2.0 Description of Proposed Action and Alternatives

Environmental Impact Statement
Fallon Range Training Complex Modernization
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2 Description of Proposed Action and Alternatives

2.1 Proposed Action

The Commander, United States (U.S.) Pacific Fleet, a command of the U.S. Department of the Navy (Navy), proposes to modernize the Fallon Range Training Complex (FRTC) by expanding land ranges and modifying associated airspace configurations. The Proposed Action would have the following elements:

- Congressional renewal of the 1999 Public Land Withdrawal of 202,864 acres for a term of 25 years, which is scheduled to expire in November 2021;
- withdrawal and reservation by Congress for military use of additional federal land for a term of 25 years;
- acquisition of private or state-owned (non-federal) land;
- expansion of associated Special Use Airspace (SUA) and reconfiguration of existing airspace; and
- modification of range infrastructure to support modernization.

The Navy is not proposing to change the level or type of aviation or ground training from what was analyzed in Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement (EIS)* (U.S. Department of the Navy, 2015a). Rather, the Navy would redistribute training activities for more effective use of the training space.

The Navy is proposing to withdraw or acquire all property that falls within Weapons Danger Zones (WDZs) and Surface Danger Zones (SDZs) in the live fire ranges, and all property in Dixie Valley necessary to support non-live fire training. The specific properties and exact acreage of withdrawal areas and property to be acquired will depend on the alternative chosen. If Congress ultimately approves the Proposed Action, the Navy would strive to minimize the actual withdrawal/acquisition acreage with a goal to track the actual boundaries of any approved WDZ/SDZ and non-live fire training area while considering terrain features and individual parcel characteristics. This Final EIS contains more refined boundary locations and acreage figures than those presented in the Draft EIS.

2.2 Screening Factors

The Navy developed screening factors to evaluate potential alternatives to determine what would meet the purpose of and need for the Proposed Action. Screening factors are based on the training capability gaps identified in the *Ninety Days to Combat Required Training Capabilities Study* (U.S. Department of the Navy, 2015b) to provide the training capabilities needed by Navy and other Department of Defense personnel in order to meet evolving current and future threats. The Navy used the following primary screening factors to evaluate potential alternatives:

- Provide a realistic training environment that meets tactically acceptable parameters.
- Provide a training environment capable of supporting readiness training, including the use of high-explosive ordnance, in a manner that protects the safety of the public and of military personnel.
- Provide adequate training tempo to support year-round air-to-ground and air-to-air Carrier Air Wing training.

The Navy also considered terrain features (e.g., mountains), existing civilian infrastructure (e.g., highways), known environmental concerns, and the concerns of local and regional populations in developing potential alternatives. The following subsections describe the screening factors in detail.

2.2.1 Realistic Training Environment

A training complex must provide a realistic and dynamic training environment for weapons systems and platforms, and accommodate new combat Tactics, Techniques, and Procedures (TTP). Specifically, a land-based training complex and airspace that serves or provides training for Advanced Integrated Strike Warfare must meet the screening sub-factors listed below:

- Meet the air-to-ground tactically acceptable weapons release parameters.
  - Have sufficient airspace to protect civilian aviation from hazardous activities associated with air-to-ground weapons employment.
  - Present a realistic level of threat scenario complexity by providing multiple range targets and target complexes.
  - Accommodate a weapons release altitude up to 30,000 feet above mean sea level.
  - Allow a 360-degree (°) attack azimuth for the laser-guided weapons class of munition.
  - Allow a 180° attack azimuth for all other munitions classes.
  - Have a release range for all joint direct attack munitions up to 10 nautical miles.
- Meet air-to-air tactically acceptable parameters with adequate airspace availability.
  - Have sufficient airspace to conduct realistic aviation training.
  - Support large force exercise training with associated supersonic capabilities.
- Meet tactically acceptable parameters for Tactical Ground Mobility to fulfill the Naval Special Warfare mission.
  - Provide multiple training areas with multiple threats and targets to accommodate Immediate Action Drill training.
  - Possess a 360° field of fire at multiple firing positions for small arms.
  - Have a 180° field of fire for .50 caliber firearms.
  - Be able to integrate with fixed-wing and rotary-wing aircraft for Close Air Support training.
  - Host training in a variety of terrains (e.g., mountains, playas, valleys and areas with high topographic variability).
  - Meet free-maneuver area training requirements.
- Meet non-weapons requirements.
  - Provide a dedicated training area for non-live-fire training activities critical to warfighting tactics and skills development, such as Combat Search and Rescue, Convoy Escort training, and dynamic targeting events.
  - Accommodate installation of Electronic Warfare transmitters in mountainous terrain to replicate real-world threats.
  - Able to conduct Electronic Warfare training without interference from or to civilian electronic systems.
  - Able to support precision range tracking, systems scoring instrumentation systems, and robust communications infrastructure to relay information back to a base or airfield.

2.2.2 Safety

The Navy must conduct training activities in a way that ensures the safety of the public and military personnel. Specifically, a land-based training complex and associated airspace that serves or provides training for Advanced Integrated Strike Warfare must meet the screening sub-factors listed below:

- Ensure air-to-ground training areas encompass WDZs sufficient to contain high-explosive munitions and their constituents to ensure range safety by complying with ordnance safety requirements associated with weapons release parameters.
- Ensure ground-based fire-and-maneuver training areas fully contain SDZs sufficient to contain projectiles of various calibers to ensure range safety by complying with safety requirements associated with the use of crew-served and small arms weapons.
- Ensure Navy-controlled land is free of safety hazards for aircraft, including cables, wires, towers, as well as cultural lighting (from cities, streets, and infrastructure), incompatible with the use of Night Vision Devices.

2.2.3 Tempo

The training complex would support training for an entire Carrier Air Wing, which consists of upwards of 60 aircraft. Specifically, a land-based training complex and airspace that serves or provides training for Advanced Integrated Strike Warfare must meet the following screening factors:

- Support a year-round training tempo and provide airspace for an entire Carrier Air Wing, as required by the Optimized Fleet Response Plan (Chief of Naval Operations Instruction [OPNAVINST] 300.15). This tempo includes 8–12 major training events (up to four weeks per event) per year (Carrier Air Wings and Advanced Readiness Programs). This training is required before the Carrier Air Wing can deploy with its Carrier Strike Group and must be scheduled to align with the associated Carrier Strike Group deployment schedule.
- Accommodate maintenance and basic training events that are part of the Optimized Fleet Response Plan timeline, including weapons and tactics training, and unit-level strike and air warfare training.
    - Support 8–10 Weapons Tactics Courses per year (up to 16 weeks per course, with potential overlap) (e.g., TOPGUN).
    - Support continuous unit-level basic training for naval aviation.
- Support 8–12 events (up to two weeks per event) per year for Naval Special Warfare.
- Allow the Navy to execute up to 35 percent of missions at night using realistic tactics.

2.3 Alternatives Carried Forward for Analysis

The Navy issued the Notice of Intent for this EIS without defined alternatives. The purpose was to collect responses from the public and stakeholders regarding potential impacts, concerns, and suggestions for other alternatives. The public, including interested individuals, government agencies and officials, Indian Tribes, and nongovernmental organizations, submitted comments during the public scoping period. Following the public scoping period, the Navy reviewed submitted comments and conducted additional meetings with various stakeholders to discuss potential alternatives to Alternative 1.

The Navy then used the screening and sub-factors as described in Section 2.2 (Screening Factors) to evaluate whether potential alternatives met the purpose of and need for the Proposed Action. In addition to the No Action Alternative, the Navy identified three action alternatives for detailed analysis in this EIS. Because the No Action Alternative does not include the renewal of the existing withdrawn lands under Public Law 106-65 nor does it request any withdrawal or propose any acquisition of new land, it does not represent the “status-quo,” or the current status, of military training activities at the FRTC. Therefore, an "environmental baseline" for this EIS was needed to compare the potential impacts of all alternatives to existing conditions and is based on aviation and ground training activities as established under Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training*

Complex, Nevada Final Environmental Impact Statement (U.S. Department of the Navy, 2015a). The Navy compared the action alternatives and the No Action Alternative to the environmental baseline as presented in Section 2.4 (Environmental Baseline [Current Training Activities]).

Under all alternatives within this EIS, the Navy would conduct the same types of aviation and ground training at the same tempos as analyzed by the U.S. Pacific Fleet in Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015a). The Navy would redistribute training activities for more effective use of the training space.

The alternatives considered include management practices intended to reduce environmental effects of training. Chapter 5 (Management Practices, Monitoring, and Mitigation) further discusses management practices.

2.3.1 No Action Alternative

The Council on Environmental Quality implementing regulations require inclusion of a No Action Alternative and analysis of reasonable alternatives to provide a clear basis for choice among options by the decision maker and the public (40 Code of Federal Regulations [CFR] section 1502.14). Council on Environmental Quality guidance identifies two approaches in developing the No Action Alternative (46 Federal Register 18026). One approach for activities that have been ongoing for long periods of time is for the No Action Alternative to be thought of in terms of continuing the present course of action, or current management direction or intensity, such as the continuation of Navy training at Naval Air Station (NAS) Fallon and the FRTC at current levels. Under this approach, the analysis compares the effects of continuing current activity levels (i.e., the "status quo") with the effects of the Proposed Action. The second approach involves a scenario where no authorizations or permits are issued, the Navy's training activities do not take place, and the resulting environmental effects from taking no action are compared with the effects of the Proposed Action.

This Final EIS follows the second approach, as the No Action Alternative consists of not renewing the 1999 Public Land Withdrawal of 202,864 acres, which is scheduled to expire in November 2021, and not withdrawing or acquiring any new land. Under the No Action Alternative, current and proposed training at FRTC would likely need to be accommodated elsewhere. This would result in the loss of the integrated nature of training, as well as the fragmentation and total loss of essential training functions. Consequently, the No Action Alternative of not renewing existing withdrawn lands or requesting additional withdrawals or proposals is inherently unreasonable in that it does not meet the Navy's purpose and need based on the requirement to provide a realistic training environment, as discussed in Section 2.2.1 (Realistic Training Environment). However, the analysis associated with the No Action Alternative is carried forward in order to compare the Environmental Baseline (the current affected environment) with the conditions that would occur if the Proposed Action did not occur.

Under the No Action Alternative, the 1999 Congressional land withdrawal of 201,933 acres from public domain (Public Law 106-65[1]) would expire on November 5, 2021, and military training activities requiring the use of these public lands would cease. Expiration of the land withdrawal would terminate

[1] The Public Law 106-65 language indicates 204,953 acres. However, the legal description per the published Federal Register is 201,933 acres. For cadastral purposes, the legal description governs. Further, since publication, numerous land surveys and GIS advances have been made. This is apparent in the acreage listed in the BLM segregation package, which lists the total withdrawn acreage as 202,864 acres.

the Navy's authority to use nearly all of the FRTC's bombing ranges, affecting nearly 62 percent of the land area currently available for military aviation and ground training activities in the FRTC. The Navy would remove training infrastructure and instrumentation from these lands, including those that are part of the Electronic Warfare Complex.

The Navy would retain administrative control of the land withdrawn under Public Law 106-65 until any required environmental remediation was completed and health and safety concerns were sufficiently addressed to allow the return of the land to the Bureau of Land Management (BLM) for reincorporation into the public domain. The Navy would also continue to be responsible for the 35,012 acres of public lands permanently withdrawn for military use under Public Law Order 898 (1953) and the 30,383 acres acquired by the Navy through purchase in 1986 (see Figure 1-2). The Public Law Order 898 lands are divided among the B-16, B-17, and B-19 ranges, and the 1986 acquisition lands are at the existing B-20 range (19,430 acres in checkerboard pattern) and the very northern portion of the Dixie Valley Training Area (DVTA) (10,953 acres). The Navy could still perform some training activities within the FRTC that are independent of the land withdrawn under Public Law 106-65, but these remaining land holdings would provide a land area less than 30 percent of the size of the existing FRTC, dispersed among many geographic areas. Therefore, training would be significantly limited.

