cultural issues in the areas associated with Alternative 3. Thus, the Air Force shall seek avenues with USFWS and BLM to continue long-term study and survey efforts, through the INRMP, and will continue operating within the Air Force procedures currently in place and outlined in Section 2.2.1 of the LEIS.

ES.3.3.1 Alternative 3A – Range 77 – EC South Withdrawal

As indicated in Section ES.2.2 of this Executive Summary, the Air Force has identified ISR as a key component in IW strategies and has incorporated a robust training program to implement those strategies. Creech AFB is at the center of UAS training and is located on the NTTR. This provides a seamless opportunity to test and train crews and systems that are currently required for any IW operation. Ground personnel must be able to integrate ISR strategy into operations.

Alternative 3A would increase the NTTR boundary by approximately 18,000 acres and would be used to add buffer area to the safety footprint of the EC South area (redesignated as “Range 77”). In addition, approximately 25 miles of fencing would be constructed to preserve the safety of the public and provide wildlife passage. Munitions would not be used in this area.

ES.3.3.2 Alternative 3A-1 – Amended Range 77 – EC South Withdrawal

Alternative 3A-1 reduces the expansion area of Alternative 3A so that the total expansion area of Alternative 3A-1 is approximately 15,000 acres (Figure ES-5). This subalternative was created in response to public input regarding potential impacts to recreational and economic resources as well as concerns related to the proposed routes of the Section 368 energy Corridor 18-224 and Interstate 11.



Figure ES-5. Alternative 3A and 3A-1 Locations and Acreages

ES.3.3.3 Alternative 3B – 64C/D and 65D Withdrawal and Administrative Incorporation

As discussed in Section ES.2.3, to address unauthorized public access incidents that have occurred in the overlap of the northern portion of Clark County and NTTR's South Range, the USAFWC evaluated those areas where the most incidents have occurred to minimize the amount of buffer area to be requested. In addition, areas that were administratively omitted by BLM during the previous land withdrawal were included so they could be formally included as part of the security buffer. The USAFWC used roadway infrastructure to establish a recognizable boundary along with airspace maps.

Alternative 3B would withdraw approximately 57,000 additional acres along the current NTTR boundary of the South Range, including nearly 49,000 acres of area designated as 64C/D and 65D along the southern border of the NTTR and about 6,500 acres parallel to the current NTTR boundary and the U.S. Route 95 Nevada Department of Transportation right-of-way. The remaining area along the eastern edge of range areas 63B and 63 rectifies the omission of this area during the 2001 land withdrawal. Approximately 30 miles of fencing would be constructed to reduce public access while providing wildlife passage.

ES.3.3.4 Alternative 3C – Alamo Withdrawal

For Alternative 3C, the Air Force is requesting the withdrawal of approximately 227,000 acres of the DNWR, which corresponds with potential weapons safety footprints associated with moving targets within the existing target impact areas. Live munitions would only be used specifically in the target impact areas.

During public scoping, concerns were raised about the loss of public access to the DNWR. As a result, the Air Force proposed to maintain public access to key recreational areas such as Hidden Forest Cabin, Corn Creek Field Station, Cow Camp trailhead, and Joe May trailhead, as well as springs such as Corn Creek, Cow Camp, Upper Deadman, Lower Deadman, and Sawmill, among others. Limited access to the remaining areas under this subalternative expansion, based on current practices, would be granted on a case-by-case basis.

In addition, Alternative 3C would include the construction of two austere runways (one active and one as a "mock-up" used for training) and approximately 60 miles of fencing. Proposed training activities would be associated with various aircraft, and Forward Area Arming and Refueling Points would be used in austere areas such as a dry lake bed. Consequently, it is anticipated that there would be 24.5 acres of total ground disturbance for Alternative 3C, which was the upper limit used in analyses of the affected resources in Chapter 3. It should be noted that there will be no new target impact areas created in any proposed expansion areas. However, small arms blank munitions and inert weaponry activities would occur in the proposed expansion area associated with Alternative 3C.

ES.3.4 ALTERNATIVE 4 – ESTABLISH THE PERIOD OF WITHDRAWAL

There are three subalternatives analyzed under Alternative 4. The only difference among the three subalternatives is the length of the new withdrawal period, which would begin upon the conclusion of the existing withdrawal period that is currently scheduled to expire on November 6, 2021. In order to implement any of the Alternative 4 subalternatives, it would have to be paired with one or more of the other alternatives or subalternatives presented above.

ES.3.4.1 Alternative 4A – 20-Year Withdrawal Period

Under Alternative 4A, the new withdrawal would expire after 20 years.

ES.3.4.2 Alternative 4B – 50-Year Withdrawal Period

Under Alternative 4B, the new withdrawal would expire after 50 years.

ES.3.4.3 Alternative 4C – Indefinite Withdrawal Period

Under Alternative 4C, the new withdrawal would not expire.

ES.3.5 NO ACTION ALTERNATIVE

Under the No Action Alternative, Congress would exercise its constitutional authority to not take action to extend the withdrawal legislation. The proposed withdrawal duration of the No Action Alternative would end on November 6, 2021. Section 2.4 of the LEIS describes the management implications for the former NTTR lands and the various actions that could be taken by the Secretary of the Interior and Secretary of the Air Force to establish future uses of the land area. Management of and access to all other lands would be under jurisdiction of the BLM or USFWS and subject to the multiple resource management objectives dependent on the managing agency. In addition, prohibitions previously placed in effect by the MLWA would expire and appropriate land uses such as mining, mineral leasing, or livestock grazing could potentially be reintroduced. Management of the former NTTR lands would continue as currently directed until new management planning under *Federal Land Policy and Management Act* (FLPMA) and NEPA regulations could be completed. Existing land use management objectives of BLM lands on the perimeter or the vicinity of the NTTR would continue. Implementation of the No Action Alternative would require the Secretary of the Interior and the Secretary of the Air Force to undertake various actions to establish future uses of the former NTTR lands.

ES.4 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A summary of the potential impacts for each resource that may be affected by the alternatives, including the Proposed Action, is presented below, with detailed discussion provided in Chapters 3 and 4 of the LEIS. The scope of the LEIS includes consideration of 14 resource areas.

ES.4.1 AIRSPACE

The specific airspace areas controlled by the Nellis Air Traffic Control Facility (NATCF) and considered in the analysis are defined in Sections 3.1.1.3 through 3.1.1.8 of the LEIS. None of the proposed alternatives would involve physical changes (external boundaries, dimensions, altitudes, etc.) to any airspace currently controlled by the NATCF. The LEIS only analyzes potential changes to how the airspace is used. Under Alternative 1, congestion, range constraints, and the inability to properly test and train would continue across the NTTR. Under Alternative 2, aircraft operations would increase; however, the existing airspace would be more efficiently utilized under ready access, which would reduce airspace scheduling conflicts. Expansion Alternatives 3A, 3A-1, 3B, and 3C would increase aircraft operations over the respective land areas, however, impacts to airspace would be similar to those addressed under Alternative 2. No specific airspace impacts are associated with any subalternatives of Alternative 4; impacts would be the same as those described for the other action alternatives, with Alternative 4 defining the timeframe over which those impacts may occur. Under the No Action Alternative, existing airspace would not be affected by not extending the land withdrawal. However, without control of ground areas, the restricted airspace could not be used for its intended purpose.

ES.4.2 NOISE

The noise analysis in Section 3.2 of the LEIS considers potential impacts that could result in annoyance, speech interference, sleep disturbance, human health effects (auditory and nonauditory), wildlife impacts, and structural damage. Noise models were used to analyze aircraft operations (subsonic and supersonic noise), large-caliber weapon noise, construction noise associated with ground disturbance activities, and emitter operations noise. Figure ES-6, Figure ES-7, and Figure ES-8 depict the results from the noise analysis for subsonic, supersonic, and large-caliber weapon noise, respectively.

For Alternative 1, operational tempo is anticipated to remain at the baseline levels, which at this time is considered to result in no adverse impacts. Aircraft operations under Alternatives 2, 3A, 3A-1, 3B, and 3C were analyzed as an increase of 30 percent; however, increases in noise levels would be minimal (1 decibel [dB] or less).