Further, some non-hazardous training activities could continue to be accommodated within the FRTC after expiration of the withdrawal, such as non-firing air combat maneuvers, Combat Search and Rescue, and Close Air Support. However, it must be emphasized that the 35,012 acres of permanently withdrawn land and the 30,383 acres of acquired land, which are spread out over multiple geographic areas, would be insufficient to conduct existing integrated strike warfare training for an entire Carrier Air Wing or Special Forces ground training, and would not meet the future aviation warfare training needs identified in *Ninety Days to Combat*.

If the 1999 Public Law 106-65 land withdrawal were not renewed, air-to-surface training could no longer be conducted due to the lack of available lands for the bombing ranges. The restricted airspace associated with these bombing ranges would no longer be required. Air-to-air training could continue in existing Military Operating Areas (MOAs), although it would not include the advanced integrated phase of training, which includes the Large Force Exercise training that accommodates both air-to-air and air-to-surface training in a single mass event. Training exercises bring together squadrons, teach them to work together under real world scenarios, and are required before the Carrier Air Wing can deploy with its Carrier Strike Group. Large Force Exercises are the critical last step in ensuring all components of an air wing are fully prepared for deployment. As the FRTC is the sole location available to the Navy that can support, house, and train an entire Carrier Air Wing for advanced integrated training, the non-renewal of Public Law 106-65 would severely impact pre-deployment training. The air-to-air mission could continue to use the Military Training Areas for basic level air-to-air training only. Following any relinquishment of Public Law 106-65 lands, the Navy would evaluate the future use of special use airspace and coordinate with the Federal Aviation Administration (FAA) on the disestablishment of special use airspace, as required. The Navy anticipates that any relinquished airspace would likely become available pursuant to applicable FAA policy, procedure, guidance, and orders.

Given the dramatic reduction in training capabilities at the FRTC in the absence of continued use of the withdrawn lands provided by Public Law 106-65, the Navy also anticipates needing to re-evaluate the mission of NAS Fallon, as well as the continued use of currently available assets of the training complex, including the remaining permanently withdrawn and acquired lands.

This evaluation of the mission would also consider how and where—and whether and to what extent—existing and future naval aviation and ground training could continue to be conducted if the FRTC's usage were to cease under the No Action Alternative. As explained in Chapter 1 (Purpose of and Need for the Proposed Action) of this EIS, the aviation and ground training conducted within the FRTC is essential to the national security interests of the United States, and the Navy would thus need to attempt to relocate and continue these training activities at some other location. In Section 2.5 (Alternatives Considered but Not Carried Forward for Detailed Analysis) of this EIS, the Navy analyzes whether it would be possible to move the FRTC's aviation and ground training activities in whole or in part to other Department of Defense installations and ranges within the continental United States and abroad, such as Naval Air Weapons Station (NAWS) China Lake, Nevada Test and Training Range, and Utah Test and Training Range. While these installations and ranges could support some training, their current missions would effectively deny the Navy the necessary capacity to support the required tempo and level of training unless (1) the activities currently conducted at these locations were displaced or (2) these ranges significantly expanded. The Navy has determined that these two options are not reasonable. While developing training systems is possible at other locations, without terminating the existing testing and training activities that occur there, other locations as currently configured would not be able to support the tempo and level of Navy training, or the scheduling priorities required by the Optimized Fleet Response Plan. Converting other ranges to accommodate Navy training would not be technically or economically feasible, and even if the Navy were hypothetically able to undertake such a conversion, doing so would not eliminate the scheduling conflicts. Please see Section 2.5 (Alternatives Considered but Not Carried Forward for Detailed Analysis) of this EIS for a more detailed discussion of alternatives considered but not carried forward for analysis.

In summary, under the No Action Alternative, current and proposed training at FRTC would need to be accommodated elsewhere. This would result in the potential loss of the integrated nature of training, as well as the fragmentation and total loss of essential training functions. At this time, identifying where and how those training needs could be accommodated—and what the ultimate consequences of such a scenario would be—would involve a complex planning, budgeting, and acquisition program that is speculative and beyond the scope of this EIS. Therefore, the analysis of the No Action Alternative addresses the relinquishment of the withdrawn lands to BLM as well as the associated potential environmental impacts of the land management and land use changes.

2.3.2 Alternative 1 – Modernization of the Fallon Range Training Complex

Under Alternative 1, bombing ranges and training areas would be expanded (Figure 2-1). The Navy does not propose to expand B-19 and the Shoal Site. Expanding bombing ranges B-16, B-17, and B-20 would accommodate the larger safety zones needed to accommodate standoff weapons training. Expanding the DVTA would enhance the safety of aviators during low-altitude and nighttime non-weapons training events, as well as offer a more realistic non-weapons environment for Electronic Warfare, convoy training, and search and rescue training.

What is a Standoff Weapon?

Standoff weapons are munitions that launch at a distance from a target to allow attacking forces to evade defensive fire from the target area. When used in practice, weapons release occurs from the aircraft at certain heights, speeds, and distances for safety, to remain on target, and to meet training objectives.

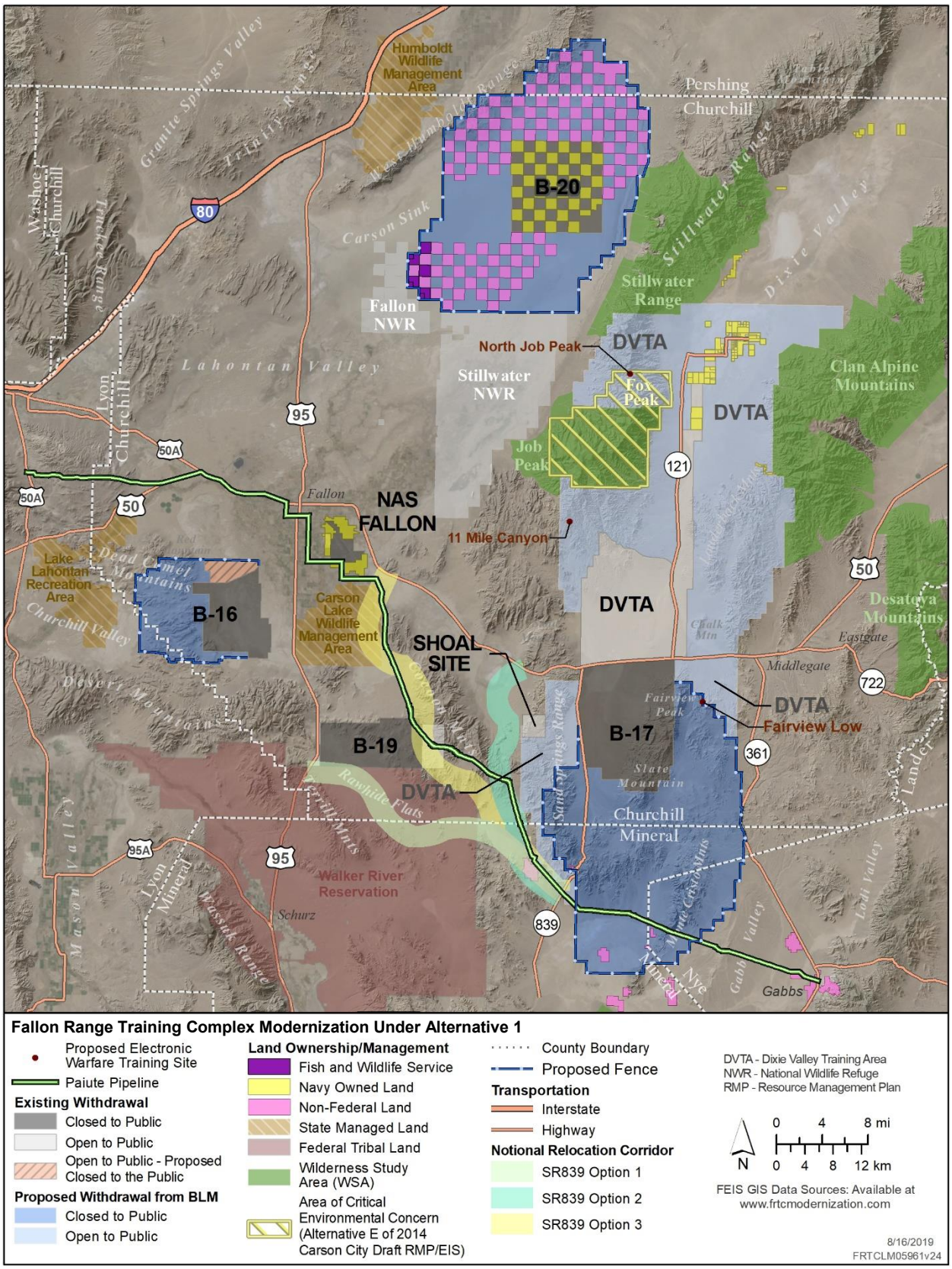

Figure 2-1: Fallon Range Training Complex Modernization Under Alternative 1

Specifically, under Alternative 1, the Navy would take the following actions:

- Request Congressional renewal of the 1999 Public Land Withdrawal of 202,864 acres, which is scheduled to expire in November 2021 (Table 2-1).
- Request that Congress withdraw and reserve for military use approximately 618,727 acres of additional Federal land (Table 2-1).
- Acquire approximately 65,159 acres of private or state-owned (non-federal) land (Table 2-1).
- Construct range infrastructure to support modernization, including new target areas.
- Expand and reconfigure existing SUA to accommodate the expanded bombing ranges (Figure 2-7).

Table 2-1: Alternative 1 Requested Withdrawal and Proposed for Acquisition by Range

Area	Existing Acreage			Requested Additional Withdrawal and Proposed Acquisition		Grand Total
	Withdrawn[1] (acres)	Non-Federally Owned (acres)	Navy Fee Owned (acres)	Withdrawn[1] (acres)	Non-Federally Owned (acres)	
Bombing Ranges						
B-16	27,359	0	0	32,201	0	59,560
B-17	53,546[2]	1,215	25	176,977	1,036	232,799
B-19	29,012	0	0	0	0	29,012
B-20	21,576	0	19,429	118,564	61,765	221,334
Total	131,493	1,215	19,454	327,742	62,801	542,705
Training Areas						
DVTA	68,809	0	8,750	290,985	2,358*	370,903
Shoal	2,561	0	0	0	0	2,561
Total	71,370	0	8,750	290,985	2,358	373,464
Totals[+]	**202,864**	**1,215**	**28,205**	**618,727**	**65,159**	**916,168**

[1]Withdrawn lands are lands withheld from the operation of public land laws for the use or benefit of an agency by reservation, withdrawal, or other restrictions for a special government purpose. The existing withdrawn acreage represents the area currently withdrawn that Navy is requesting for renewal. This number does not match the acreage values as described in PL 106-65 as a result of numerous map revisions and land surveys by the BLM since 1999.

[2]The Navy is currently performing a land parcel survey to allow the potential relinquishment of 12 acres of land on the existing B-17 adjacent to State Route 839 to allow continued use of the area for local livestock and wildlife watering efforts.

*Six of these acres are State lands. [+]Due to rounding of acreage values at the category level, some total columns may not match calculated totals.

Notes: B = Bravo, DVTA = Dixie Valley Training Area, Navy = United States Department of the Navy

Under Alternative 1, the Navy would use the modernized FRTC to conduct aviation and ground training of the same general types and at the same tempos as analyzed in Alternative 2 of the *2015 Military*

Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement (U.S. Department of the Navy, 2015a). The Navy is not proposing to increase the number of training activities under this or any of the alternatives in this EIS.