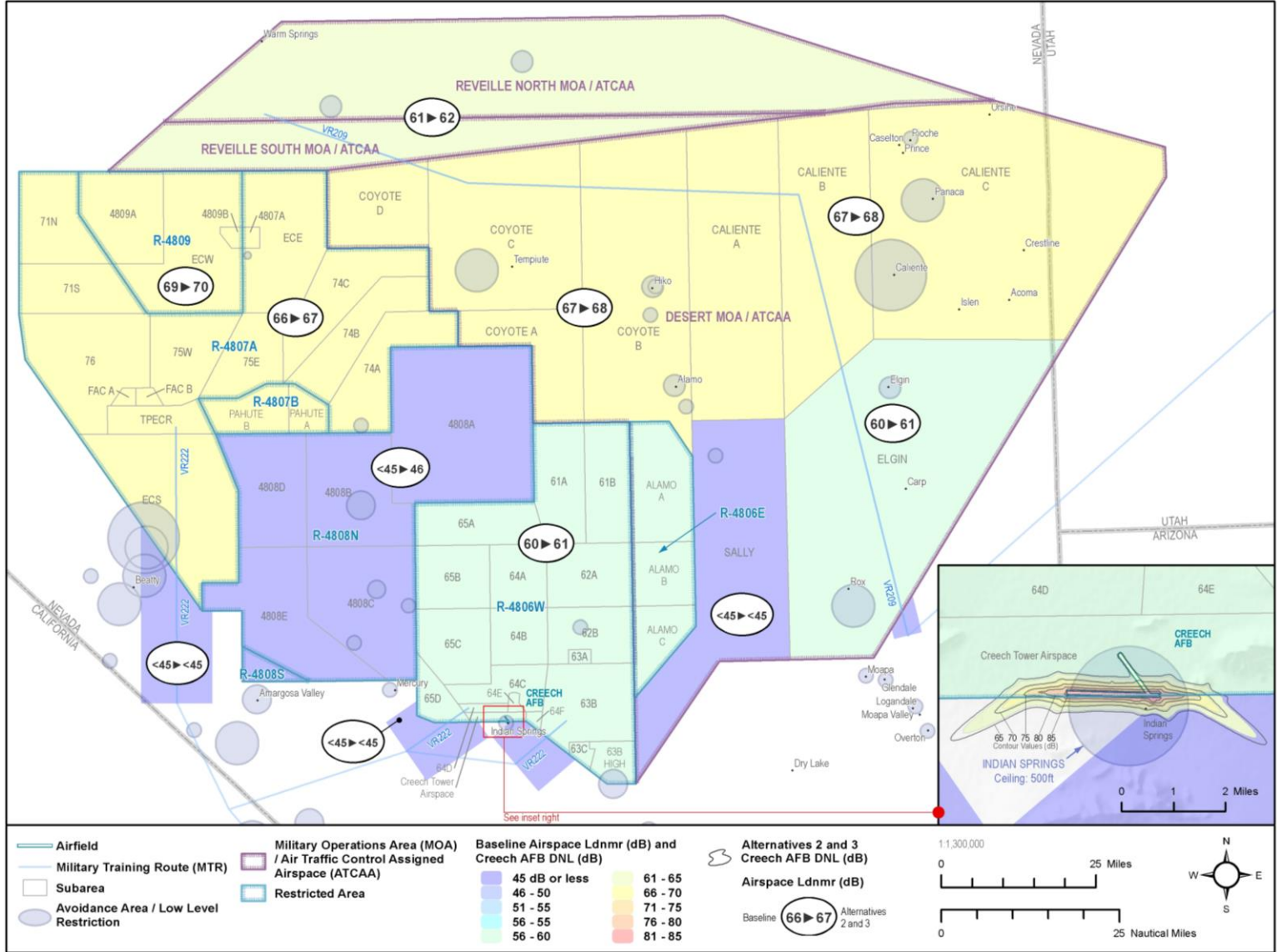


Figure ES-6. Subsonic Noise Exposure Within the NTTR

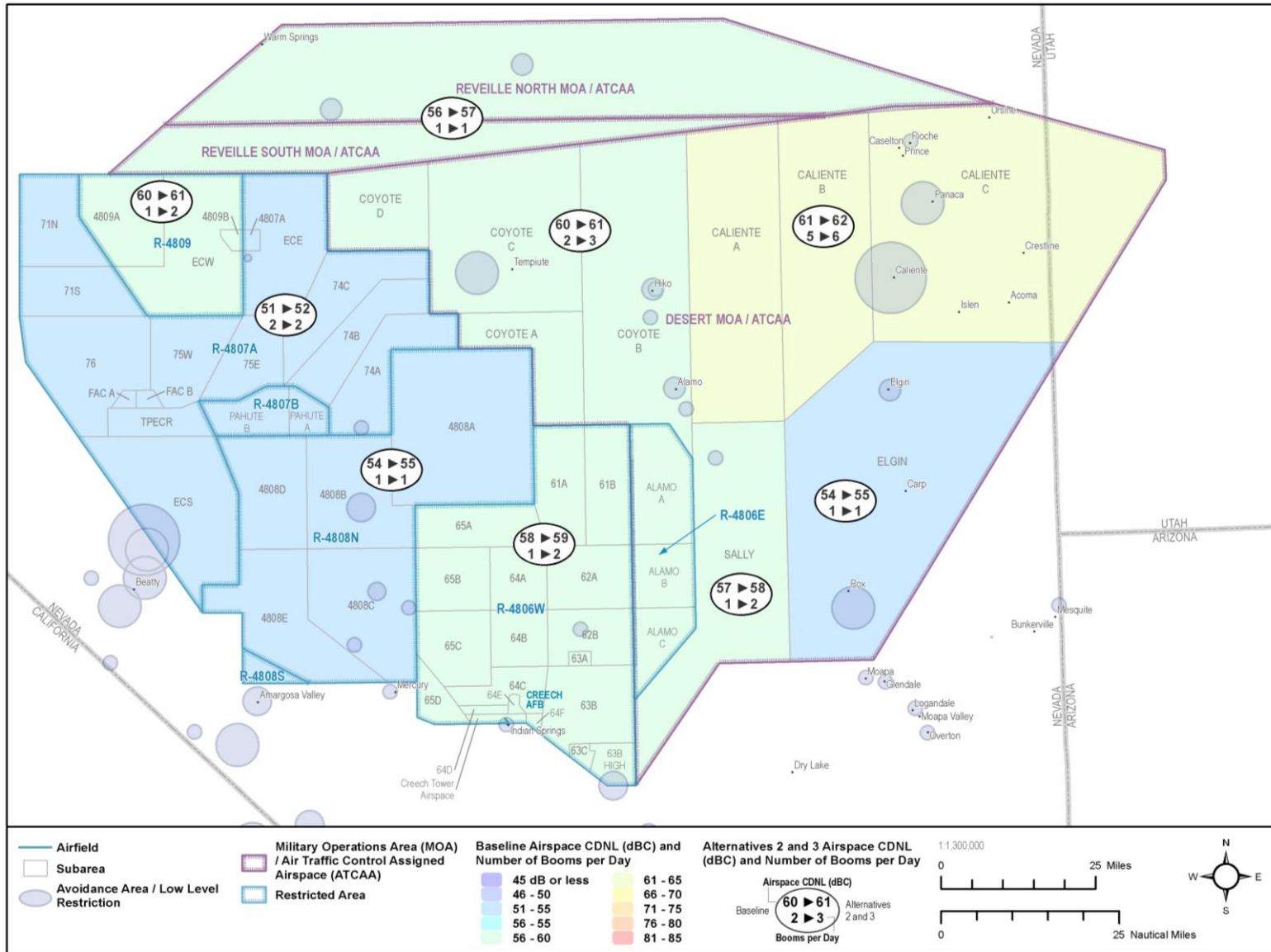


Figure ES-7. Supersonic Noise Exposure Within the NTTR

Refer to Table ES-1 and Table ES-2 for the noise modeling results for Alternatives 2 and 3. There would be no adverse impacts from noise associated with aircraft operations under Alternatives 2, 3A, 3A-1, 3B, and 3C.

Table ES-1. Summary of L_{dnmr} Values for SUAs

SUA Name	Baseline	Alternative 2	Alternative 3
	L _{dnmr} (dBA)	L _{dnmr} (dBA) (Change)	L _{dnmr} (dBA) (Change)
R-4806	60	61 (+1)	61 (+1)
R-4807	66	67 (+1)	67 (+1)
R-4808	<45	46 (+1)	46 (+1)
R-4809	69	70 (+1)	70 (+1)
Caliente	67	68 (+1)	68 (+1)
Coyote	67	68 (+1)	68 (+1)
Elgin	60	61 (+1)	61 (+1)
Reveille	61	62 (+1)	62 (+1)
Sally	<45	<45 (+0)	<45 (+0)
VR-209	<45	<45 (+0)	<45 (+0)
VR-222	<45	<45 (+0)	<45 (+0)

< = less than; dBA = A-weighted decibels; L_{dnmr} = onset-rate adjusted monthly day-night average sound level; SUA = Special Use Airspace

Table ES-2. Summary of Sonic Boom CDNL Values for SUA

SUA Name	Baseline		Alternative 2		Alternative 3	
	CDNL (dBC)	Booms per Day	CDNL (dBC) (Change)	Booms per Day (Change)	CDNL (dBC) (Change)	Booms per Day (Change)
R-4806	58	1	59 (+1)	2 (+1)	59 (+1)	2 (+1)
R-4807	51	2	52 (+1)	2 (+0)	52 (+1)	2 (+0)
R-4808	54	1	55 (+1)	1 (+0)	55 (+1)	1 (+0)
R-4809	60	1	61 (+1)	2 (+1)	61 (+1)	2 (+1)
Caliente	61	5	62 (+1)	6 (+1)	62 (+1)	6 (+1)
Coyote	60	2	61 (+1)	3 (+1)	61 (+1)	3 (+1)
Elgin	54	1	55 (+1)	1 (+0)	55 (+1)	1 (+0)
Reveille	56	1	57 (+1)	1 (+0)	57 (+1)	1 (+0)
Sally	57	1	58 (+1)	2 (+1)	58 (+1)	2 (+1)

CDNL = C-weighted day-night average sound level; dBC = C-weighted decibels; SUA = Special Use Airspace

Under Alternative 2, noise levels associated with large-caliber munitions expenditure would increase by approximately 1 dB. Munitions use would not occur within areas associated with Alternatives 3A, 3A-1, or 3B. Noise levels from munitions use associated with Alternative 3C would be the same as those discussed for Alternative 2. There would be no adverse impacts associated with noise from ground-disturbing activities under Alternatives 2, 3A, 3A-1, 3B, or 3C. Noise associated with ground-disturbing activities would primarily be associated with construction of emitters under Alternative 3C, as shown in Table ES-3. Noise levels resulting from emitter operations for Alternatives 2 and 3C would be the same as those discussed for Alternative 1. Emitter operations would not occur within areas associated with Alternatives 3A, 3A-1, or 3B.

Table ES-3. Construction Noise Level Expected from Each Emitter Pad Construction Site

Distance to Receptor (feet)	L _{max} (dBA)	L ₁₀ (dBA)
100	79.0	82.6
200	73.0	76.6
300	69.4	73.0
400	66.9	70.5
500	65.0	68.6
600	63.4	67.0

dBA = A-weighted decibels; L₁₀ = loudest 10% noise level; L_{max} = maximum noise level

No specific noise impacts are associated with any subalternatives of Alternative 4; impacts would be the same as those described for the other action alternatives, with Alternative 4 defining the timeframe over which those impacts may occur.

Under the No Action Alternative, noise associated with military activities would decrease greatly initially. Over time, appropriative land uses could potentially be reintroduced which could result in noise impacts, but the level of significance cannot be determined at this time.

ES.4.3 AIR QUALITY

As detailed in Section 3.3.1 of the LEIS, the region of influence (ROI) for the air quality analysis includes Clark, Lincoln, and Nye Counties. Section 3.3.2.1 of the LEIS outlines the methodology used for the air quality analysis. Under Alternative 1, operational tempo would continue at baseline levels, which are not considered to result in significant adverse impacts to air quality. For Alternative 2, aircraft operations, vehicle operations, and munitions use were all assumed to increase by approximately 30 percent from those levels stated for Alternative 1. However, increases in criteria pollutant and greenhouse gas (GHG) levels would be minimal and those from construction activities would be temporary, resulting in less than significant impacts to regional air quality. Emissions associated with ground-disturbing activities, vehicle use, and installation of perimeter fencing proposed under Alternatives 3A, 3A-1, and 3B would only result in minimal increases in criteria pollutant and GHG levels. Blank munitions use, emitter operations ground disturbance, vehicle use, and construction activities proposed under Alternative 3C would also minimally increase criteria pollutant and GHG levels. Therefore, no significant adverse impacts to regional air quality under Alternatives 3A, 3A-1, 3B, and 3C are anticipated. Table ES-4 lists the emissions associated with each alternative as it relates to emissions generated. No specific air quality impacts are associated with any subalternatives of Alternative 4; impacts would be the same as those described for the other action alternatives, with Alternative 4 defining the timeframe over which those impacts may occur. Emissions are analyzed on an annual basis, and there are no known or anticipated changes to criteria pollutants or GHG emissions affected by the period of withdrawal. Under the No Action Alternative, criteria pollutant and GHG emissions associated with military activities would decrease greatly initially, and air quality would likely improve overall. Over time, industrial activities such as mining and cleanup activities requiring heavy machinery use could be associated with increased air emissions overall. Further, public use in these areas could also contribute to increased overall air emissions through vehicle operation, firearms use,

and other recreational activities. Air quality impacts may occur under the No Action Alternative, but significance cannot be determined at this time.

Table ES-4. Alternatives Comparison of Emissions

Source	Pollutant (tons/year)						
	CO	NO _x	PM ₁₀	PM _{2.5}	SO _x	VOC	CO ₂ e
Alternative 1 Emissions	823.14	2,464.28	548.47	513.11	122.61	142.55	464,003
Alternative 2 Emissions	322.00	770.36	225.87	155.41	37.15	51.14	149,802
Alternative 3 Emissions	348.49	778.96	293.81	155.73	37.18	53.86	153,388
Total Alternative 1, 2, and 3 Emissions	1,493.63	4,013.61	1,068.16	824.26	196.94	247.55	767,193
Total ROI Baseline	398,567	53,433	69,705	17,576	7,417	501,115	12,179,548
<i>Percent of ROI</i>	<i>0.37%</i>	<i>7.51%</i>	<i>1.53%</i>	<i>4.69%</i>	<i>2.66%</i>	<i>0.05%</i>	<i>6.30%</i>

CO = carbon monoxide; CO₂e = carbon dioxide equivalent; NO_x = nitrogen oxides; PM₁₀ or PM_{2.5} = particulate matter with a diameter less than or equal to 10 or 2.5 microns, respectively; ROI = region of influence; SO₂ = sulfur dioxide; VOC = volatile organic compound

¹ Source: (EPA, 2016c)

ES.4.4 LAND USE, RECREATION, AND VISUAL RESOURCES

Land use generally refers to the management and use of land by people, often for residential or economic purposes. General land use, ownership, and management plans associated with the NTTR ROI are described in Section 3.4.1.3 of the LEIS. Figure ES-9 shows BLM grazing allotments that occur within the proposed withdrawal areas for Alternatives 3A and 3A-1. Recreational resources primarily include outdoor recreational activities that occur away from an individual’s place of residence. Refer to Section 3.4.1.4 of the LEIS for a description of recreation and special use areas considered in the analysis. Figure ES-10 depicts the Nevada Wild Horse Range and herd management areas (HMAs) that occur within the NTTR ROI. Figure ES-11 and Figure ES-12 show recreational resources within the NTTR ROI. Visual resources include both natural and man-made features of the landscape visible from public viewpoints, such as topography, water, vegetation, man-made features, as well as the degree of panoramic views available. Section 3.4.1.5 of the LEIS describes visual resources included in the analysis. The methodology used to assess impacts to these resources is described in Section 3.4.2.1 of the LEIS.

For Alternative 1, land use, recreation, and visual resources on the NTTR would continue as described under current baseline conditions, including implementation of existing land and visual resource management plans.

Land use under Alternative 2 would remain relatively unchanged in the North Range, but would change significantly in the South Range under ready access, to where the areas proposed for wilderness would no longer be managed as wilderness. The Air Force would continue to allow limited bighorn sheep hunting during the currently designated hunting season. Changing land management in the South Range to provide ready access under Alternative 2 would allow for implementation of previously restricted activities, which may significantly depart from the existing visual context of an “untrammled” natural environment free of human modification, as well as introduce new lighting sources that could permanently affect the natural night skies through the creation of light pollution and sky glow.

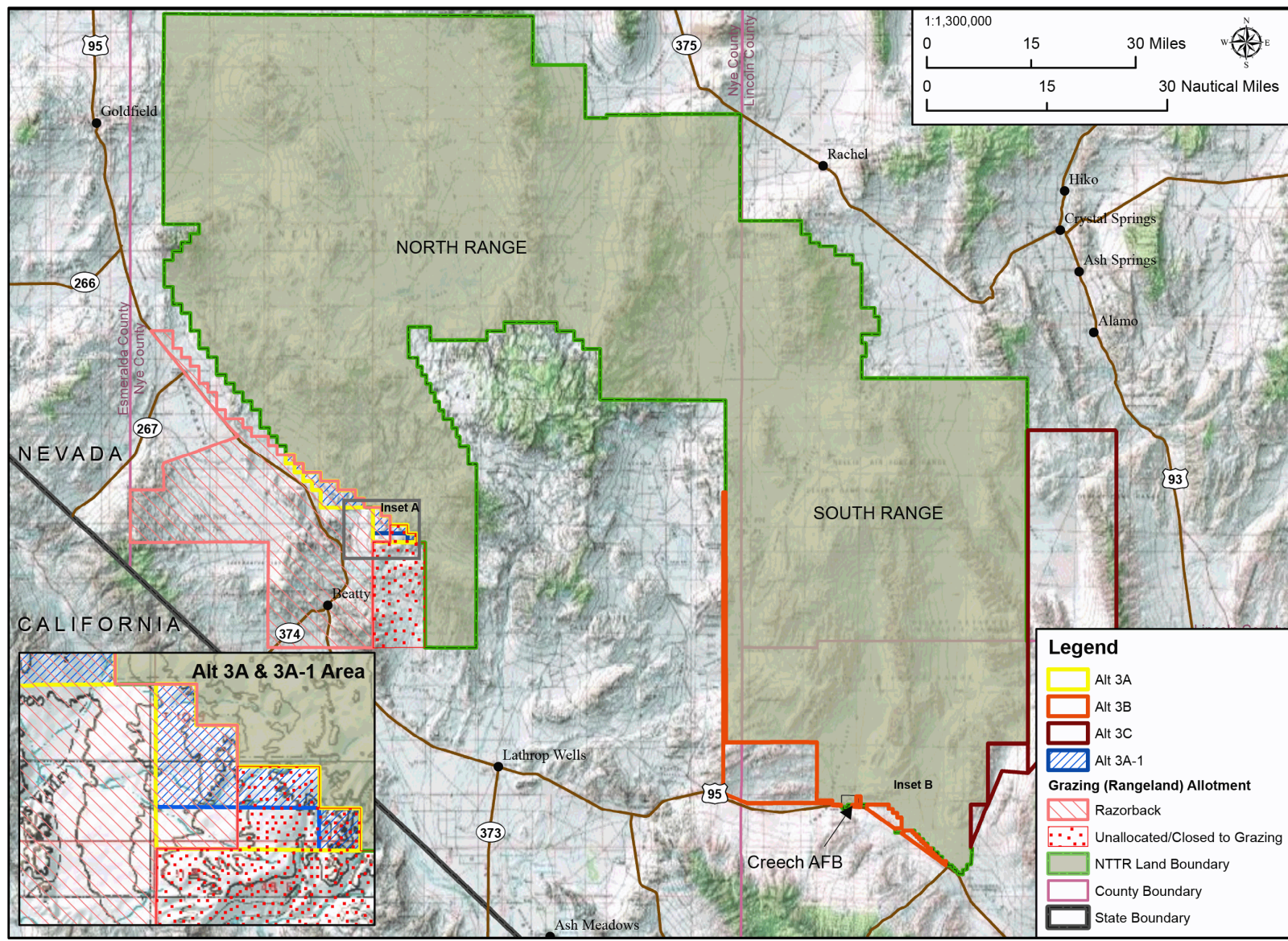


Figure ES-9. BLM Grazing Allotments Within the Range 77 – EC South Withdrawal Area