2.3.3 Follow-On National Environmental Policy Act Actions

The WDZ proposed at B-17 would extend over portions of State Route 839, as well as portions of a natural gas pipeline (referred to as the "Paiute Pipeline"). Navy policy does not allow public land use of any kind to occur within active WDZs (OPNAVINST 3550.1A) for safety reasons. Implementation of Alternative 1 would require two follow-on actions:

- **Reroute State Route 839.** While any proposed rerouting is still conceptual in nature and would be evaluated in follow-on NEPA documentation, preliminary discussions with the Nevada Department of Transportation (NDOT) indicate that NDOT would need to submit an application to BLM, or other land managers, for the rights of way (ROWs) for any proposed new road section. The BLM or other land manager would conduct follow-on, site-specific National Environmental Policy Act (NEPA) analysis of any proposed routes for such ROWs, prior to making any decision with respect to any final route. The Navy would support, fund, and if necessary, participate in any such NEPA analysis. The NDOT would ensure that construction of any new route is complete before any closure of any portion of the existing State Route 839, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing State Route 839 unless and until any such new route has been completed and made available to the public.
- **Relocate a portion of the Paiute Pipeline.** The Navy would purchase and pay for relocation of that portion of the pipeline that would need to be relocated. Using funding provided by the Navy, the Paiute Pipeline Company would be responsible for planning, designing, permitting, funding, and constructing any realignment of the pipeline. A ROW application submitted to the BLM by the pipeline owner would formally identify any proposed reroute. Site-specific environmental analysis and NEPA planning would be required before any potential relocation of the pipeline could occur, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing pipeline unless and until any such re-routing of the pipeline has been completed and made available to the pipeline owner. The BLM would have decision authority with respect to any proposed final routing subsequent to completion of site-specific environmental analysis.

Currently, all activities listed in Table 2-2 are allowed on public lands requested for withdrawal and proposed for acquisition. Under Alternative 1, the Navy would restrict public activity at each range on withdrawn or acquired lands. Public access to certain ranges (e.g., B-16, B-17, B-19, and B-20) within the FRTC would be restricted for security and to safeguard against potential hazards associated with military activities. Table 2-2 shows public activities the Navy would allow under Alternative 1 within FRTC land areas. Table 2-3 shows the percentage of each county requested for withdrawal or proposed for acquisition by land category (open or closed to the public) by each County.

Table 2-2: Alternative 1 Allowable Activities Within Range Boundaries

Area	Activity											
	Grazing	Hunting	Mining			Solar /Wind	Utilities /ROWs	OHV	Camping /Hiking	Site Visits (Ceremonial, Cultural, Research)	Mgmt* Access	Events (Races)
			Locatable+	Leasable	Salable							
B-16	1	1	1	1	1	1	1	1	1	2	2	1
B-17	1	1	1	1	1	1	1	1	1	2	2	1
B-19	1	1	1	1	1	1	1	1	1	2	2	1
B-20	1	1	1	1	1	1	1	1	1	2	2	1
DVTA	3	3	1	1	1	1	2	3	3	3	3	3

Notes: 1. Grey = Activity not allowed because of concern for public safety. The public has no access to these areas.
2. Yellow = Activity allowable. Limited public access. 3. Green = Open to public access. No change to current restrictions.
+ Locatable minerals are those which, when found in valuable deposits, can be acquired under the General Mining Law of 1872, as amended. Examples of locatable minerals include, but are not limited to, those minerals containing gold, silver, tungsten, fluorite, copper, lead, and zinc. Examples of leasable minerals include, but are not limited to, oil, gas, coal, oil shale, and geothermal resources. (17 Stat. 91; 30 U.S.C. 22 et seq.). The Geothermal Steam Act (30 U.S.C. 1001 et seq.) controls geothermal resources Salable minerals (mineral materials, 43 Code of Federal Regulations 3600) are common varieties of sand, stone, gravel, pumice, pumicite, cinders, and clay.
*Mgmt = Management (i.e., BLM, Bureau of Reclamation, NDOW, USFWS, local government access). The Navy would work with land managers who need access for management activities to ensure that their access is coordinated and compatible with military training activities on all ranges and in the DVTA.

Table 2-3: Lands Requested for Withdrawal and Proposed for Acquisition by Percentage of County Under Alternative 1

Area	Land Category	County				
		Churchill	Nye	Pershing	Mineral	Lyon
B-16	Open	0	0	0	0	0
	Closed	0.88%	0	0	0	0.31%
B-17	Open	0	0	0	0	0
	Closed	2.15%	0.26%	0	3.22%	0
B-20	Open	0.01%	0	0	0	0
	Closed	4.95%	0	0.56%	0	0
DVTA	Open	8.95%	0	0	0.25%	0
	Closed	0	0	0	0	0
Total Percentage of County	**Open**	**8.96%**	**0.00%**	**0.00%**	**0.25%**	**0.00%**
	Closed	**7.98%**	**0.26%**	**0.56%**	**3.22%**	**0.31%**

Acreage values are derived from the GIS layers of the proposed withdrawal and expansion and may not equal values developed from the real estate cadastre. Also, acreage values do not include Navy-Fee Owned lands in calculation.

2.3.4 Impacts Minimization Methods Incorporated into the Proposed Action

The Navy recognizes the potential socioeconomic impacts on the community, and is proposing to incorporate processes within the Proposed Action that could reduce potential impacts on private landowners, mining claim holders, water-right owners, and public land grazing permit holders, as described below. To minimize some of these impacts, affected private landowners would receive just compensation for loss of any privately-owned land acquired by the United States and any compensable rights associated with such land. Mining claim holders and owners of water rights would be compensated as described below. Pursuant to the Taylor Grazing Act of 1934, as amended (43 United States Code [U.S.C.] section 315q), the Navy would make payments to federal grazing permit holders for losses as a result of the withdrawal or other use of former federal grazing lands for war or national defense purposes.

2.3.4.1 Grazing

As presented in Table 2-2, grazing activities would be prohibited on the existing and expanded bombing ranges (B-16, B-17, and B-20). The Taylor Grazing Act of 1934 (43 U.S.C. sections 315q) provides the Navy with the authority to make payments for certain grazing-related losses. The Navy would work with grazing permittees on a case-by-case basis to try to minimize losses resulting from the cancellation of a grazing permit. This process allows for the valuation of the cost of providing replacement forage or losses resulting from an inability to provide replacement forage. The process also determines the value of improvements made by permit holders (e.g., value of wells, corrals, fencing, and any other improvements considered to be real property). The Navy would use this process to determine payments to individuals who may experience losses resulting from the cancellation of grazing permits or other disruption of their livestock grazing operations as a result of implementation of any of the action alternatives. This process includes

- **Payment for Losses**. The Navy would first consider costs associated with obtaining replacement forage and otherwise restoring/maintaining a permittee's existing operational capacity. Working with BLM and the permittee, the Navy would determine the costs necessary to replace the area/capacity removed from a grazing permit. These costs could include, but would not be limited to, preparing new allotment applications; complying with BLM environmental requirements and water rights studies; procuring private market replacement forage; shipping or transporting forage, cattle, and/or ranch personnel and their horses and equipment; one-time relocation expenses associated with any full or partial transferring of operations to any new location(s); any reasonably anticipated lost profits arising as a result of operational downtime while restoring and/or relocating operations; and any other costs identified, which would be properly payable under 43 U.S.C. section 315q.
  Should a permit holder decide not to seek replacement forage in conjunction with restoring operational capacity, or when restoring such capacity is not practicable, the Navy would make a good faith estimate of the financial impact the loss of that individual's permit would be expected to have on his or her ranching operation. The Navy would ask each permit holder to provide recent business operating expenses associated with the permit, their total operating expenses, an estimate of that portion of income believed to be directly related to utilization of the permit, and total income and taxes. This information would be used to determine a payment amount to compensate for losses resulting from permit cancellation, including reasonably anticipated lost profits that would otherwise have accrued during the duration of the permit.

If a permit holder does not wish to share their financial information, or if the information shared is incomplete, the Navy would make an estimate of the value of the losses based on existing information from other sources.

It is possible that a payment amount would be based both on replacement forage along with other operational restoration-related costs, and on the financial impact the loss of a permit would be expected to have on a ranching operation (i.e., part of the payment would be based on obtaining replacement forage to the extent practicable and the rest based on payment for losses to the extent obtaining replacement forage is not practicable). In those instances, the costs to restore operational capacity would first be determined, and the remaining payment amount would then be determined in accordance with the paragraph above discussing permits holders who may elect not to seek replacement forage capacity.

- **Payment for Allotment Improvements**. Improvements such as corrals, fencing, wells, and other appurtenances that cannot be relocated are considered real property, similar to a building. The Navy would appraise the value of all real property owned by a permit holder and would offer fair market value for the purchase of any such real property. Equipment, such as relocatable water tanks, is not considered real property, and the permit holder would be afforded an opportunity to remove their equipment prior to cancellation of a permit.
- **Timing of Permit Cancellation**. The Navy anticipates issuing their Record of Decision with respect to FRTC modernization in January 2020. However, any Congressional withdrawal of the area currently supporting grazing permits would not be expected until September 30, 2020, or later. Similarly, any Congressional appropriation for implementing the FRTC Modernization action, which would include funds for making payments to grazing permit holders, would not be expected until September 30, 2020, or later. Accordingly, the earliest the Navy would request that BLM modify any permit would be October 1, 2020.

  If the Congressional withdrawal is enacted, and if Congress appropriates funds to implement the FRTC Modernization effort, the Navy would ask BLM to contact each affected permit holder. BLM would coordinate with the Navy on any action to initiate modification of a permit. Under 43 CFR Part 4100 Subpart 4110.4-2 (Decrease in Land Acreages), BLM would be required to provide two years advance notice of any permit modification. Permits would therefore not be modified until October 2022. Once a given notification is made, the Navy, with assistance from BLM, would begin discussions with affected permit holders to determine payment amounts in accordance with the processes described herein.

2.3.4.2 Mining

Similar to grazing activities, mining activities would not be allowed under Alternative 1. The Navy is proposing to make payments to holders of mining claims under all three action alternatives.

- **Valid Existing Claims**. For there to be a valid existing mining right, the claim holder must demonstrate that the claim contains a discovery of a valuable mineral deposit. Having a valid existing claim would exclude any such claim from any moratorium imposed by the requested withdrawal legislation for development of the claim. Under Alternative 1, 2, or 3, the Navy would acquire any valid existing claims within the proposed withdrawal areas at fair market value.

- **Existing Patented Mining Claims**. For existing patented mining claims, the federal government has passed the title of these lands to the claimant, making these lands private lands. The Navy would therefore need to acquire any such lands within the proposed FRTC land boundary. The existence of a patented mining claim does not in itself indicate whether there has been any discovery of a valuable mineral deposit associated with lands in question.
- **Unpatented Mining Claims**. Holders of unpatented mining claims on public lands may conduct a validity exam, which is a formal process that determines whether the claim holder has a valid existing right. The Secretary of the Interior determines the validity of a claim based on this validity examination. However, holders of unpatented mining claims are not required to conduct a validity exam. In instances where a claim holder has not conducted a validity exam, any value associated with the claim is assumed to be nominal. Accordingly, the Navy would offer claim holders without a validity exam a nominal amount to extinguish the claim.

2.3.4.3 Bravo-16

2.3.4.3.1 Land Withdrawal and Acquisition

Under Alternative 1, the B-16 range would expand to the west by approximately 32,201 acres of public federal BLM and Bureau of Reclamation land (Table 2-1, Figure 2-2), increasing the range's total area to approximately 59,560 acres. The combined existing and expanded B-16 area proposed under Alternative 1 would support tactically acceptable training requirements. The current size of the B-16 range does not accommodate either concurrent training or realistic Tactical Ground Mobility training. Expansion would allow concurrent training operations with Naval Special Warfare tactical ground mobility training activities in the proposed western expansion area and air operations (helicopter and fixed wing) in the eastern portion of the existing B-16 range using existing targets.

2.3.4.3.2 Public Accessibility

Currently, all activities listed in Table 2-2 are allowed on non-private lands requested for withdrawal and proposed for acquisition. Under Alternative 1, the B-16 range would be closed to public use (grazing, hunting, mining, solar/wind, utilities/ROWs, off-highway vehicle [OHV] use, camping/hiking, and special race events would not be allowed), except for Navy-authorized activities such as ceremonial or cultural site visits, research/academic pursuits, or regulatory or management activities (e.g., BLM or Bureau of Reclamation).

The Navy would close Sand Canyon Road, the main east-west road through the requested withdrawal, to the public as well as Hooten Well Road and Red Mountain Road. Additionally, Simpson Road and a small portion of land south of Simpson Road would also be closed to public use. The road identified as Simpson Road on Figure 2-2 does not follow the historic alignment of the road. To be consistent with BLM documents, the Navy calls the road Simpson Road.