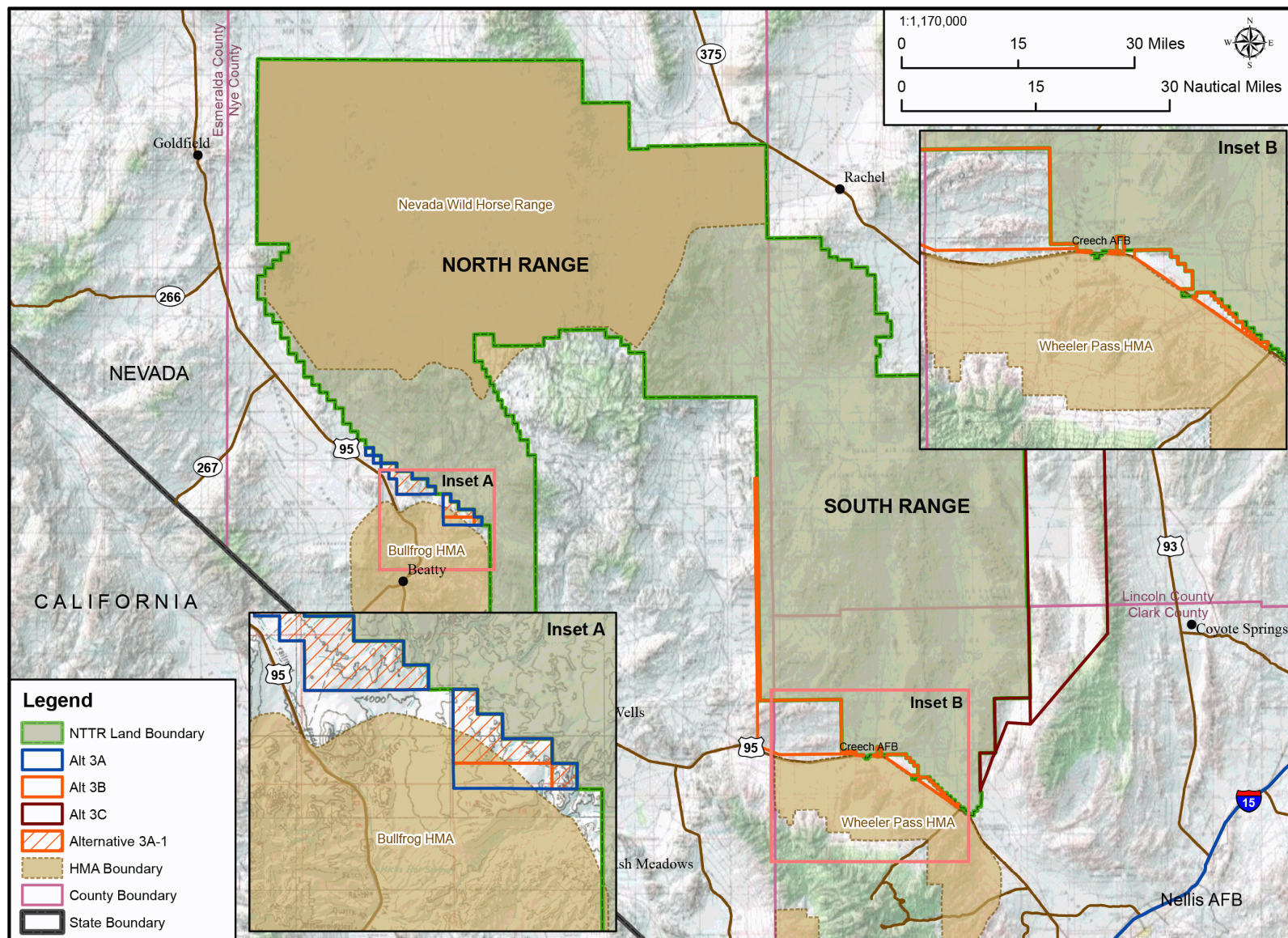


Figure ES-10. Nevada Wild Horse Range and Herd Management Areas

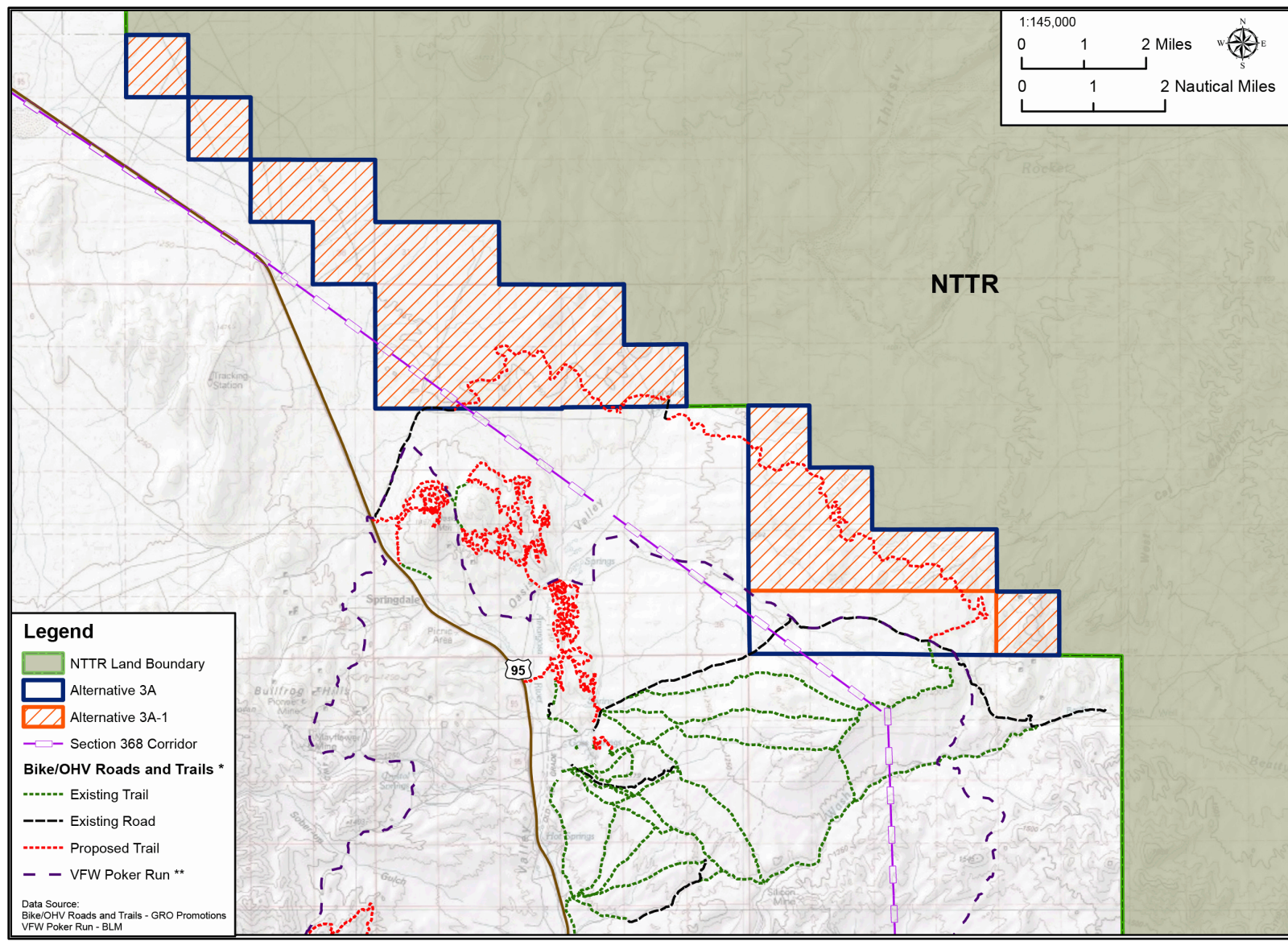


Figure ES-11. Range 77 – EC South Withdrawal Area Bike and OHV Roads and Trails

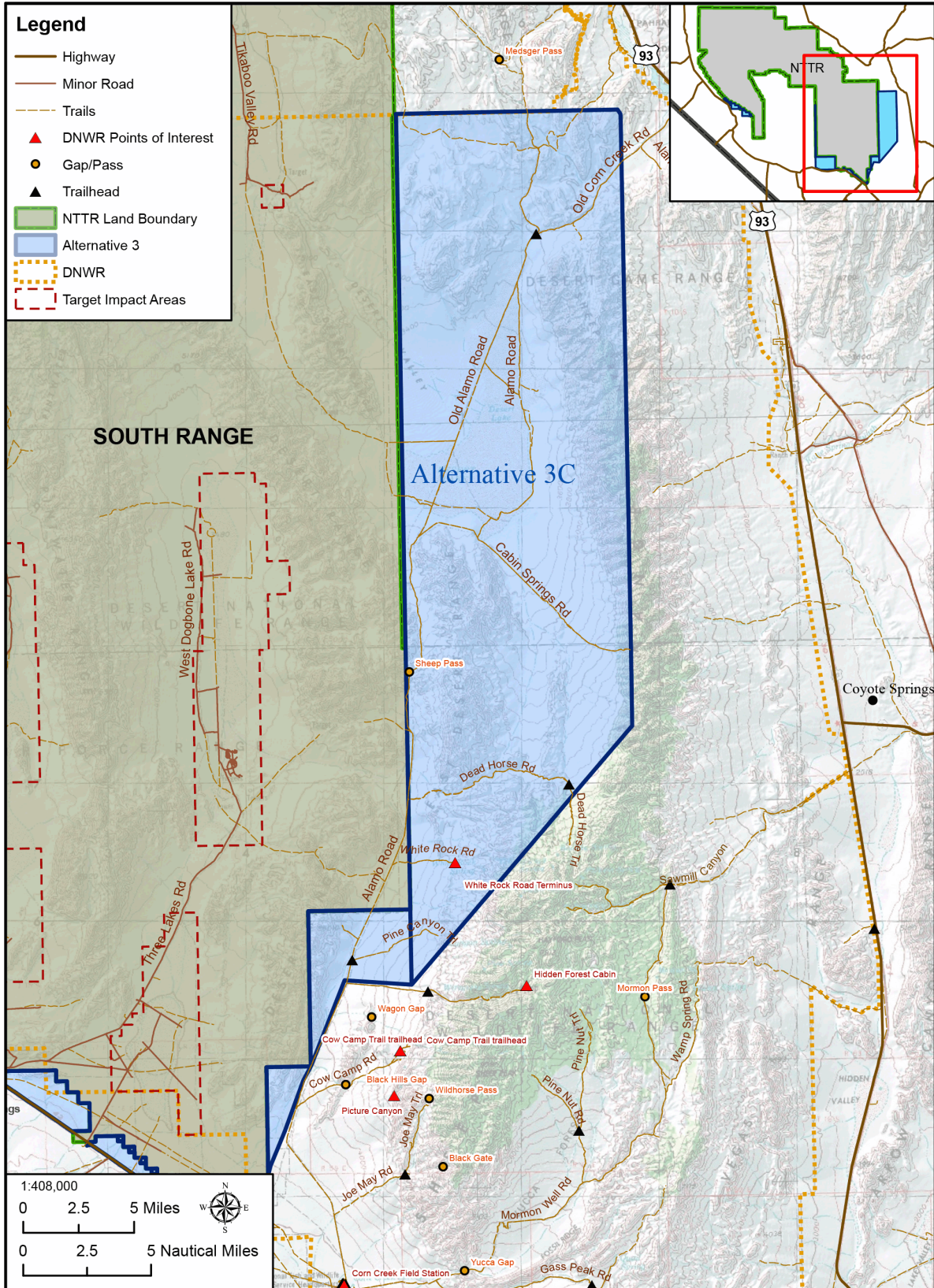


Figure ES-12. Roads, Parking Areas, and Trails Within Alternative 3C Boundary

For Alternative 3A, additional land use impacts would result from restricted access in the proposed expansion area. This would affect one active mining claim and small portions two grazing allotments (one active [Razorback] and one unallocated), and eliminate existing recreational uses (i.e., hiking, biking, and off-highway vehicle [OHV] use) within the area. Hunting is likely to continue to be allowed but it could be temporarily limited during certain military training activities. Impacts to the Bullfrog HMA are not expected but because fencing locations are not known at this time, the Air Force would need to perform site-specific NEPA analysis in those situations where fencing might overlap the HMA. There would be no changes to visual resource management designations. Changes made to prevent access, such as fencing, are consistent with existing management objectives and visual characteristics; therefore, impacts would not substantially increase over baseline conditions. The landscape changes would not introduce new light sources; therefore, impacts to natural night skies would not increase over baseline conditions.

As a result of the reduction in the amount of land area to be withdrawn under Alternative 3A-1, there would be a reduction in the land use and recreation impacts as discussed under Alternative 3A. One active mining claim would be affected. The affected acreage of the unallocated grazing area and Razorback grazing allotment would be reduced by a total of approximately 2,600 acres. Less acreage would also be affected in the Nevada Department of Wildlife hunting unit 253 and the Bullfrog HMA. Alternative 3A-1 would eliminate the impact to an existing 4.2-mile section of the Trails-OV Transvaal Flats Trail System (Windmill Road) and 0.24-mile of the Ridgeline Trail. It would also eliminate the impact to about 4 miles of the road/trail system that is used for OHV activities like the Beatty VFW Bullfrog Poker Run and the Best in the Desert Vegas to Reno off-road race. The potential impacts to visual resources under Alternative 3A-1 would be the same as those discussed under Alternative 3A, as the amount of linear feet required to fence the area would be similar.

For Alternative 3B, additional impacts to land use and recreational use within the proposed expansion area would be limited due to the lack of designated roads and trails. Hunting is likely to continue to be allowed but it could be temporarily limited during certain military training activities. The Air Force would need to perform site-specific NEPA analysis if perimeter fencing would overlap the Wheeler Pass HMA. No changes to visual resource management designations would occur and use would be consistent with existing management objectives; however, minor changes to the landscape as a result of fencing and ground disturbance associated with these activities would create dispersed modification. Therefore, minor impacts to the visual qualities and the visual resources of the area are anticipated. Impacts would not substantially increase over baseline conditions because portions of this area are already characterized by human development. Non-permanent and dispersed light sources may be introduced as part of the infrastructure used in training activities; these light pollution sources could cause a small but temporary increase of adverse impacts to natural night skies over baseline conditions.

Under Alternative 3C, land use impacts could potentially be significant. Existing land use within the affected DNWR area would go from a wildlife management and

recreation area to a military training area. Areas for current recreational activities (e.g., hiking, bird-watching, backpacking, and horseback riding) would become closed to the public for safety and security reasons. Hunting is likely to continue to be allowed but would be limited to times when there are no military training activities occurring. The change in land management as part of this alternative, which includes introduction of previously restricted activities in an otherwise untrammelled landscape, would change the area from “undeveloped” to one with human development and interference. The visual resources management designations and objectives in the proposed expansion area would need to be modified in order to support the new activities. In addition, any development and infrastructure improvements could introduce permanent or persistent light-emitting sources that contribute to light pollution in the region and thus adversely impact natural night skies. Impacts to natural night skies would be worse over areas where persistent and permanent light sources are concentrated.

No specific land use, recreational, or visual impacts would be associated with Alternative 4; impacts would be the same as those described for the other action alternatives, with Alternative 4 defining the timeframe over which those impacts may occur.

Under the No Action Alternative, military activities and land use restrictions would expire and other land uses could potentially be reintroduced into previously restricted areas. The DNWR would withdraw the South Range from mining, and cleanup activities conducted by the Air Force would be localized and short-term. There could also be increased recreational use of the former NTTR lands, but due to past activities and use, certain areas would continue to have restricted access. The conditions on the South Range would be managed in the same manner as those on the east side of the DNWR. Current land use management objectives of BLM lands on the perimeter or the vicinity of the NTTR would continue, and no changes in the land status of these adjacent lands would be expected. The expiration of military activities and subsequent mitigation of contaminated sites would be consistent with the baseline landscape characteristics of the human-modified environment; therefore, no significant impacts are anticipated. Cessation of military activities and removal of the associated infrastructure may have a positive impact on the night skies by eliminating sources of light pollution.

In consideration of any potential for significant impacts to land use, recreation, and visual resources, the Air Force has identified mitigations and/or management actions that would be implemented across all applicable alternatives. These measures are listed in Section 2.9, Mitigation, and Section 3.4.3, Proposed Resource-Specific Mitigations and Management Actions, of the LEIS.

ES.4.5 WILDERNESS AND WILDERNESS STUDY AREAS

Based on the legal definition of Wilderness Area, there are five qualities of wilderness character: untrammelled; natural; undeveloped; solitude or primitive and unconfined recreation; and other features of value. Section 3.5.1.1 in the LEIS defines each of these qualities and identifies the criteria that must be present for an area to be

considered for wilderness designation. Wilderness Areas, Wilderness Study Areas (WSAs) and areas proposed for wilderness (managed as de facto wilderness) within the NTTR ROI are described in Section 3.5.1.3 of the LEIS. Section 3.5.2.1 in the LEIS describes the methodology used to assess impacts to wilderness.

For Alternative 1, no changes to the land boundaries or baseline NTTR operations would occur. No impacts to untrammeled, natural, and undeveloped qualities are anticipated. Solitude or primitive and unconfined recreation quality of Wilderness Areas, WSAs, and areas proposed for wilderness may be adversely impacted from noise associated with aircraft operations, munitions use, and emitter operations. Impacts would not increase over baseline conditions.

Under Alternative 2, ready access may be directed through a Congressionally directed change and would reduce the total area of lands managed as wilderness within the DNWR by 590,000 acres (42 percent). This would include Spotted Range, Desert-Pintwater Range, and portions of Hole-in-the-Rock. However, based on the amount of land remaining that possess wilderness qualities in the region, Alternative 2 would not significantly reduce the opportunity of people to experience wilderness in the region. Impacts to wilderness qualities within Wilderness Areas, remaining areas proposed for wilderness, and WSAs outside the NTTR withdrawal boundaries were considered in the analysis. Similar to Alternative 1, no impacts to untrammeled, natural, and undeveloped qualities are anticipated. Solitude or primitive and unconfined recreation of surrounding areas with wilderness characteristics may be adversely impacted from noise associated with increased aircraft operations, munitions use, and emitter operations. Increased air operations would not substantially increase noise levels; therefore, impacts are not expected to appreciably increase over baseline conditions.

There are no Wilderness Areas, WSAs, or areas proposed for wilderness within or adjacent to the proposed Range 77 expansion area for Alternative 3A or 3A-1; therefore, there would be no impacts to wilderness associated with those alternatives.

For Alternative 3B, about 33,000 acres (2 percent) of areas proposed for wilderness within the DNWR would be impacted by this proposed expansion. When combined with ready access for the entire South Range, approximately 623,000 acres of areas that were proposed for wilderness would no longer be managed as wilderness, which accounts for nearly 45 percent of the entire area that was proposed for wilderness within the DNWR. However, based on the amount of land remaining that possess wilderness qualities in the region, Alternative 3B would not significantly reduce the opportunity to experience wilderness in the region. Impacts to solitude or primitive and unconfined recreation would result from increased levels of aircraft operations and munitions use within the current NTTR (noise associated with the munitions). Impacts would not appreciably increase over baseline conditions. Ground disturbance activities associated with perimeter fencing would impact the undeveloped quality of remaining areas proposed for wilderness outside the NTTR boundary; however, impacts would not substantially increase over baseline conditions because portions of this area have already been shown to be disturbed.

For Alternative 3C, approximately 227,000 acres (16 percent) of areas proposed for wilderness within the DNWR would be impacted by this proposed expansion. When combined with ready access for the entire South Range, approximately 817,000 acres of areas proposed for wilderness would no longer be managed as wilderness, which accounts for approximately 58 percent of the total area proposed for wilderness within the DNWR. However, based on the amount of land remaining that possess wilderness qualities in the region, Alternative 3C would not significantly reduce the opportunity to experience wilderness in the region. Impacts to solitude or primitive and unconfined recreation in surrounding Wilderness Areas, areas proposed for wilderness, and WSAs would result from increased levels of aircraft operations, munitions use (associated noise), and emitter operations. Noise levels would only marginally increase; therefore, impacts would not substantially increase over baseline conditions. Munitions use and emitter operations would impose access restrictions within the Alamo areas, reducing recreation opportunities there. Ground disturbance activities associated with perimeter fencing and additional infrastructure would adversely impact the undeveloped quality of remaining areas proposed for wilderness outside the NTTR boundary.

Impacts to areas proposed for wilderness from the withdrawal periods proposed under Alternative 4 are dependent on the combination of alternatives selected. Selection of Alternative 1 would not result in any changes to the management of areas proposed for wilderness in the South Range. In this scenario, the length of the withdrawal period may result in an improvement of wilderness characteristics in areas proposed for wilderness. Selection of Alternative 3A or 3A-1 would not affect wilderness. Selection and implementation of Alternative 2, Alternative 3B, and/or Alternative 3C would reduce the total area managed as wilderness in southern Nevada. Under those alternatives, the length of the withdrawal period is not relevant, because wilderness characteristics would no longer need to be considered. As a result, there would be no impacts to wilderness for Alternative 4A, 4B, or 4C if Alternative 2, 3A, 3A-1, 3B, or 3C is selected. Wilderness Areas, WSAs, and areas proposed for wilderness outside the NTTR boundaries would continue to experience impacts to solitude qualities from noise associated with military activities, but other wilderness qualities would not be impacted. Continued management practices of Wilderness Areas, WSAs, and areas proposed for wilderness outside the NTTR would conserve and improve wilderness qualities over the various time periods proposed for Alternatives 4A, 4B, and 4C.

Under the No Action Alternative, the absence of ground military operations at NTTR would allow for other land uses to be reintroduced to these areas, such as mining, livestock grazing, or mineral leasing. The land areas would also be subject to BLM and USFWS management objectives, which would likely improve wilderness characteristics of areas proposed for wilderness in the former South Range. Additionally, without military control of ground areas, air operation would decrease and noise impacts that affect solitude or primitive and unconfined recreation would be reduced.