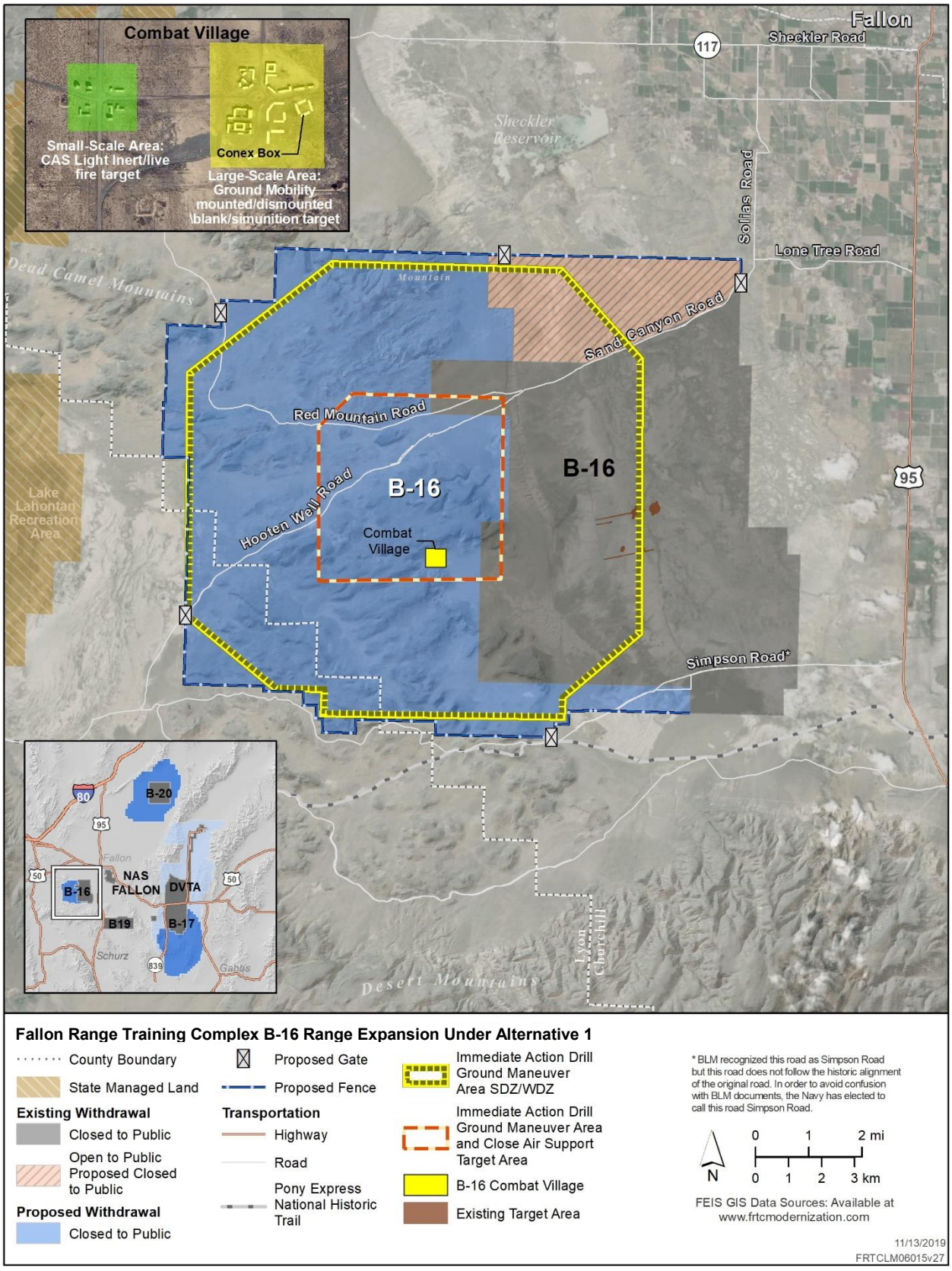

Figure 2-2: Fallon Range Training Complex B-16 Range Expansion Under Alternative 1

2.3.4.3.3 Construction

Under Alternative 1, the following construction activities would occur at B-16:

- The Navy would construct a combat village to make the ongoing Tactical Ground Mobility training at B-16 (Figure 2-2) more realistic. The combat village would have two separate areas, 1,600 feet apart. Direct action operations would use the larger areas (25–30 conex boxes) to the west, while close air support would occur in the smaller area (10–15 conex boxes). Conex (i.e., "container express") boxes are steel shipping containers used to transport materials and products by rail, truck, or ship. The Navy would level the ground up to 20 feet around each conex box. The combat village would not require paved roads or utilities. The total amount of land needed would be approximately 150 acres.
- The perimeter of the proposed expansion lands would be fenced using 31 miles of wildlife friendly configured four-wire fencing (with additional coordination with Nevada Department of Wildlife [NDOW]) with five 20-foot double swinging gates (Figure 2-2) for controlled access into the range. Spacing of wires would be configured appropriately for the wildlife in the area. The Navy would place signage at regular intervals along the perimeter fencing. The fencing would join with existing fences at B-16 (Figure 2-2). Additionally, the Navy analyzed proposed fencing in the *Environmental Assessment for the Proposed Addition of Training Activities and Range Enhancements at Naval Air Station Fallon on Training Range Bravo-16, Churchill County, Nevada, September 2014* (U.S. Department of the Navy, 2014),. This fencing would now be installed, joining with existing fencing and other new proposed fencing in this EIS around the proposed expansion lands. The construction process would follow recommendations in BLM's Handbook 1741-1, such as avoiding bulldozer clearing or other major soil-disturbing methods. One crew could install perimeter fencing in approximately six months. Following installation, the Navy would incrementally remove the interior fencing that remains within the expanded range.

2.3.4.4 Bravo-17

2.3.4.4.1 Land Withdrawal and Acquisition

Under Alternative 1, approximately 178,013 acres (176,977 acres of BLM-administered lands and 1,036 acres of non-federal lands) would be withdrawn or acquired to expand the B-17 range to the south (Figure 2-3), increasing its total area to approximately 232,800 acres. Convoy routes, military vehicle training routes, or ground target areas would occupy approximately 3,000 acres (Figure 2-3).

2.3.4.4.2 Public Accessibility

Currently, all uses listed in Table 2-2 are allowed on the non-private lands requested for withdrawal and proposed for acquisition. Under Alternative 1, the entire B-17 range would be closed to public use (grazing, hunting, mining, solar/wind, utilities/ROWs, OHV use, camping/hiking, and special race events), except for Navy-authorized activities such as research/academic pursuits, ceremonial or cultural site visits, or regulatory or management activities (e.g., BLM, USFWS, local government, or NDOW activities) (Table 2-2). The WDZ proposed for training activities at B-17 would extend over State Route 839 (see Section 2.3.4.4.4, Road and Infrastructure Improvements to Support Alternative 1 1). For public safety purposes, the Navy is proposing to reroute the portion of State Route 839 that would overlap with the proposed expansion area, subject to follow-on NEPA analysis of environmental impacts, as discussed in Section 2.3.2 (Alternative 1 – Modernization of the Fallon Range Training Complex).

2.3.4.4.3 Construction

Under Alternative 1, the following construction activities would occur at B-17:

- The Navy would construct one target maintenance building and one vehicle maintenance building (approximately 60 feet by 100 feet pre-engineered metal buildings) on existing disturbed B-17 lands, near the existing entry gate on State Route 839 (Figure 2-3). The Navy proposes to connect to existing aboveground powerlines to supply power to the buildings. The Navy would install heat and evaporative cooling systems, install a septic system, and develop a water well to supply potable water. The Nevada Department of Environmental Protection would review and approve the wastewater collection and disposal system design if the overall system or any eventual post-treatment discharge would be into Waters of the U.S. The Navy would request and obtain any necessary water rights from the Nevada Division of Water Resources, or purchase existing and valid water rights, before implementing any alternative discussed in or based on this EIS. The Navy would also install a tank and fire pump for fire-water storage if it were to decide that fire suppression is necessary during either construction or future operation. The Navy would use existing roads and not construct new access roads to the maintenance buildings.
- The Navy would install two communication towers within the proposed expansion area west of State Route 839, at locations compatible with military training. The communications towers would likely be solar powered, not require fiber-optic cabling, and be accessible by existing dirt roads from State Route 839.
- The Navy would construct new convoy routes, military vehicle training routes, and ground target areas on approximately 3,000 acres of B-17 (Figure 2-3). The Navy would install new targets and continue to use existing targets in the existing B-17.
- The Navy would fence the perimeter of the proposed expansion lands using approximately 75 miles of wildlife friendly configured four-wire fencing (final length would depend on topography and final routing) with eight 20-foot double swinging gates for access (Figure 2-3) and signage placed at regular intervals. Spacing of wires would be configured appropriately for the wildlife in the area. The configuration of fencing would be evaluated to accommodate the local area wildlife (bighorn-sheep-friendly versus pronghorn-friendly fencing configurations). Installation of fencing would follow recommendations described in BLM's Handbook 1741-1 and Nevada Revised Statute (NRS) 569.431 through NRS 569.471, such as avoiding bulldozer clearing or other major soil-disturbing methods. For analysis purposes, it is expected that two crews would take approximately six months to install perimeter fencing. After installation is complete, the Navy would incrementally remove the interior fencing within the expanded B-17 range.

2.3.4.4.4 Road and Infrastructure Improvements to Support Alternative 1

Relocate State Route 839

Under Alternative 1, the WDZ proposed for training activities at B-17 would extend over approximately 24 miles of State Route 839. As a result, the Navy is proposing, for public safety purposes, to reroute the portion of State Route 839 that would overlap with the proposed expansion area. Such proposed rerouting would be subject to follow-on NEPA analysis, as discussed above at Section 2.3.2 (Alternative 1 – Modernization of the Fallon Range Training Complex. The Navy proposes the concept of a new road section outside of the requested withdrawal area in one of three notional relocation corridors (Figure 2-3). All three corridors cross public lands managed by BLM and could potentially improve vehicle access

to these areas. The Navy would seek funding from Congress to pay for relocation of the road. Funds received would be used by the Federal Highway Administration, in cooperation with the Nevada Department of Transportation, to plan, design, and construct the replacement road segment. NEPA documentation would be completed by the Federal Highway Administration prior to any road construction. To facilitate constructing this supporting road and closing State Route 839, NDOT would need to submit an application to BLM, or other land managers, for the ROWs for any proposed new road section. The Navy would support, fund, and participate in any such NEPA analysis.

NDOT would ensure that construction of any new route is complete before closing any portion of the existing State Route 839, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing State Route 839 unless and until any such new route has been completed and made available to the public.

Potential routes and project specifics would not be identified and analyzed until after the Record of Decision for this EIS is signed. However, in general, any replacement road section would have similar specifications to State Route 839. The Navy has preliminarily identified the following three options to relocate the road:

- Option 1 would reroute State Route 839 approximately 27.5 miles along existing road/trails from U.S. Route 95 (south of the city of Fallon) to State Route 839, just south of the Rawhide mine (Figure 2-1). Rerouting State Route 839 would change traffic flow from a north/south direction to an east/west direction along the 27.5-mile stretch. This route would traverse land managed by BLM and by the Walker River Paiute Tribe. Coordination and formal consultation with the Indian Tribe and the Bureau of Indian Affairs would be required before constructing the road.
- Option 2 would reroute the existing State Route 839 at the U.S. Route 50 intersection to approximately 23.5 miles of existing roads west of the B-17 Range (Figure 2-1). Unlike Option 1, this route would maintain a primarily north/south traffic pattern for State Route 839. This new route would be approximately 23.5 miles long and traverse land managed by BLM, which is available for multiple uses.
- Option 3 would reroute the existing State Route 839 at the U.S. Route 50 intersection to approximately 36 miles of existing roads along the existing Paiute Pipeline route (Figure 2-3). This new route would traverse public land managed by BLM, Navy (e.g., B-19), and Bureau of Reclamation.

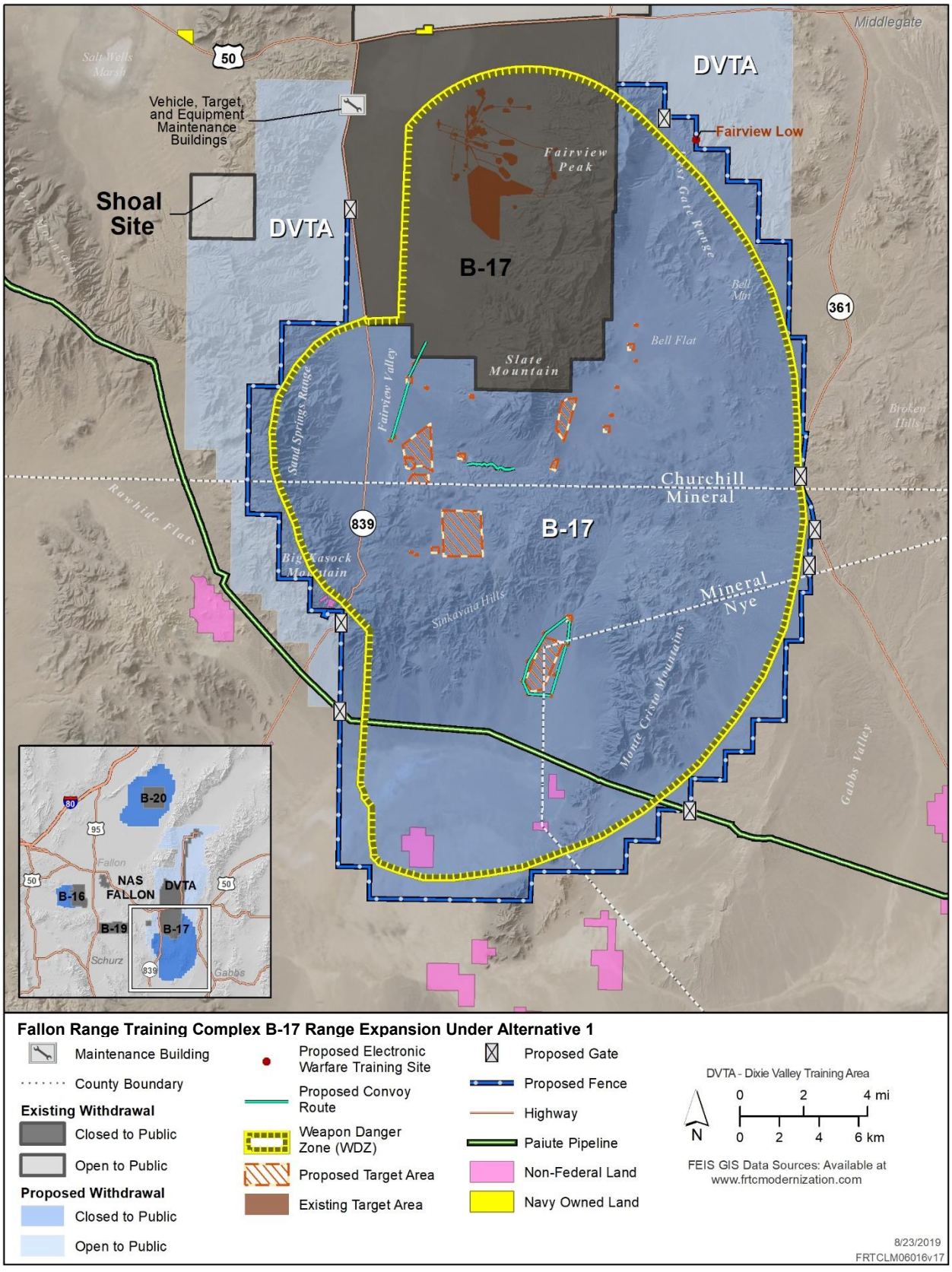

Figure 2-3: Fallon Range Training Complex B-17 Expansion Under Alternative 1

Relocate Paiute Pipeline

Under Alternative 1, the Navy would purchase the approximately 12 miles of the existing Paiute Pipeline south of the proposed expansion area of B-17. The Paiute Pipeline relocation segment would include the same specifications as the existing pipeline. The Navy would purchase and fund relocation of that portion of the pipeline. A ROW application submitted to the BLM by the pipeline owner would formally identify any proposed reroute. Site-specific environmental analysis and NEPA planning would be required before any potential relocation of the pipeline could occur. Using funds provided by the Navy, the pipeline owner would be responsible for planning, designing, permitting, and constructing any realignment of the pipeline. The Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing pipeline unless and until any such re-routing of the pipeline has been completed and made available to the pipeline owner. The BLM would have decision authority with respect to any proposed final routing subsequent to completion of site-specific environmental analysis.

2.3.4.5 Bravo-20

2.3.4.5.1 Land Withdrawal and Acquisition

B-20's primary use is air-to-ground delivery of live munitions to a variety of targets. Under Alternative 1, B-20 would expand in all directions, growing by approximately 180,329 acres (Table 2-1) and increasing in total size to approximately 221,334 acres. This expansion would include approximately 3,200 acres of land currently withdrawn by USFWS as a portion of the 17,848-acre Fallon National Wildlife Refuge. The Navy is not proposing to develop targets in the refuge. Due to the safety concerns associated with being within a WDZ, those portions of the refuge lands would be closed to the public. The Navy anticipates entering into an agreement (Memorandum of Understanding [MOU]) with the USFWS, to allow the continued management of portion of the Fallon National Wildlife Refuge within B-20 to be closed to all public access, but to continue to be managed as a wildlife refuge.
Under Alternative 1, expanding B-20 would allow for an additional 1,450 acres for target areas for Naval Aviation Advanced Strike Warfare and Large Force Exercise training (Figure 2-4).

2.3.4.5.2 Public Accessibility

Currently, all activities listed in Table 2-2 are allowed on public lands requested for withdrawal and proposed for acquisition. Under Alternative 1, the majority of B-20 withdrawn and acquired lands would be closed to public use (grazing, hunting, mining, solar/wind, utilities/ROWs, OHV use, camping/hiking, and special race events), except for Navy-authorized activities such as ceremonial or cultural site visits, or regulatory or management activities (e.g., BLM, NDOW, USFWS). In addition, the B-20 Navy Access Road (known locally as Pole Line Road) would be closed to public access.

Since the proposed WDZ for B-20 lies immediately west of East County Road, the Navy proposes that East County Road and approximately 300 acres of requested withdrawal land east of East County Road would remain open to the public.

The Navy anticipates entering into an agreement with the USFWS to ensure that the 3,200 acres of the Fallon National Wildlife Refuge requested for withdrawal be managed consistently with the goals and objectives of the refuge (U.S. Fish and Wildlife Service, 2002) but closed to public access to ensure human health and safety.

2.3.4.5.3 Construction

Under Alternative 1, the following construction activities would occur at B-20:

- The Navy would construct one vehicle, target, and equipment maintenance building (approximately 60 feet by 100 feet pre-engineered metal building) on proposed B-20 lands just inside of the new access gate located on the west side of B-20 along the Navy B-20 access road. Approximately 5 acres of land surrounding this building would be graded and used for vehicle parking and staging. Existing aboveground powerlines would serve the building. The Navy would install heat and evaporative cooling systems and a restroom and toilet with septic system.
- The Nevada Department of Environmental Protection would review and approve the wastewater collection and disposal system design if the overall system or any eventual post-treatment discharge would be into Waters of the U.S. Potable water would be supplied to the building through a water well, though well design parameters have not been determined.
- The Navy would either purchase existing and valid water rights or request and obtain any necessary water rights from the Nevada Division of Water Resources before implementing any alternative discussed in or based on this EIS.
- The Navy would also install a tank and fire pump for fire-water storage if it were to decide that fire suppression is necessary during either construction or future operation.
- The Navy would not construct new roads.
- Requested withdrawal lands would be fenced (approximately 90 miles) with wildlife friendly configured four-wire fencing (and which complies with NRS requirements) with five 20-foot double swinging gates installed to provide controlled access (Figure 2-4) into the B-20 range; the gates will not prevent use of East County Road. Spacing of wires would be configured appropriately for the wildlife in the area.
- Signs would be posted at regular intervals.
- Fencing installation would follow recommendations described in BLM's Handbook 1741-1 (Fencing), such as avoiding bulldozer clearing or other major soil-disturbing methods.
- Any area requiring clearance for fence installation would use the most practicable and unobtrusive methods to minimize soil and vegetation disturbance.
- For analysis purposes, it is anticipated that two crews would take approximately six months to install the fencing. Once installation is complete, the Navy would incrementally remove the fencing that remains within the new B-20 range perimeter.

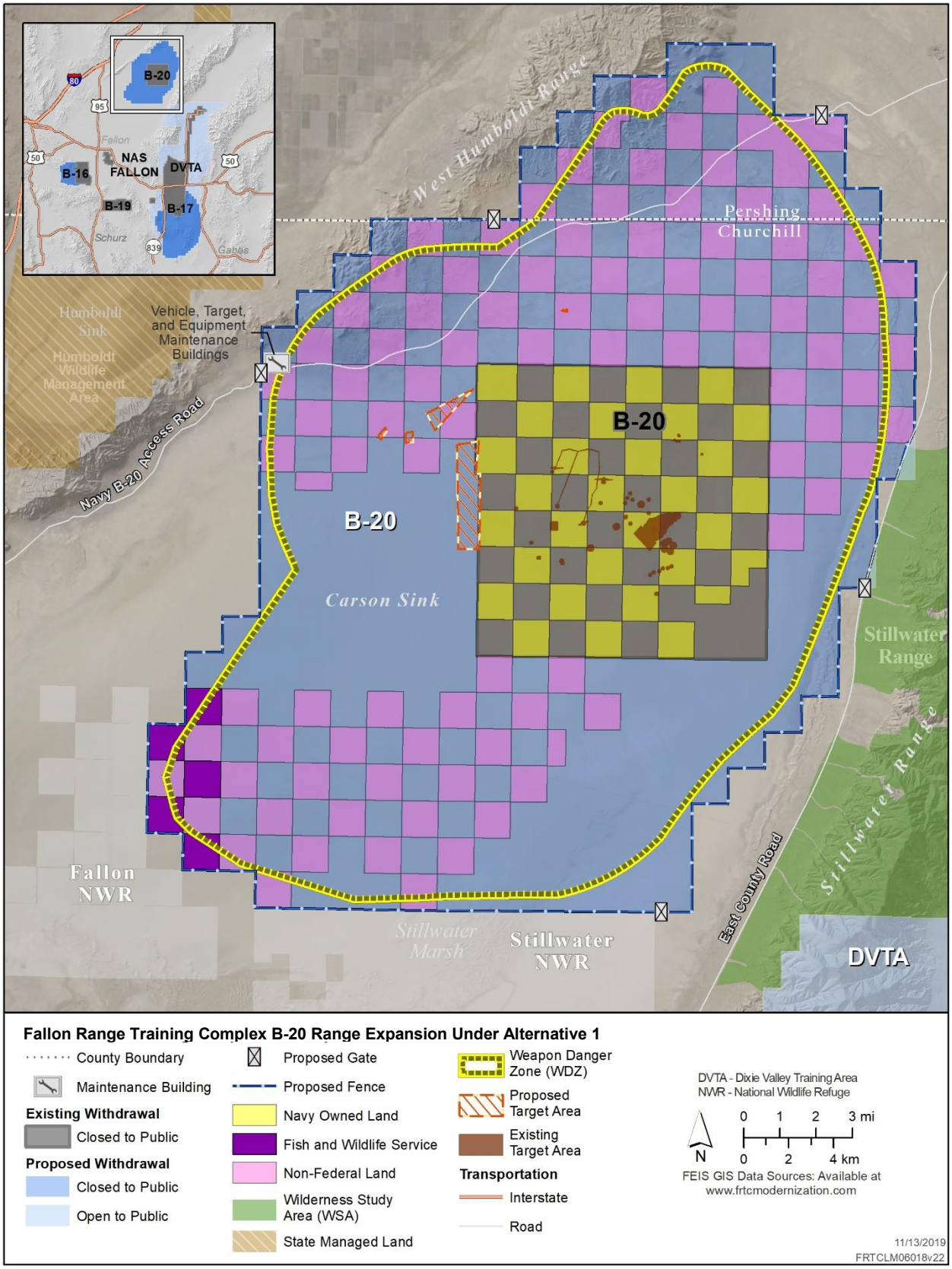

Figure 2-4: Fallon Range Training Complex B-20 Expansion Under Alternative 1

2.3.4.6 Dixie Valley Training Area

2.3.4.6.1 Land Withdrawal and Acquisition

What is an Area of Critical Environmental Concern?