ES.4.6 SOCIOECONOMICS

Socioeconomics refers to features or characteristics of the social and economic environment. Sections 3.6.1.3 through 3.6.1.8, as well as Appendix G, of the LEIS describe the economics, land use and ownership, population, housing, public services and facilities, and public finance associated with Clark, Lincoln, and Nye Counties, where the majority of impacts would be anticipated to occur.

Under Alternative 1, the total economic impact of the Nellis AFB, Creech AFB, and NTTR activities was estimated at \$5.549 billion during 2015. The Nellis AFB Economic Impact Assessment model estimates that the number of indirect and induced jobs was 5,783 for 2015 with a total indirect/induced payroll of \$242.6 million. Continuing the current land withdrawal and training activities would have no further impact on the region than the baseline economic impact.

For Alternative 2, the estimated economic increase associated with lodging and per diem for temporary-duty personnel associated with a 30 percent increase in aircraft operations would be approximately \$67 million per year, primarily in Clark County.

The withdrawal of the additional acreage under Alternative 3A may have a potential impact on the Payment in Lieu of Taxes (PILT) for Nye County of approximately \$6,400. The current recreational uses of the land along with any agricultural activities such as grazing that may be taking place on those lands would likely be eliminated or available to the public on a limited basis or through specific agreements (in cases such as grazing rights). Certain recreational uses, particularly near the NTTR boundary towards the town of Beatty, Nevada, including 4.88 miles of proposed bike trails and potentially portions of off-road racing routes, may be impacted depending on the routes, which vary between years. Additional expenditures from the new training configurations potentially could offset some of the resulting economic losses. The BLM Razorback grazing allotment, which would be impacted by Alternative 3A, consists of 266,329 acres and has an allotment of 1,926 animal unit months (AUM¹). Currently, there are 386 AUM suspended. Assuming uniform forage production within the allotment, an 18,000-acre reduction in the allotment due to Alternative 3A would be 6 percent or \$128,000. However, it should be noted that this would be an 83 percent reduction in available grazing area to the rancher leasing the AUM and would be a significant impact. The Air Force plans to work directly with the rancher to address this impact. In addition, to minimize potential conflicts between NTTR operations and population, housing, and economic activity in the region (to include grazing and mining), the Air Force would continue coordination between the military and local and regional planning departments.

Energy Corridor 18-224 would be impacted by Alternative 3A in the northern land area. This may be mitigated through coordination with NTTR to gain access or by construction of the proposed boundary fence along the eastern boundary of energy Corridor 18-224 within the proposed safety buffer area. BLM is in the process of revising

¹ The AUM provides sufficient forage for one cow and calf for a month.

their resource management plan, at which time energy corridor revisions would be considered.

Impacts under Alternative 3A-1 would be similar to those stated under Alternative 3A. As a result in the reduction of land area that would be withdrawn (2,592 acres) under Alternative 3A-1, there would be an estimated reduction of approximately \$5,500 in PILT allocation to Nye County. One of the new proposed bike trails being developed in the Beatty, Nevada, area would be impacted by the proposed expansion under Alternative 3A-1. However, the Best in The Desert's Vegas to Reno race route would no longer be impacted. Alternative 3A-1 would overlap areas of grazing allotments and reduce grazing in Nye County by about 15,000 acres. The BLM Razorback grazing allotment would also be impacted by Alternative 3A-1; however, the allotment capacity reduction and potential economic impact would be approximately the same as Alternative 3A. Energy Corridor 18-224 would be impacted by Alternative 3A-1 in the northern land area. This may be mitigated through coordination with NTTR to gain access or by construction of the proposed boundary fence along the eastern boundary of energy Corridor 18-224 within the proposed safety buffer area.

For Alternative 3B, the withdrawal of the additional acreage may have a potential impact on the PILT for Nye County of \$3,600. There are approximately 26,000 acres of BLM-managed lands that are included in Alternative 3B that could be used for hiking and recreational activities. Loss of this area would have a value of approximately \$228,020.

Energy Corridor 223-224 lies within the southern portion of the Alternative 3B expansion area. Federally designated portions of this corridor are on BLM-administered land, and the BLM is currently processing a land use plan revision. In addition, a Renewable Energy Transmission Corridor, established pursuant to Section 3092(a)(4) of the *National Defense Authorization Act for Fiscal Year 2015* (P.L. 113-291), and a locally designated transportation and utility corridor labeled US95-Crater Flat, are located adjacent to and south of Alternative 3B. In September 2016, stakeholder and industry input indicated that energy Corridor 223-224 was a jurisdictional concern and recommended moving the corridor south of U.S. Route 95. Shifting of the energy corridor out of the impacted area may be possible, but would have to be assessed for its environmental aspects at that time. BLM is in the process of revising their resource management plan, at which time energy corridor revisions would be considered. Any modifications to the legislatively designated Renewable Energy Transmission Corridor may only occur by Congressional action.

For Alternative 3C, current recreational uses of the land would likely be eliminated or available to the public on a limited basis or through specific agreements. The estimated recreational-use economic impact would be \$1,990,780 under Alternative 3C. Additional expenditures from the new training configurations potentially could offset some of the resulting economic losses.

With each time period proposed under Alternative 4, it is assumed that economic indicators would increase at the national average of 2.2 percent annually, which has been the national average based on the last 17 years. Alternative 2 combined with

Alternative 4 would likely include increased annual expenditures associated with the increased NTTR use and continue to provide economic stimulus throughout the region.

The No Action Alternative would result in the removal of Air Force and DOE/NNSA activities from the NTTR. The initial impact would be a \$500.8 million reduction in economic impact, including a \$138 million reduction in payroll, a \$340 million reduction in expenditures, and a \$21 million reduction due to the loss of jobs. The removal of all facilities and buildings from the NTTR and Creech AFB is estimated to cost \$213 million. Secondly, the cost for full decontamination of the NTTR is estimated at about \$2.5 billion. These actions would delay opening some of the NTTR land to public use by up to 18 years, particularly land where decontamination is necessary. The replacement costs of facilities on the NTTR are estimated at \$122 million and \$1.1 billion at Creech AFB. A new range location may also require moving the aggressor squadrons and facilities from Nellis AFB to the new location. The acres in Nye County eligible for PILT payments would increase, at 2016 rates, an estimated \$682,000 to the Nye County PILT payments. Clark and Lincoln County payments are estimated with population limitations and would not necessarily experience such direct impacts on the magnitude of their PILT payments.

ES.4.7 ENVIRONMENTAL JUSTICE

Section 3.7.1 of the LEIS defines environmental justice as it pertains to the analysis, and Section 3.7.2.1 describes the methodology used to assess environmental justice impacts.

For Alternative 1, aircraft, operations, munitions use, ground disturbance, and emitter operations would continue as described under baseline conditions. No disproportionately high and adverse impacts to environmental justice communities and no disproportionately high and adverse environmental health and safety impacts to children are anticipated under this alternative.

For Alternative 2, six census tracts and the associated environmental justice and youth/elderly populations residing under the Caliente and Coyote Special Use Airspaces (SUAs) that are currently exposed to 65- to 69-dB day-night average sound level (DNL) associated with subsonic aircraft noise would continue to be exposed to this range of noise. Figure ES-13 shows environmental justice communities of concern potentially exposed to supersonic booms under Alternative 2. Munitions use would continue as under existing conditions and noise levels of 62 C-weighted DNL (CDNL) outside of the NTTR boundary would not extend into populated areas. No adverse significant noise or safety impacts associated with ground disturbance, munition use, and emitter operations have been identified that would impact the public. Therefore, no disproportionately high and adverse impacts to environmental justice communities or disproportionately high and adverse environmental health and safety impacts to children would be anticipated under this alternative.

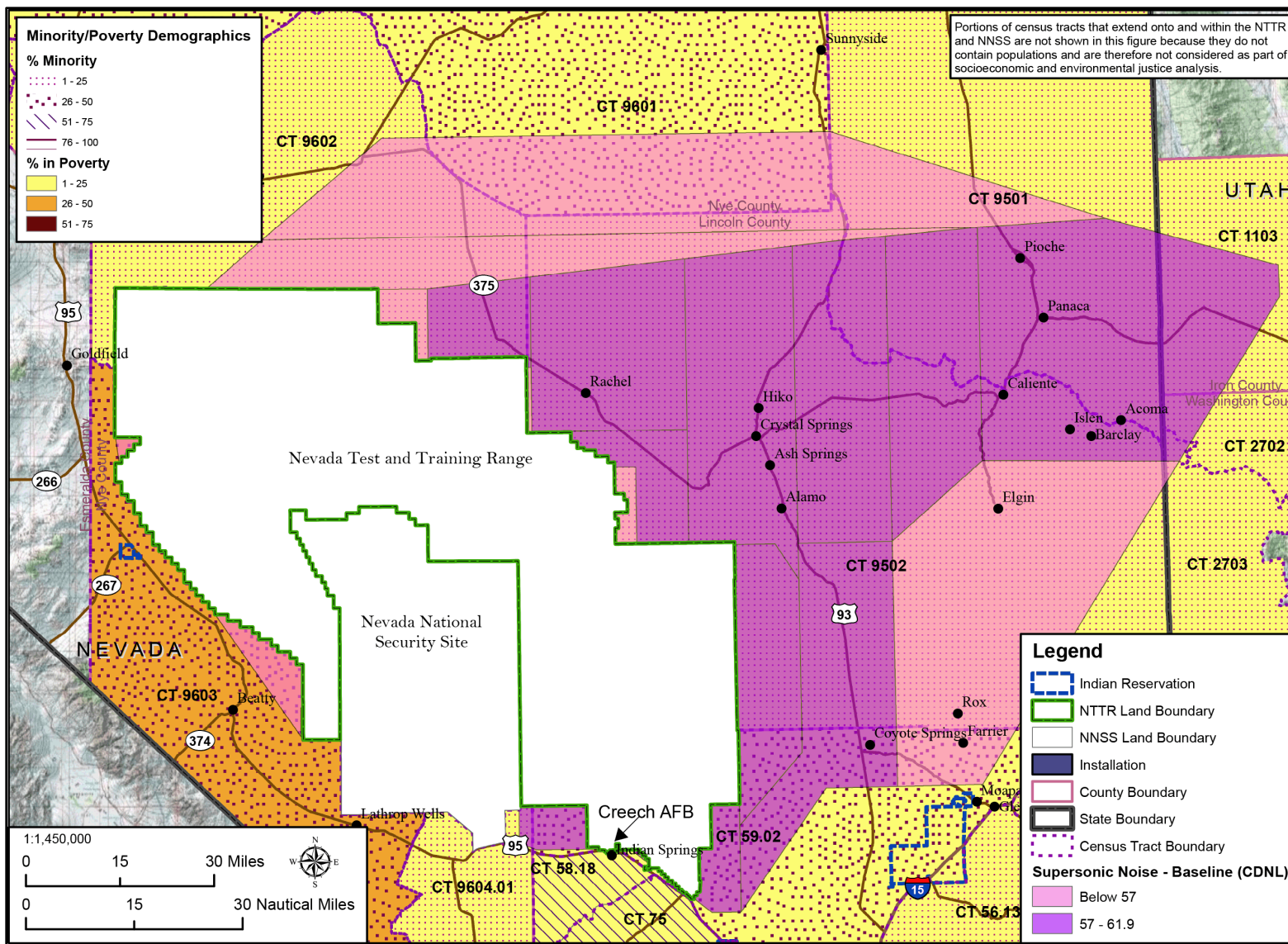


Figure ES-13. Environmental Justice Communities of Concern Exposed to Supersonic Boom Noise Under Alternatives 2 and 3

For Alternatives 3A, 3A-1, 3B, and 3C, the potential impacts to environmental justice and youth and elderly populations resulting from supersonic and subsonic aircraft noise, as well as munitions use, would be similar to those described for Alternative 2. Refer to Figure ES-13 for environmental justice communities of concern potentially exposed to noise associated with supersonic booms under Alternative 3. No ground disturbance activities that would impact the public or emitter operations would occur within Alternative 3A, 3A-1, or 3B's proposed expansion areas. Therefore, no disproportionately high and adverse impacts to environmental justice communities or disproportionately high and adverse environmental health and safety impacts to children from ground disturbance or emitter operations would be anticipated with these proposed expansion areas.

Under Alternative 3C, no adverse noise or safety impacts associated with ground disturbance have been identified that would impact the public (see LEIS Section 3.2, Noise, and LEIS Section 3.13, Health and Safety), and there would be no ground disturbance performed on or in close proximity to cultural or historical sites or other noise-sensitive areas. Additionally, no adverse noise or safety impacts associated with potential emitter operations have been identified that would impact the public (see LEIS Section 3.2, Noise, and LEIS Section 3.13, Safety). Therefore, no disproportionately high and adverse impacts to environmental justice communities or disproportionately high and adverse environmental health and safety impacts to children from ground disturbance or emitter operations would be anticipated with Alternative 3C.