Area of Critical Environmental Concern (ACEC) designations highlight areas that need special management attention to protect important historical, cultural, and scenic values, or fish and wildlife or other natural resources. ACECs can also be designated during the land-use planning process to protect human life and safety from natural hazards.

Under Alternative 1, the DVTA would expand in all directions by approximately 293,343 acres (Figure 2-5), increasing its total size to approximately 370,903 acres. The proposed expansion overlaps portions of the Clan Alpine Mountain Wilderness Study Area (WSA), the Job Peak WSA, the Stillwater Range WSA, and the BLM-proposed Fox Peak ACEC (proposed under Alternative E of the Carson City District Draft Resource Management Plan). Under Alternative 1, Congressional withdrawal legislation would remove the WSA designation from those portions of the Clan Alpine WSA, Job Peak WSA, and Stillwater WSA within the DVTA in order to accommodate training activities in the DVTA. Alternative 1 would also propose removing a portion of the proposed Fox Peak ACEC designation described in the *Carson City Draft Resource Management Plan* 2014 (Preferred Alternative E) within the DVTA. The BLM would change the boundaries of the Fox Peak ACEC to remove those areas within the DVTA. The BLM would continue managing the remaining WSA portions of Clan Alpine WSA, Job Peak WSA, and Stillwater Range WSAs as WSAs.

2.3.4.6.2 Public Accessibility

Under Alternative 1 ground training would continue to occur on existing roads and trails, and the lands would remain open for certain public uses and land management activities. Allowable public uses of the lands would not change from current conditions, including hunting, camping, hiking, fishing, OHV use, site visits, and grazing. However, under Alternative 1, the Navy would not allow mining, geothermal development, new or expanded utility corridors or new utilities, or other renewable energy (solar or wind) projects. The current utility corridor would remain in place. The Navy would be responsible for the inventory, monitoring, and proper handling of any Abandoned Mine Land features on Navy property. The Navy would follow Nevada's Bureau of Mines and Geology procedures for management of Abandoned Mine Lands on the DVTA.

The existing hunting program requirements that would be applied to proposed DVTA lands include

- hunting within the DVTA managed by NDOW,
- seasonal hunting activities and hunting dates established by NDOW, and
- continuous availability of Dixie Valley land access for authorized hunting programs.

2.3.4.6.3 Construction

Alternative 1 would create three Electronic Warfare sites: North Job Peak, 11-Mile Canyon, and Fairview Low (Figure 2-5). Each site would be located on a small (up to 5 acres) flat parcel of land to minimize soil disturbance and grading activities. The Navy would fence each Electronic Warfare site with 8-foot chain link fencing and a 16-foot swing gate. A mobile emitter placed at each site would minimize the amount of construction necessary (Figure 2-6). The Navy would use existing trails and roads to transport construction materials to the new Electronic Warfare sites and provide service access.

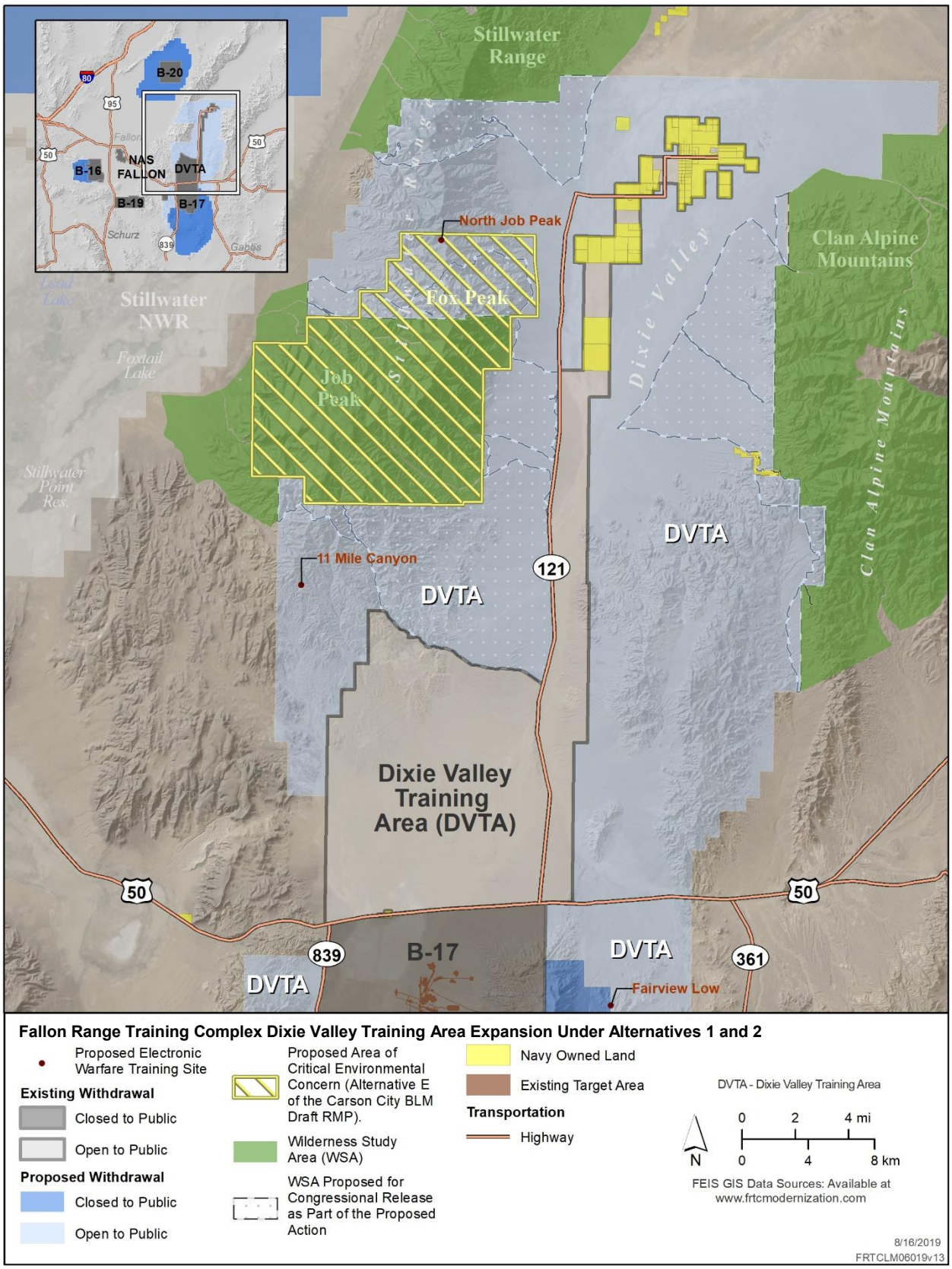

Figure 2-5: Fallon Range Training Complex Dixie Valley Training Area Expansion Under Alternatives 1 and 2

Figure 2-6: Example of Electronic Warfare Site with Mobile Transmitter

2.3.4.7 Special Use Airspace Modifications

Except for a slight expansion beyond the current northern boundary of the FRTC (Table 2-4 and Figure 2-7), the requested airspace modifications would be within the existing boundary of the FRTC airspace and consist of reorganizing airspace blocks and redefining airspace ceilings and floors and establishing new airspace. The objective of these changes is to use airspace more efficiently during Large Force Exercises while providing civilian aviators the maximum access possible, and maintaining priority for emergency flights through the airspace. SUA would be reconfigured horizontally and would also increase vertical tactical airspace by 22 percent. Table 2-4 shows the existing airspace configurations and the proposed changes.

Table 2-4: Proposed Special Use Airspace Changes

Current SUA	Proposed SUA	Current Floor/Ceiling[1]	Proposed Floor/Ceiling[1]	Proposed Boundary Changes	Other Proposed Changes
Restricted Areas					
R-4803	R-4803	Up to 17,999 feet MSL	No change	Increase in horizontal size to the west, to match associated land range changes.	Provides expanded live-fire training capability in B-16.
R-4804A[2]	R-4804A[2]			No Change	-
R-4804B	R-4804B	18,000 feet MSL or as ATC Assigned			
-	R-4804C	-	35,000 feet MSL to 50,000 feet MSL	No Change	-

Table 2-4: Proposed Special Use Airspace Changes (continued)

Current SUA	Proposed SUA	Current Floor/Ceiling[1]	Proposed Floor/Ceiling[1]	Proposed Boundary Changes	Other Proposed Changes
Restricted Areas (continued)					
-	R-4805A	-	Surface to 17,999 feet MSL	Abuts R-4804 and extends airspace to the south to encompass the new B-17	-
-	R-4805B	-	18,000 feet MSL to 50,000 MSL		
R-4810	R-4810	Surface to 17,000 feet MSL	No Change	No Change	-
-	R-4810B	-	17,000 feet MSL to 17,999 feet MSL	Established to increase safety and improve efficiency by mirroring the existing R-4812, and the modifications to the adjoining Ranch MOA	
R-4812[2]	R-4812[2]	Surface to 17,999 feet MSL	No Change	No Change	-
R-4813A	R-4813A	Surface to 17,999 feet MSL	No Change	No Change	-
R-4813B	R-4813B	18,000 feet MSL to 34,999 feet MSL	No Change	No Change	
-	R-4813C	-	35,000 feet MSL to 50,000 feet MSL	No Change	
-	R-4814	-	Surface to 29,000 feet MSL	Established to match associated B-20 range land changes to optimize training.	
-	R-4816S (Low)	-	Surface to 499 feet AGL[4]	Established to allow better use of current associated proposed land range changes in the Dixie Valley Training Area.	
R-4816N	R-4816N (Low)	-	Surface to 1499 feet AGL[4]	Established to allow better use of current associated proposed land range changes in the Dixie Valley Training Area.	
R-4816N	R-4816N	1,500 feet AGL to 17,999 feet MSL	No Change	-	
R-4816S	R-4816S	500 feet AGL up to 17,999 feet MSL	No change	-	
Military Operations Areas (MOA)					
Churchill High	Churchill	9,000 feet MSL/ Up to 17,999 feet MSL	500 feet AGL/ Up to 17,999 feet MSL	No change	
Churchill Low		500 feet AGL/9,000 feet MSL			

Table 2-4: Proposed Special Use Airspace Changes (continued)

Current SUA	Proposed SUA	Current Floor/Ceiling[1]	Proposed Floor/Ceiling[1]	Proposed Boundary Changes	Other Proposed Changes
Military Operations Areas (MOA) (continued)					
Fallon North 1	Fallon North 1	MOA: 100 feet AGL up to 17,999 feet MSL.	No change	Each of the Fallon North 1 to 3 MOAs northern borders would be expanded slightly to the North.	
Fallon North 2	Fallon North 2	ATCAA: 18,000 feet MSL to (as coordinated).			
Fallon North 3	Fallon North 3				
Fallon North 4	Fallon North 4	MOA: 200 feet AGL up to 17,999 feet MSL.		The Fallon North 4 MOA northern border would be expanded to the North.	
		ATCAA: 18,000 feet MSL to (as coordinated).			
Fallon South 1	Fallon South 1	MOA: 100 feet AGL up to 17,999 feet MSL.	No change	No change	
		ATCAA: 18,000 feet MSL to 50,000 feet MSL			
Fallon South 2	Fallon South 2	MOA: 100 feet AGL up to 17,999 feet MSL.		For the Fallon 2 through Fallon 5 MOA/ATCAAs, there are no changes to the airspace but they would be re-aligned in the NAWDC working areas through internal processes.	
Fallon South 3		ATCAA: 18,000 feet MSL to 50,000 feet MSL			
Fallon South 4	Fallon South 3	MOA: 200 feet AGL up to 17,999 feet MSL.			
Fallon South 5	-	ATCAA: 18,000 feet MSL to 50,000 feet MSL	-	-	
Ranch High	Ranch	9,000 feet MSL to 13,000 feet MSL	-	No change	Modify the altitudes of the Ranch Low and High to be combined into a single Ranch MOA
Ranch Low		500 feet AGL to 9,000 feet MSL	500 feet AGL to 17,999 feet MSL		
Reno	Reno	MOA: 13,000 feet MSL up to 17,999 feet MSL.	MOA: 1,200 feet AGL to 17,999 feet MSL.	-	Chaff and flare release capability. Supersonic Capable above 30,000 feet
		ATCAA: 18,000 feet MSL to 31,000 feet MSL.	ATCAA: 18,000 feet MSL to 31,000 feet MSL. Up to 40,000 feet MSL on request.		

Table 2-4: Proposed Special Use Airspace Changes (continued)

Current SUA	Proposed SUA	Current Floor/Ceiling[1]	Proposed Floor/Ceiling[1]	Proposed Boundary Changes	Other Proposed Changes
Military Operations Areas (MOA) (continued)					
-	Ruby	-	MOA: 1,200 feet AGL up to 17,999 feet MSL.	New MOA/ATCAA (formerly Diamond North ATCAA)	-
		-	ATCAA: 18,000 feet MSL to 28,000 feet MSL.		
-	Zircon	-	MOA: 1,200 feet AGL up to 17,999 feet MSL.	-	New MOA under existing ATCAA
		ATCAA: 18,000 feet MSL to 50,000 feet MSL.	No change		
-	Diamond	-	1,200 feet AGL up to 17,999 feet MSL.	Southeast corner of current Diamond ATCAA	Northern Diamond ATCAA renamed Ruby ATCAA
		ATCAA: 18,000 feet MSL to 29,000 feet MSL.	18,000 feet MSL to 50,000 feet MSL or as assigned.		
-	Duckwater	-	MOA: 200 feet AGL up to 17,999 feet MSL.	The borders would be modified horizontally to better align with local air traffic routes.[4]	New MOA under existing ATCAA
		ATCAA: 18,000 feet MSL to 25,000 feet MSL.	ATCAA: 18,000 feet MSL to 50,000 feet MSL.		
-	Smokie	-	MOA: 200 feet AGL up to 17,999 feet MSL. ATCAA: 25,000 feet MSL to 29,000 feet MSL		New MOA under existing ATCAA
		ATCAA: 18,000 feet MSL to 25,000 feet MSL.	-		

[1]MSL = Mean Sea Level
[2]Excluding that portion of the VFR corridor from 2,000 AGL up to 8,500 MSL along U.S. Route 50.
[3]AGL = Above Ground Level
[4]Current alignment of Smokie and Duckwater ATCAAs are east and west. Navy proposes (with FAA concurrence) to realign Smokie and Duckwater in a north/south alignment with Duckwater to the north and Smokie to the south. These changes would provide better alignment with local FAA routes in the area.
Notes: MOA = Military Operations Area, SUA = Special Use Airspace, ATCAA = Air Traffic Control Assigned Airspace, NAWDC = Naval Aviation Warfighting Development Center

Figure 2-7 shows a summary of proposed airspace changes, while Figure 2-8 through Figure 2-10 show the individual components (Restricted Area, MOA, and Air Traffic Control Assigned Airspaces [ATCAAs]) of the airspace under Alternative 1. MOAs are designated to contain non-hazardous activities, including, but not limited to, air combat maneuvers, air intercepts, and low-altitude tactics. ATCAAs are defined airspace that is available for military training use but are only activated by the FAA when requested by the military. ATCAAs most often overlie MOAs but can also be adjacent to a MOA. Collectively, the horizontal boundaries of the MOAs and ATCAAs represent the boundaries of the FRTC Study. Restricted Areas separate activities considered hazardous to other aircraft and typically occur within a MOA (Section 3.6.2.1, Special Use Airspace, provides a detailed description of airspace types).

Potential adversaries are increasingly using sophisticated anti-aircraft systems with the capability to threaten our aircrews at much greater ranges. As a result, the FRTC modernization includes a proposal to increase the volume of the supersonic training area by laterally expanding the area (including "low supersonic") eastward into the proposed Zircon and Ruby MOAs/ATCAAs. Supersonic operating area (SOA) A (above 30,000 feet MSL) would extend into the Duckwater Air Traffic Control Assigned Airspaces and SOA B (11,000–30,000 feet MSL) would be extended to the east horizontally, into the Zircon and Ruby MOA/Air Traffic Control Assigned Airspaces (though in the Ruby MOA/Air Traffic Control Assigned Airspace the ceiling is proposed to be 28,000 feet MSL). The Reno MOA would also be modified to support supersonic activities above 30,000 feet MSL.

As a general policy, sonic booms shall not be generated below 30,000 feet of altitude. However, deviations from this general policy are authorized for tactical mission training that requires supersonic speeds at lower altitudes. For example, mission-critical training activities in both air-to-air and air-to-ground combat tactics often require supersonic flight at lower altitudes in order to practice evading threats such as enemy surface-to-air and air-to-air missiles. When required, this mission-critical training would be conducted in specified areas, and may be at altitudes as low as 11,000 feet above MSL.

Under Alternative 1, supersonic activities would be redistributed throughout the expanded SOAs and larger area within the FRTC airspace would experience direct overflights of a supersonic aircraft. While a greater area may be subject to sonic booms with the expansion of the SOAs, there is no proposed increase in the number of supersonic activities; therefore, the chance of experiencing a sonic boom in any one location would actually be lower than under current conditions.

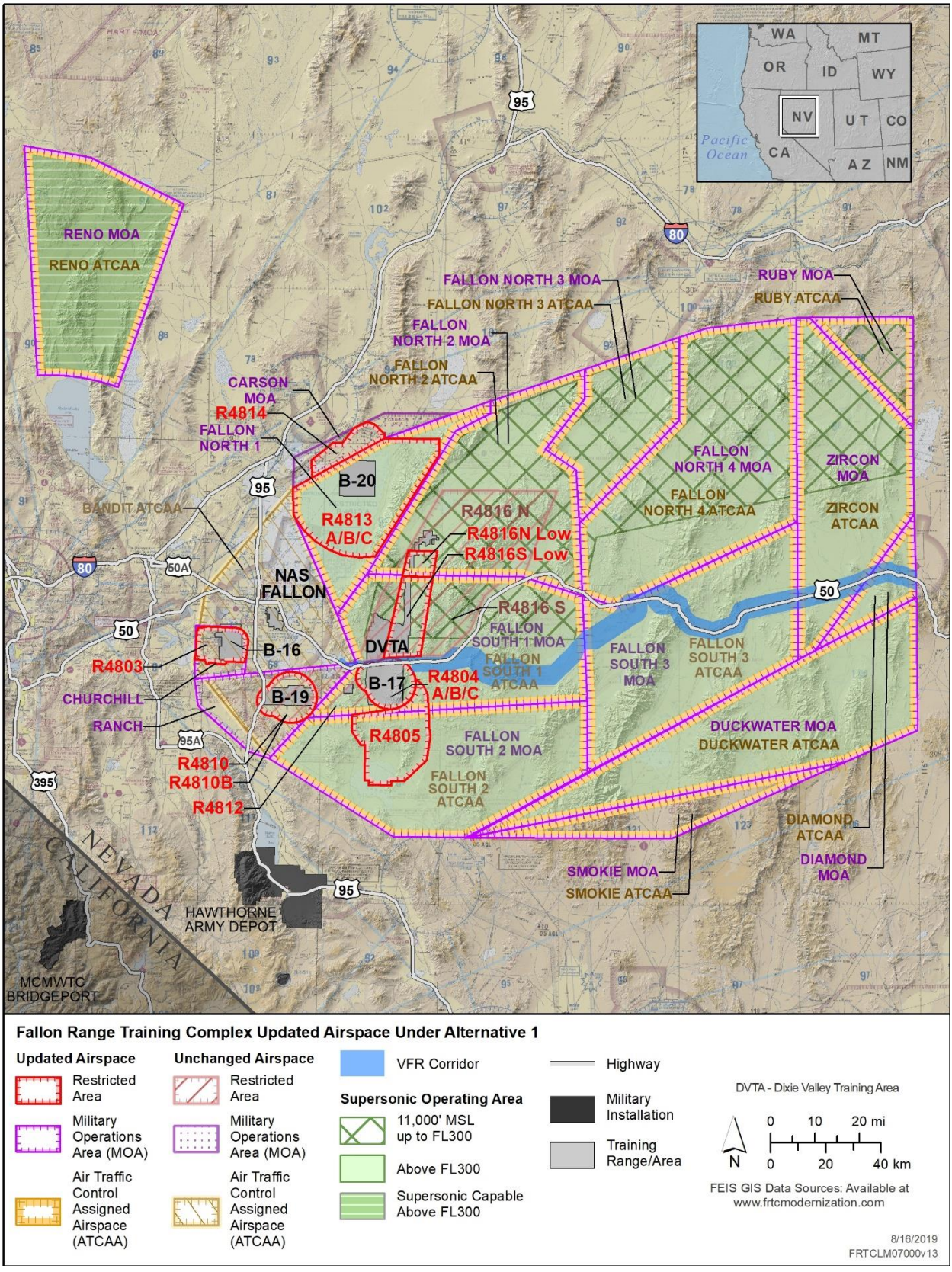

Figure 2-7: Fallon Range Training Complex Updated Airspace Under Alternative 1

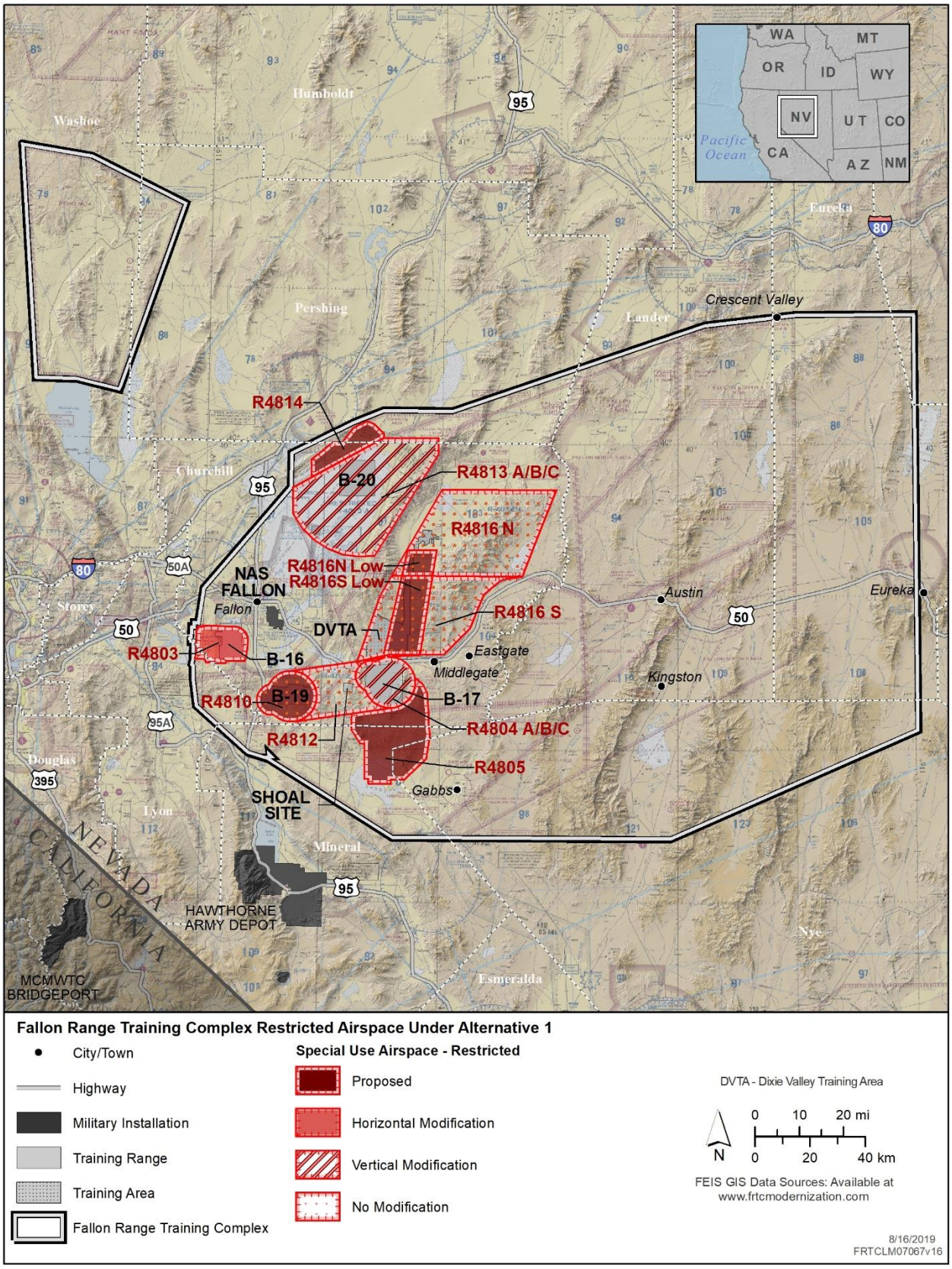

Figure 2-8: Fallon Range Training Complex Restricted Airspace Under Alternative 1