There are no specific environmental justice impacts associated with Alternative 4, except to provide a period of time during which impacts from other chosen alternatives may occur.

Activities associated with the NTTR are an important economic contributor, and under the No Action Alternative there would be a loss of employment, income, and expenditures throughout the three counties. Adverse socioeconomic impacts would affect the general public and would not impact only minority, low-income, youth, and elderly populations. Therefore, no disproportionate impacts to environmental justice populations are anticipated under this alternative.

ES.4.8 BIOLOGICAL RESOURCES

Biological resources include vegetation and wildlife species and their associated habitats, aquatic and wetland habitats, special status species and habitats, and federally listed species. These categories are described in detail in Sections 3.8.1.3 through 3.8.1.6 of the LEIS. Section 3.8.1.7 of the LEIS outlines specific management guidelines for biological resources that are typically implemented prior to any proposed action. These management practices are ongoing as part of the NTTR natural resources management program and will continue to be periodically reviewed and revised, as well as implemented, to ensure management of the NTTR meets the goals and objectives of the military mission, which includes maintaining ecosystem integrity

through good stewardship and protecting existing biodiversity during any military planning or activities.

Under Alternative 1, there would be no changes to air operations or existing airspace, and no changes in land area or baseline NTTR uses are anticipated. Wildlife may be adversely impacted from noise associated with aircraft operations, munitions, and emitter operations, but impacts would not increase over baseline conditions. Vegetation would not likely be affected by electromagnetic radiation associated with emitters. Therefore, impacts to biological resources would remain less than significant. Impacts associated with the continued withdrawal of the NTTR could be beneficial to biological resources as the lands would continue to be managed by the Air Force under the Sikes Act. Environmental review (NEPA analysis) and planning would be required prior to any future construction or ground clearing, which would avoid or reduce impacts to biological resources to neutral or less than significant.

Aircraft operations would increase under Alternative 2; however, impacts to biological resources (e.g., wildlife) from noise and aircraft strikes are not expected to appreciably increase over baseline conditions. Increased potential for direct impacts to biological resources could occur from an associated increase in use of existing target areas; construction and maintenance of new facilities, targets, or roads; placement of threat emitters; and increased ground training (including access by vehicles and personnel). Increased potential for indirect impacts could occur from soil contamination and subsequent cleanup of target impact areas; accidents such as fuel spills or fire; or non-native species invasion in areas previously inaccessible for military training. However, impacts would likely be site-specific, represent a small portion of the area within the NTTR, and be reduced through proper planning, monitoring, and maintenance. Impacts associated with potential increases in military training within the areas that were proposed for wilderness in the NTTR South Range currently managed as wilderness could be avoided or minimized through proper planning, monitoring, and maintenance, as under current Air Force management practices. Additionally, environmental review and planning would be required prior to any future construction or ground clearing, which would avoid or reduce impacts to biological resources to neutral or less than significant.

For Alternative 3A, impacts to biological resources (e.g., wildlife) from noise and aircraft strikes would be less than significant. No military ground operations are proposed in this area, as the area would be used as a safety buffer. The additional land would be managed the same as the existing NTTR withdrawn lands under current Air Force management practices. Environmental review and planning would be required prior to any future construction or ground clearing, which would avoid or reduce impacts to biological resources to neutral or less than significant. Perimeter fencing along the 25-mile boundary has the potential to impact biological resources by removing native vegetation or special status plant species, fragmenting wildlife habitat, creating barriers for wildlife movement, causing injury to large mammals that run into or get caught in the fence, increasing threats due to predation from supplemental perches via fencing, damming or altering streams, or creating corridors for weed dispersion. The level of impacts to biological resources from fencing may be adverse but could be avoided or

minimized depending on the biological resources affected and implementation of associated mitigation measures. A fence maintenance and monitoring plan that includes appropriate fence design for wildlife in the area and no fencing in mountainous areas would further avoid or reduce impacts.

Potential impacts to biological resources from Alternative 3A-1 would be similar to Alternative 3A. Impacts associated with the withdrawal of 15,314 acres (2,592 acres less than Alternative 3A) in the proposed EC South withdrawal area could be beneficial (an additional 15,314 acres of land would be excluded from other uses) or adverse (should construction or clearing of lands be proposed at a future date), but are likely to be low intensity and thus neutral or less than significant. Perimeter fencing along the boundary has the potential to impact biological resources, with the level of impacts (i.e., impacts remain adverse and significant or reduced to less than significant) dependent on the biological resources directly or indirectly affected by the installation, monitoring, and maintenance of the fencing and whether mitigation measures can reduce those impacts.

Under Alternative 3B, impacts to biological resources (e.g., wildlife) from noise and aircraft strikes would be less than significant. The additional land would be managed under the same management practices that the Air Force employs on the existing NTTR. Environmental review and planning would be required prior to any future construction or ground clearing, which would avoid or reduce impacts to biological resources to neutral or less than significant. There would be no munitions use in this area, as it would serve as a safety buffer for live weapons deployment on the interior of the South Range and may include potential impacts due to mishaps from live weapon deployment. An emitter may be placed here, which would impact biological resources from installation of a 0.5-acre pad, road construction, and disturbance. Perimeter fencing along the 30-mile boundary has the potential to impact biological resources by removing native vegetation or special status plant species, fragmenting wildlife habitat, creating barriers for wildlife movement, causing injury to large mammals that run into or get caught in the fence, increasing threats due to predation from supplemental perches via fencing, damming or altering streams, or creating corridors for weed dispersion. Fencing impacts could be avoided or minimized depending on the biological resources affected and implementation of associated mitigation measures as described under Alternative 3A.

The additional land included in the proposed Alternative 3C expansion would be managed the same as the existing NTTR withdrawn lands under current Air Force management practices. Environmental review and planning would be required prior to any construction or ground clearing, should this be proposed at a future date, which would avoid or reduce impacts to biological resources to neutral or less than significant. Military ground operations are proposed in this area and include development of insertion points, emitter sites, and two runways, which have the potential to impact biological resources. Installation of 0.5-acre pads, generators running, road construction and maintenance of 15 half-acre pads would fracture contiguous habitat. However, impacts would likely be site-specific, represent a small portion of the area within the Alternative 3C area, and be avoided or reduced through proper planning, monitoring,

and maintenance. No adverse impacts are anticipated from emitter use. Perimeter fencing along the 60-mile boundary has the potential to impact biological resources by removing native vegetation or special status plant species, fragmenting wildlife habitat, creating barriers for wildlife movement, causing injury to large mammals that run into or get caught in the fence, damming or altering streams, or creating corridors for weed dispersion. The level of impact to biological resources from fencing may be adverse but avoided or minimized depending on the biological resources affected and implementation of associated mitigation measures. The proposed expansion of the existing withdrawal boundaries associated with Alternative 3C would introduce military activities to the Alamo areas. These activities may result in impacts to vegetation, wildlife, aquatic and wetland habitats, and special status species in this region. However, implementation of mitigations and current management practices carried over to new lands would serve to minimize potential impacts. The proposed withdrawal periods associated with Alternative 4 must be implemented in conjunction with one or more of the other alternatives or subalternatives. The Air Force recognizes that it is difficult to determine significance at the programmatic level for withdrawal periods and recognizes that there is the potential for impacts to biological resources over time due to mission changes, development pressures both within and outside the NTTR, and other unforeseen events that cannot at this time be quantified to provide any meaningful analysis. As a result, ongoing planning, and adaptive management, regulatory compliance, and future NEPA analysis as required for any future actions would assess and evaluate potential impacts over any period of withdrawal.

Under the No Action Alternative, land use restrictions placed on the military withdrawn lands within the NTTR would expire. Access to the DNWR would be under the jurisdiction of the USFWS and would be managed to preserve desert bighorn sheep and other wildlife uses. Access to all other lands would be under the jurisdiction of the BLM and may eventually be opened for appropriate land uses (such as mining, geothermal leasing, or livestock grazing) after new management planning under FLPMA and NEPA regulations could be completed.

In consideration of any potential for significant impacts to biological resources, the Air Force has identified mitigations and/or management actions that would be implemented across all applicable alternatives. These measures are listed in Section 2.9, Mitigation, Section 3.8.3, Proposed Resource-Specific Mitigations and Management Actions, and Appendix H, Biological Resources, of the LEIS.

ES.4.9 CULTURAL RESOURCES

Cultural resources were analyzed in the LEIS by assessing each resource's National Register of Historic Places eligibility and condition, then evaluating the resource as it overlaps with the area of potential effects (APE). Sections 3.9.1.3 and 3.9.1.4 of the LEIS describe the cultural resources and archaeological resources that occur within the NTTR APE. Section 3.9.2.1 of the LEIS describes the regulatory *National Historic Preservation Act* (NHPA) Section 106 compliance process. For all alternatives analyzed

in the LEIS, if an inadvertent discovery of cultural resources or human remains occurs during any activity, procedures described for Alternative 1 and set forth in the Nellis AFB Integrated Cultural Resources Management Plan (ICRMP) and Air Force Instruction (AFI) 32-7065 would be implemented. Additionally, under AFI 32-7065, inadvertent discoveries of Native American cultural items require installations to comply with the *Native American Graves Protection and Repatriation Act* and 43 CFR 10, *Native American Graves Protection and Repatriation Act Regulations*. Furthermore, any new or proposed activities would be subjected to the Air Force's environmental impact analysis process and Section 106 of the NHPA prior to implementation.

For Alternative 1, there would be no additional impacts beyond currently approved activities because they are currently covered by standard operating procedures in the Nellis AFB ICRMP. No adverse effects to cultural resources within the context of the NHPA would be anticipated under Alternative 1.

Alternative 2 would have the same footprint as discussed for Alternative 1, but would include a 30 percent increase in operations. However, impacts to cultural resources from air operations with Alternative 2 would be similar to those discussed under Alternative 1. The potential for aircraft mishaps (crashes) or an off-target munition to directly impact cultural resources exists but is highly unlikely. With the implementation of avoidance areas around specific traditional cultural properties and sacred sites and scheduling of mission activities around tribal events, no adverse effects to cultural resources would be anticipated from aircraft operations. Ready access for the South Range would result in increased potential for impacts to culturally sensitive resources as the Air Force expands military activities in these areas. However, the actual impacts to cultural resources from ground disturbance, emitter operations, and munitions use would be the same as discussed under Alternative 1, and culturally sensitive areas would be avoided to the extent practicable. No adverse effects to cultural resources within the context of the NHPA would be anticipated from aircraft operations, munitions use, or other ground-disturbing activities.

Under Alternatives 3A, 3A-1, 3B, and 3C, aircraft operations were assumed to increase by 30 percent and would likely have no direct impact on physical cultural resources; however, impacts would be similar to those described for Alternative 2. The potential for aircraft mishaps (crashes) or an off-target munition to directly impact cultural resources exists but is highly unlikely. With the implementation of avoidance areas around specific traditional cultural properties and sacred sites and scheduling of mission activities around tribal events, no adverse effects to cultural resources would be anticipated from aircraft operations for Alternatives 3A, 3A-1, 3B, and 3C.

No munitions use would occur in the proposed expansion areas for Alternatives 3A, 3A-1, and 3B, and as such, munitions use would have no effect on cultural resources with these subalternatives. Munitions use for Alternative 3C would include blanks, smoke grenades, and hand flares, among others. It is not anticipated that these activities would have an impact on cultural resources. Therefore, munitions use would have no impact on cultural resources within the proposed expansion areas for Alternatives 3A, 3A-1, 3B, and 3C. Under Alternatives 3A, 3A-1, 3B, and 3C, the Air

Force would provide active management to cultural sites throughout the areas included in Alternative 3 as a whole. In addition, public access to these areas would be restricted other than the limited access allowed under current Air Force procedures. It is anticipated that the Air Force's active management and the limitation of unfettered access would reflect limited direct impacts to cultural resources through the implementation of the Air Force's ICRMP and restriction of traffic through the area, preventing intentional or accidental damage to resources.

Under Alternative 3C, ground disturbance associated with troop movements, emitter placement, runway construction, and fencing installation would occur. This area would fall under the management requirements of the Nellis AFB ICRMP, and known culturally sensitive areas would be avoided to the extent practicable.

The proposed withdrawal periods associated with Alternative 4 must be implemented in conjunction with one or more of the other alternatives or subalternatives. Although there would be benefits to limiting the public's direct access to cultural resources, the Air Force acknowledges that it is difficult to determine significance at the programmatic level for long-term withdrawal periods and recognizes that there is the potential for impacts to cultural resources over time due to mission changes, development pressures both within and outside the NTTR, and other unforeseen events that cannot at this time be quantified to provide any meaningful analysis. As a result, ongoing planning, and adaptive management, regulatory compliance, and future NEPA analysis as required for any future actions would assess and evaluate potential impacts over any period of withdrawal.

Under the No Action Alternative, much of the approximately 2.9 million acres currently closed to the public would potentially be open to use under BLM and USFWS administration. The potential for the public to interact with known cultural resources, traditional properties, or cultural landscapes would increase. Currently protected tribal resources could potentially be unprotected and open to potential damage from looting or vandalism. Appropriate environmental documentation and safeguards would be the responsibility of the permitting federal agency, which in this case would be the BLM and USFWS.

In consideration of any potential for significant impacts to cultural resources, and when considering the context of conducting activities on the NTTR, allowing ready access within the South Range, utilizing previously unused expansion areas to support military activities, the programmatic analysis, and public, tribal and agency comments, the Air Force has identified mitigations and/or management actions that would be implemented across all applicable alternatives. These measures are listed in Section 2.9, Mitigation, and Section 3.9.3, Proposed Resource-Specific Mitigations and Management Actions, of the LEIS. Mitigations are also discussed in the NTTR ICRMP.

ES.4.10 EARTH RESOURCES

Earth resources include geologic resources, soil, minerals, tectonic features, landforms, and paleontological resources located within the study area, any of which can have

scientific, economic, and recreational value. Sections 3.10.1.3 through 3.10.1.6 of the LEIS describe the geology, soils, mineral resources, and paleontological resources that occur within the NTTR. The analysis focuses on potential economic, physical, and chemical damage to geology, paleontology, mineral resources, and soils.

For Alternative 1, missions would occur in previously approved areas; therefore, aircraft operations, and munitions use, and ground-disturbing activities would have no significant impact on soils, paleontological, or geologic resources within the existing withdrawn lands under Alternative 1. An extension of the withdrawal of current NTTR lands, however, could restrict economic opportunity associated with extraction of some mineral resources. Potentially valuable deposits of mineral resources are present throughout the NTTR. Safety footprints that are required to support the various military missions would necessarily restrict public and industrial access to the NTTR. In terms of mineral exploration, the withdrawal extension of the NTTR would prevent the discovery and exploitation of economically viable resources. Because this alternative would preserve the current boundaries of the NTTR and not greatly increase the intensity of activities, no significant impacts are anticipated with respect to earth resources within the NTTR.

Alternative 2 would have the same footprint and range of activities as discussed for Alternative 1. Ready access under Alternative 2 would allow these activities to be conducted in areas proposed for wilderness that are currently managed as wilderness. Therefore, impacts to earth resources would be similar, if not the same, as discussed under Alternative 1, although occurring in some areas previously undisturbed within the South Range. Activities would avoid to the extent practicable erosion-prone areas (e.g., steep slopes, seep/spring banks), and future actions such as construction would be subjected to additional consideration under NEPA and other applicable regulations and may require permits and best management practices (BMPs) that could include stormwater diversion, erosion control, or any number of best practices. As with current restrictions placed on mineral exploration within the DNWR, a change in jurisdiction would result in a continuation of this situation and would reflect a neutral impact to mineral exploration.

For Alternatives 3A, 3A-1, and 3B, ground-disturbing activities would be limited to fencing installation and would have no significant impact on soils, paleontological, or geologic resources. Expansion within these areas would prevent the discovery and exploitation of economically viable resources. At present, there is one active mining claim within the proposed Range 77 expansion area. If the Air Force withdraws this parcel, a subsequent potential restriction of access to this active claim could potentially represent an impact to earth resources. The significance of these impacts are difficult to quantify until the final disposition of these claims are resolved between the claimants and the Air Force. An ancillary benefit of withdrawal of this area would be access control that would provide the opportunity to restrict access to sensitive paleontological or geologic resource areas and increase the opportunity for beneficial impacts to earth resources owing to this lessened potential for impacts.

Under Alternative 3C, ground-disturbing activities would include troop movements, emitter placement, runway construction, and fencing installation. These activities would avoid erosion-prone areas and would be subject to further NEPA and National Pollutant Discharge Elimination System requirements depending on the action and scope of activity. As a result, implementation of mitigations and BMPs resulting from further site-specific environmental evaluations and regulatory requirements would minimize impacts to soils, paleontological, or geologic resources to less than significant. With the proposed expansion in this area, restricted access to mineral exploration could impact earth resources, depending on the actual interest by industry or the public in these resources. Currently, the NTTR and USFWS-managed DNWR lands are withdrawn from mineral exploration.

For Alternative 4, the longer the term of the withdrawal, the greater the opportunity for future negative impacts to mineral resources due to potential lack of access to industry and the public. Conversely, earth resources such as paleontological and soil resources would benefit from a probable reduction in impacts from mineral exploration and a restriction of public access.

Under the No Action Alternative, the area currently closed to the public would potentially be open to use under BLM and USFWS administration. Access to mineral resources under the No Action Alternative could be less restrictive under BLM management than under Air Force administration, resulting in beneficial impacts to local mining interests. Mining access could be granted and mining decisions made by BLM with State of Nevada involvement. Conversely, potential mining in the released lands could result in removal or significant alteration of geologic features or existing topsoil.

ES.4.11 WATER RESOURCES

Water resources include surface waters, floodplains, groundwater, and water rights and improvements. These features are detailed in Sections 3.11.1.4 through 3.11.1.7 of the LEIS, along with water quality standards applicable to these resources. Figure ES-14 depicts water resources within the NTTR ROI.

Aircraft operations and emitter operations would not result in direct or indirect impacts to water resources and are not evaluated for this resource. It should be noted that the Air Force does not plan to increase groundwater usage for any alternative over those levels already allocated by the Nevada State Engineer.

For Alternative 1, there would be no changes to the baseline quantity or locations of munitions use or ground-disturbing activities and, therefore, no change in the potential for water resources to be affected by erosion or deposition of metals and explosive materials. There would be no change in access to wildlife water features for management and maintenance purposes. There would be no requests for additional surface or groundwater appropriations. Impacts would not increase over baseline conditions.

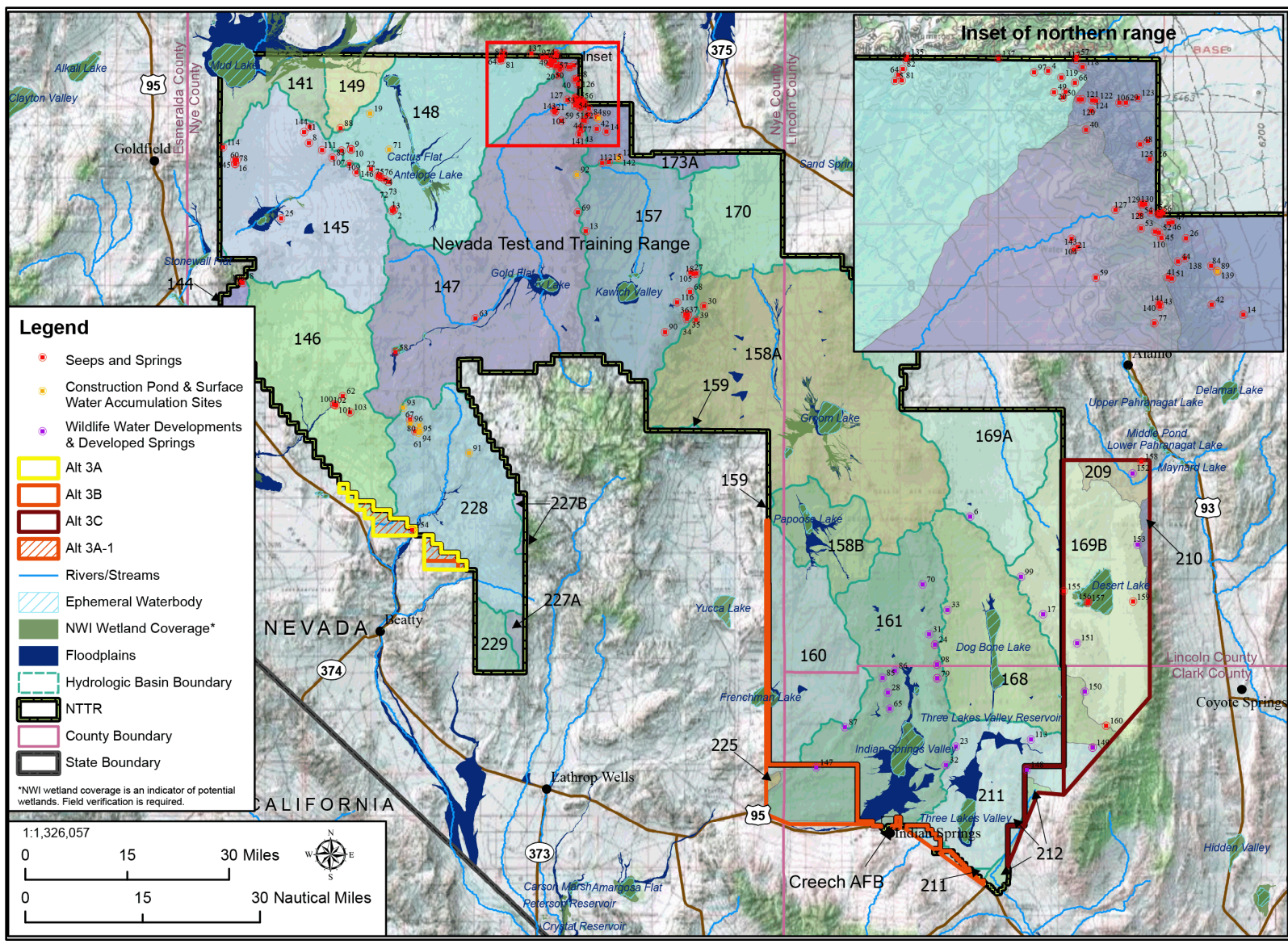


Figure ES-14. Water Resources on the Nevada Test and Training Range

Under Alternative 2, there would be an increase in the quantity and locations of munitions use and ground-disturbing activities on the South Range. These activities would increase the potential for erosion and deposition of metals and explosive materials. However, all new activities would be subject to NEPA review and would involve applicable avoidance/minimization measures. Potential increases in water use could likely be fulfilled through current or existing water rights. Access protocols for water quality and water development management and maintenance actions would be developed. With implementation of these measures, no significant impacts are anticipated.

The proposed expansion areas for Alternatives 3A and 3A-1 include a spring and small floodplain area. Alternative 3A also contains two wells. One groundwater right occurs near the boundary of Alternative 3A. However, there would be no ordnance use or ground activities in these areas, and perimeter fencing would result in only minimal ground disturbance. Access restrictions could affect water quality sampling in the upper Amargosa River watershed; access protocols for these activities would be developed. There would be no requests for additional surface or groundwater appropriations. No significant impacts are anticipated.

One wildlife water development, small floodplain areas, several wells, and one groundwater right occur within the Alternative 3B proposed expansion area. There would be no ordnance use in the area. Perimeter fencing (including crossing of intermittent surface water) would be constructed according to applicable design standards. Access protocols for water quality and water development management and maintenance would be developed. There would be no requests for additional surface or groundwater appropriations. No significant impacts are anticipated.

For Alternative 3C, a total of 12 springs, wildlife water developments, and surface water features (including guzzlers, enhanced springs, and stormwater catchments), as well as potential floodplains and wetlands occur in this proposed expansion area. Two additional springs occur very close to the eastern border. Alternative 3C also contains three surface water rights, three groundwater rights, and three wells. Increased munitions use and ground-disturbing activities would increase the potential for erosion and deposition of metals and explosive materials. However, all new activities would be subject to NEPA review and would involve applicable avoidance/minimization measures. Fuel spills could occur during Forward Air Refueling and Rearming Procedures (FARRP) activities, and fuel could potentially migrate to groundwater or surface waters. However, spill response would be part of training preparation, and the potential for contamination would be reduced by the location (dry lake bed) and soil conditions of training areas. Perimeter fencing (including crossing of intermittent surface water) would be constructed according to applicable design standards. Access protocols for water quality and water development management and maintenance would be developed. Any new water requirements would be evaluated by the Nevada Department of Water Resources. With these actions, no significant impacts are anticipated.

The proposed withdrawal periods associated with Alternative 4 must be implemented in conjunction with one or more of the other alternatives or subalternatives. The Air Force acknowledges that it is difficult to determine significance at the programmatic level for withdrawal periods and understands that there is the potential for impacts to water resources over time for all three subalternatives but implementation of mitigation measures and ongoing management actions associated with those outlined in Section 2.9.2, Mitigation, and Section 3.11.3, Proposed Resource-Specific Mitigations and Management Actions, would minimize or avoid significant impacts to water resources.

Under the No Action Alternative, much of the water-related potential for impacts (erosion and deposition of metals, explosive materials, and depleted uranium) due to military testing and training would cease. Other appropriate land uses could be reintroduced and would likely require evaluation regarding impacts to water resources. If the land were returned to the BLM or USFWS, water rights would remain the property of the Air Force unless the BLM or USFWS requested that the water rights be vacated or transferred to the BLM or USFWS. With implementation of appropriate mitigation measures associated with reintroduced land use, no significant impacts to water resources are anticipated.

ES.4.12 HAZARDOUS MATERIALS AND SOLID WASTES

Sections 3.12.1.3 and 3.12.1.4 of the LEIS describes hazardous materials and hazardous waste management for the NTTR in detail. Section 3.12.1.5 of the LEIS describes U.S. Air Force (DoD) contamination sites managed/identified by various programs, which includes the Environmental Restoration Program, the Resource Conservation and Recovery Act Facility Assessment, the Depleted Uranium Target Assessment, the Surface Soil Sampling at NTTR Bombing Targets, and Spills and Aircraft Crashes. LEIS Section 3.12.1.6 discusses the DOE Environmental Restoration Program. Solid wastes and construction debris are generated from day-to-day operations and infrastructure projects. Solid waste at the NTTR is managed according to Integrated Solid Waste Management Plans. LEIS Section 3.12.1.7 describes solid waste management at the NTTR.

Under Alternative 1, there would be no changes in the quantity of hazardous materials used or hazardous materials generated, and no off-site impacts related to regional disposal capacity would occur. All hazardous materials or wastes would be managed according to established procedures, and no significant impacts are anticipated.

Increased training operations under Alternative 2 would not result in a significant change in the quantity of hazardous materials used, the quantity of hazardous or non-hazardous waste generated, or in off-site impacts related to regional disposal capacity. Therefore, no significant impacts are anticipated.

For Alternatives 3A, 3A-1, and 3B, fencing that will meet BLM standards is proposed and may require maintenance. However, there would be no other activities within these proposed expansion areas that would involve hazardous materials or generate

hazardous wastes. All hazardous materials or wastes would be managed according to established procedures, and no significant impacts are anticipated.

For the proposed expansion area under Alternative 3C, hazardous materials would be used and wastes would be generated from runway construction and runway aircraft operations, installation and operation of emitters, FARRP activities, and possibly from fencing installation and maintenance. However, all hazardous materials or wastes would be managed according to established procedures, and no significant impacts are anticipated.

The proposed withdrawal periods associated with Alternative 4 must be implemented in conjunction with one or more of the other alternatives or subalternatives. The Air Force recognizes that it is difficult to determine significance at the programmatic level for withdrawal periods and recognizes that there is the potential for impacts to hazardous materials and solid wastes over time for all three subalternatives but implementation of ongoing management actions would minimize or avoid significant impacts.

Under the No Action Alternative, hazardous materials would not be used and hazardous wastes would not be generated from maintenance processes, as these would cease. Hazardous materials would be removed from the range and disposed of or reissued elsewhere. Hazardous materials utilized in other land uses on what had been the NTTR would receive separate environmental review and would be administered by BLM. Therefore, no significant impacts are anticipated.

ES.4.13 HEALTH AND SAFETY

The health and safety analysis in Section 3.13 of the LEIS addresses ground, flight, and munitions safety for activities conducted by units operating within the ROI. Ground safety considers fire risk and management, as well as safety issues associated with training operations. Other ground safety concerns include operational safety, lasers, and electromagnetic radiation and radio frequency emissions. Flight safety considers aircraft flight risks such as aircraft mishaps and bird/wildlife-aircraft strike hazards (i.e., BASH). Munitions safety considers the use and handling of ordnance associated with operations and training activities.

Under Alternative 1, there would be no changes in the operational tempo. All actions would continue to be performed by technically qualified personnel in accordance with applicable safety requirements; consequently, there would be no significant impacts related to aircraft mishaps, munitions use, or emitter operations over the baseline condition.

Under Alternative 2, test and training activities would increase by 30 percent. As a result, there may be slight increases in risk potentials relative to any increase in operational tempo. However, all actions would be performed by technically qualified personnel in accordance with applicable safety requirements; consequently, there would be no significant impacts related to aircraft mishaps, munitions use, or emitter operations.

For Alternatives 3A, 3A-1, 3B, and 3C, aircraft operations would increase with the availability of these proposed expansion areas; consequently, the potential for aircraft mishaps and from mishap-related fires would incrementally increase when compared to Alternative 1. Safety impacts resulting from training-initiated fires would not occur, as no air-to-ground or ground-based munitions training would occur in Alternatives 3A, 3A-1, or 3B. All actions would be performed by technically qualified personnel in accordance with applicable safety requirements; consequently, no significant impacts would occur. For Alternative 3C, ground disturbance has the potential to result in an expansion of invasive annual grass that could result in increased wildfire risk. Reduced access for the purposes of safety and security into this area could increase or delay response times, which could result in larger fires. Airspace de-confliction could increase where a wildfire response would include civilian firefighting aircraft.

There are no specific health and safety impacts associated with any subalternatives of Alternative 4; impacts would be the same as those described for the other action alternatives, with Alternative 4 defining the timeframe over which those impacts may occur.

Under the No Action Alternative, potential impacts related to air-to-ground and ground-based activities would not occur, as these operations would cease; however, air-to-air training would still be possible. This may result in a decrease in overall flight operations; consequently, the potential for mishaps or bird/wildlife aircraft strikes would be reduced, resulting in an overall decrease in risks associated with aircraft flight training. Fire response times would decrease because of increased access, possibly decreasing fire size due to timely suppression actions. BLM and the Air Force are currently working to improve fire reporting and fire record keeping for the NTTR. Overall fire management activities would increase.

ES.4.14 TRANSPORTATION

Transportation resources include the infrastructure required for the movement of people, materials, and goods. The ROI for transportation includes the highways surrounding the NTTR within Clark, Lincoln, Nye, and Esmeralda Counties. Figure ES-15 shows the highway and road networks within the NTTR ROI.

Under Alternative 1, impacts on existing NTTR roads would not be expected to change, and there would be no interaction with existing transportation infrastructure, current levels of service, or traffic patterns in the surrounding area beyond existing baseline conditions.

For Alternative 2, ready access could include improvements to existing roads and trails along with possible road/trail relocations especially within the South Range. Troop movements on NTTR roads and surrounding highways would not result in any adverse transportation issues.

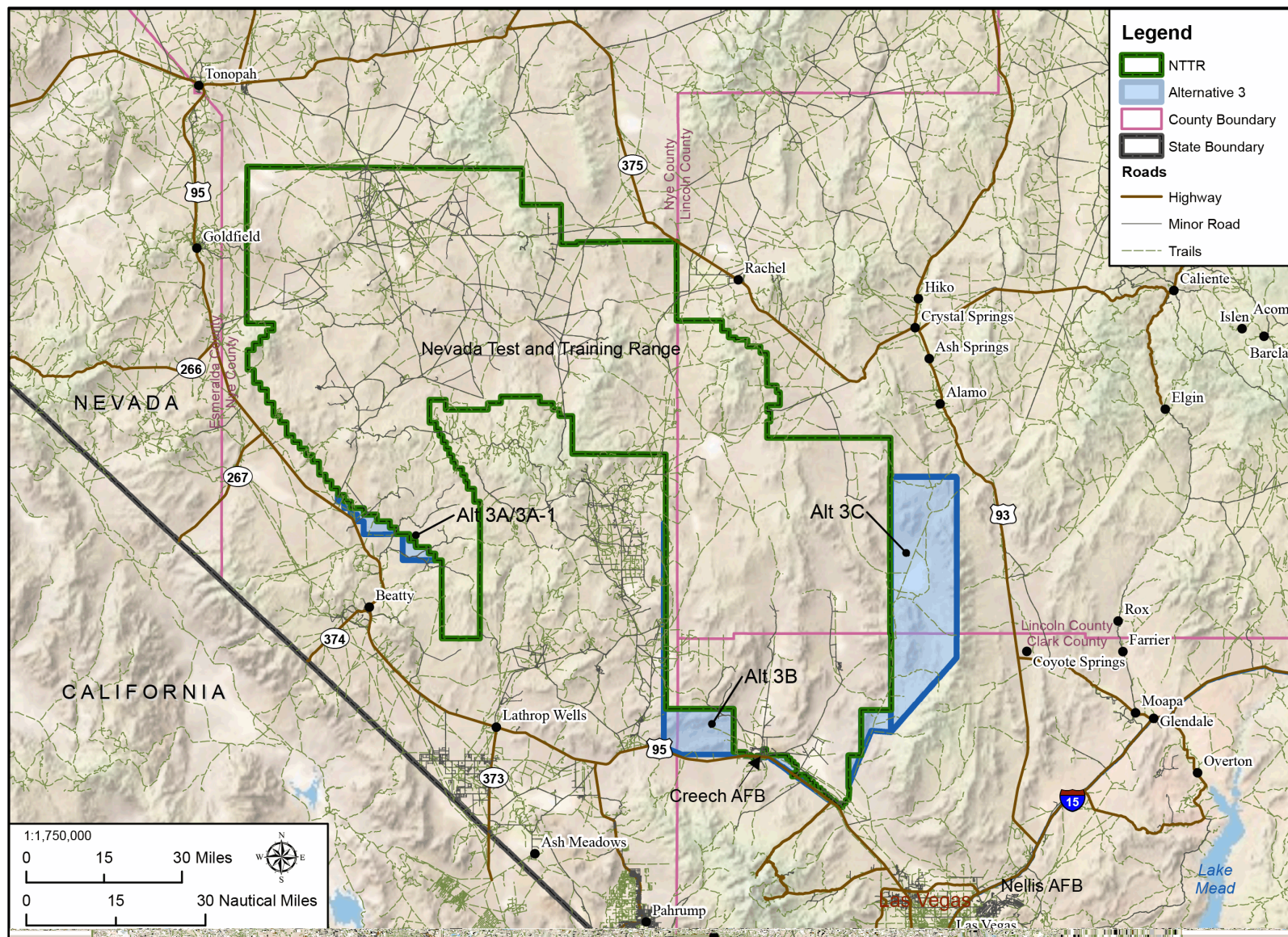


Figure ES-15. NTTR Highway and Road Network

Alternatives 3A, 3A-1, and 3B would have no interaction with the existing transportation infrastructure, current levels of service, or traffic patterns within the NTTR or the surrounding area. For Alternative 3C, in addition to baseline transportation conditions there is the potential for new road construction within the proposed Alamo withdrawal areas. Addition of safety buffers could also require DNWR road closures (primarily Alamo Road and smaller intersecting roads and trails).

Alternative 4 would not result in any interaction with the existing transportation infrastructure, current levels of service, or traffic patterns within the NTTR or the surrounding area.

The No Action Alternative could result in impacts to the existing transportation infrastructure, current levels of service, and traffic patterns within and surrounding the former NTTR lands. However, potential impacts would depend on the future land use planning and resource management objectives for the BLM-administered public lands and management of the DNWR by the USFWS.

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The Final LEIS for the NTTR Land Withdrawal is provided on the CD located below. To view the LEIS on CD, you will need Adobe Acrobat® Reader. If you do not already have Adobe Acrobat® Reader, you can download it at www.adobe.com.

To review the Final LEIS:

- Insert the CD in your computer's CD drive and double-click on the file in the CD directory.
- Scroll through the document, or click on a heading in the Table of Contents and it will take you to that section of the LEIS.

The CD files are read-only, which means you may view and/or print them from the CD. A copy of the Final LEIS is available at each of the public libraries and repositories listed on the inside front cover of this Executive Summary.

PRIVACY ADVISORY

This Final Legislative Environmental Impact Statement (LEIS) is provided in accordance with the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) NEPA Regulations (40 Code of Federal Regulations [CFR] §§1500–1508), and 32 CFR §989, Environmental Impact Analysis Process (EIAP).

The EIAP provides an opportunity for public input on Air Force decision-making, allows the public to offer inputs on alternative ways for the Air Force to accomplish what it is proposing, and solicits comments on the Air Force's analysis of environmental effects. Providing personal information for the EIAP is voluntary.

Public commenting received on the Draft LEIS allowed the Air Force to make better, informed decisions on developing alternatives, identifying a preferred alternative, improving analyses, and developing the case file. Comments provided on the Draft LEIS have been addressed in this Final LEIS and made available to the public. Any personal information provided was used only to identify a desire to make a statement during the public comment portion of any public meetings or hearings or to fulfill requests for copies of the LEIS or associated documents. Private addresses were compiled to develop a mailing list for those requesting copies of the LEIS. However, only the names of the individuals making comments and specific comments are disclosed. Personal home addresses and phone numbers are not published in the LEIS.

Information regarding the Final LEIS is available on the website at www.NTTRLEIS.com. Questions can be addressed to:

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