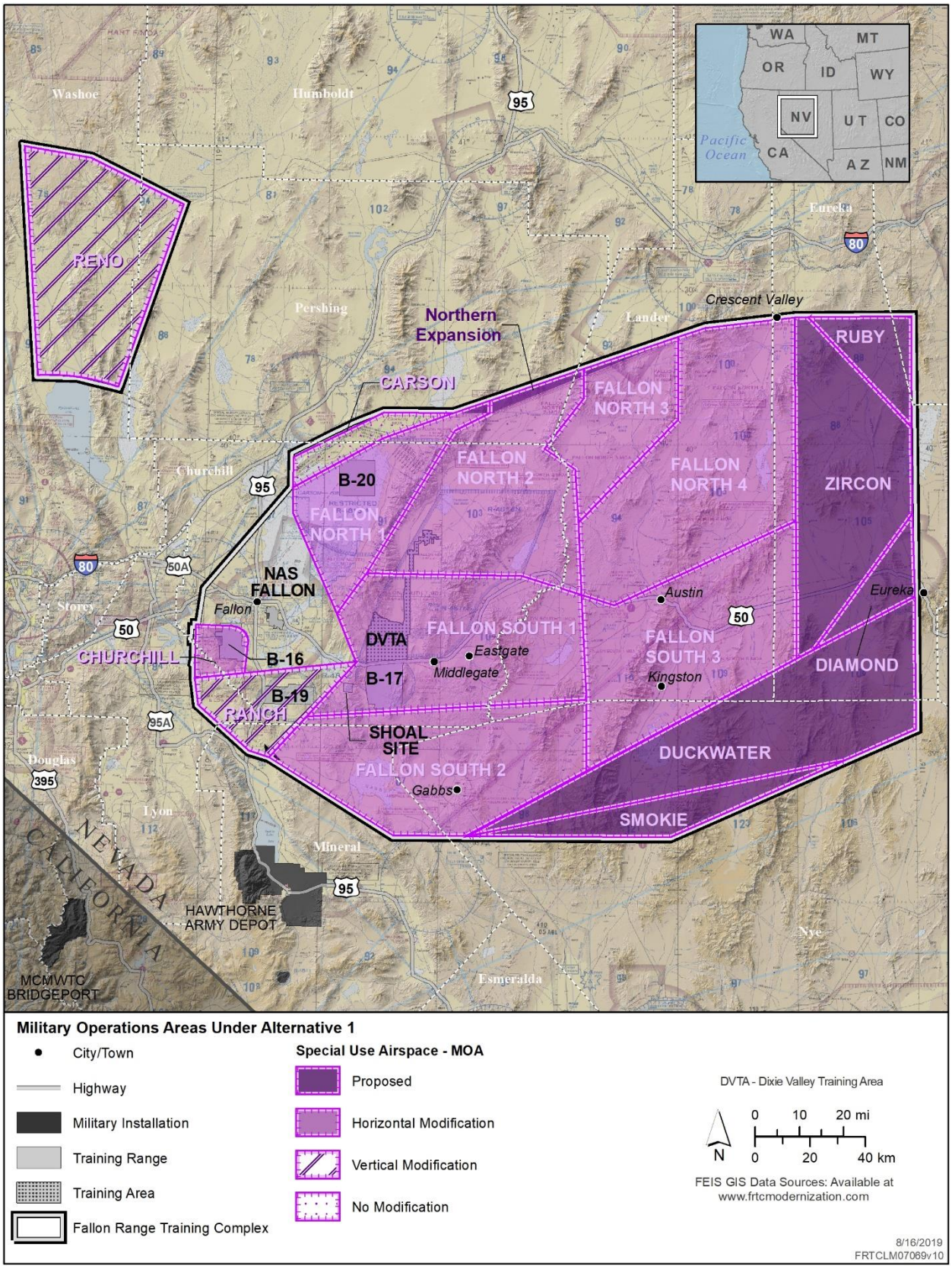

Figure 2-9: Military Operations Areas Under Alternative 1

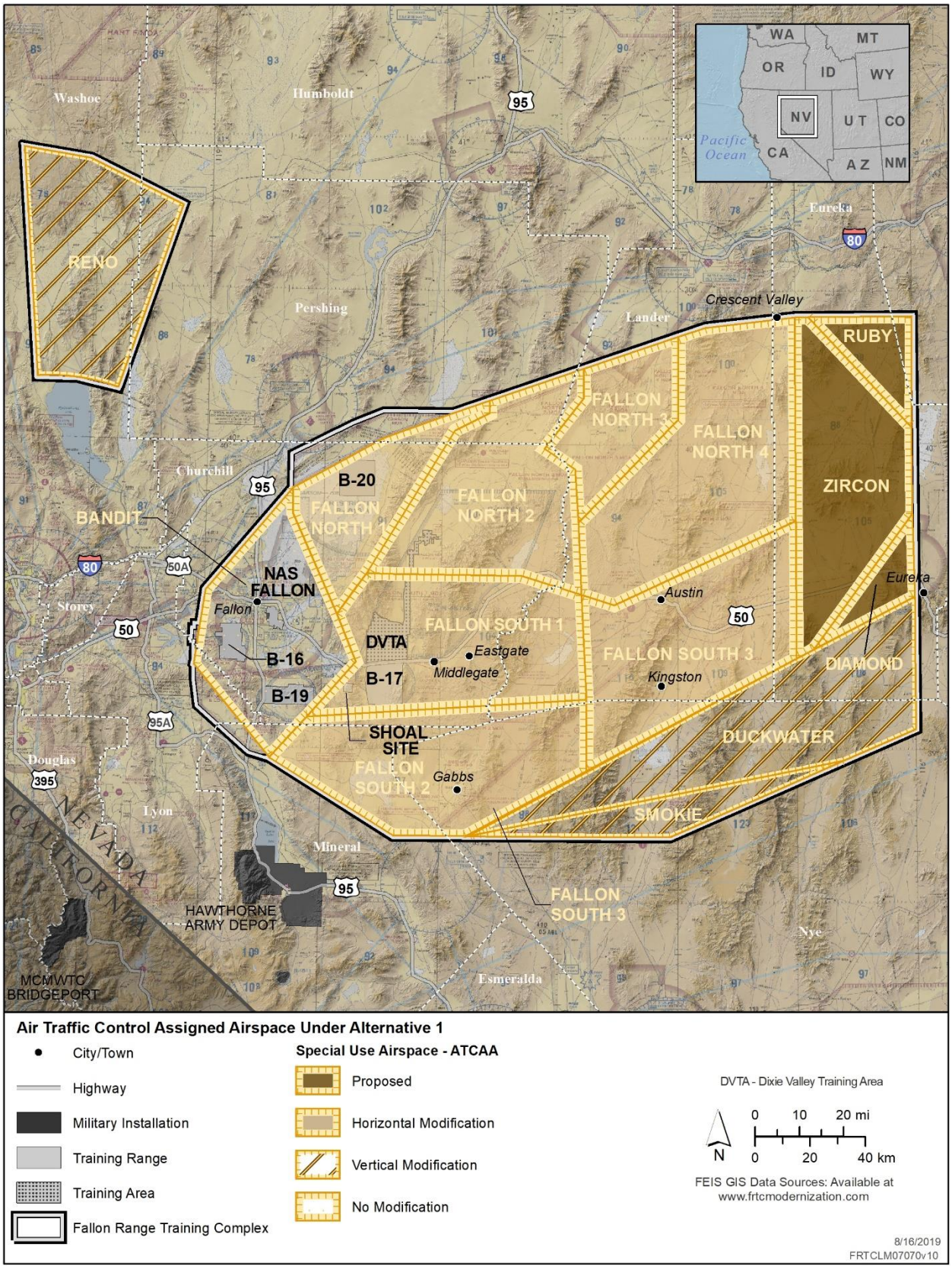

Figure 2-10: Air Traffic Control Assigned Airspace Under Alternative 1

2.3.5 Alternative 2 – Modernization of Fallon Range Training Complex with Managed Access

The Navy issued the Notice of Intent for this EIS without defined alternatives. The purpose was to collect responses from the public and stakeholders regarding potential impacts, concerns, and suggestions for other alternatives. The public, including interested individuals, government agencies and officials, Indian Tribes, and nongovernmental organizations, submitted comments during the public scoping period. Following the public scoping period, the Navy reviewed submitted comments and conducted additional meetings with various stakeholders to discuss potential alternatives to the general Proposed Action (as reflected in Alternative 1). Many comments indicated the desire to have an alternative without restrictions or with a reduced level of restrictions on possible use for activities. Similar to Alternative 1, under Alternative 2, the Navy would still expand bombing ranges to accommodate the larger safety zones needed to accommodate standoff weapons training (Table 2-1). The Navy would also still expand the DVTA to enhance the safety of aviators during low-altitude and nighttime non-weapons training events, as well as offer a more realistic non-weapons environment for Electronic Warfare, convoy training, and search and rescue training. Under Alternative 2, the Navy would allow for certain public activities on certain areas of B-16, B-17, and B-20 at designated times when the ranges would not be operational (i.e., typically weekends, holidays, and when closed for scheduled maintenance).

2.3.5.1 Land Withdrawal and Acquisition

Alternative 2 would have the same withdrawals, acquisitions, and airspace changes as proposed in Alternative 1 (Table 2-1).

2.3.5.2 Public Accessibility

Similar to Alternative 1, Alternative 2 would continue to allow certain public uses within specified areas of B-16, B-17, B-19, and B-20 (ceremonial, cultural, or academic research visits; and land management activities) when the ranges are not operational (typically weekends, holidays, and when closed for maintenance) (Table 2-5). Simpson Road at B-16 and a small portion of land south of Simpson Road would be open to public use under Alternative 2 (Figure 2-11). Sand Canyon Road would continue to be closed under Alternative 2. Alternative 2 would also continue to allow grazing, hunting, OHV usage, camping, hiking, site and ceremonial visits, and large event off-road races at the DVTA. Additionally, under Alternative 2 the Navy would allow the following activities:

- Hunting (see Section 2.3.5.2.2, Hunting Activities) would be conditionally allowed on designated portions of B-17,
- geothermal and leasable material exploration would be conditionally allowed on the DVTA (see Section 2.3.5.2.3, Mining Activities),
- and large event off-road races (see Section 2.3.5.2.6, Off-Highway Vehicle Activities) would be allowable on all ranges subject to coordination with the Navy.

Allowing such public access would be more complex and challenging for the Navy. For example, the Navy would need to increase staffing and funding for management, coordination, and safety. However, Alternative 2 would still meet the Navy requirement to ensure that the FRTC possesses the present and future capabilities necessary to train and assess deploying forces for combat readiness, as reflected in the purpose of and need for the Proposed Action.

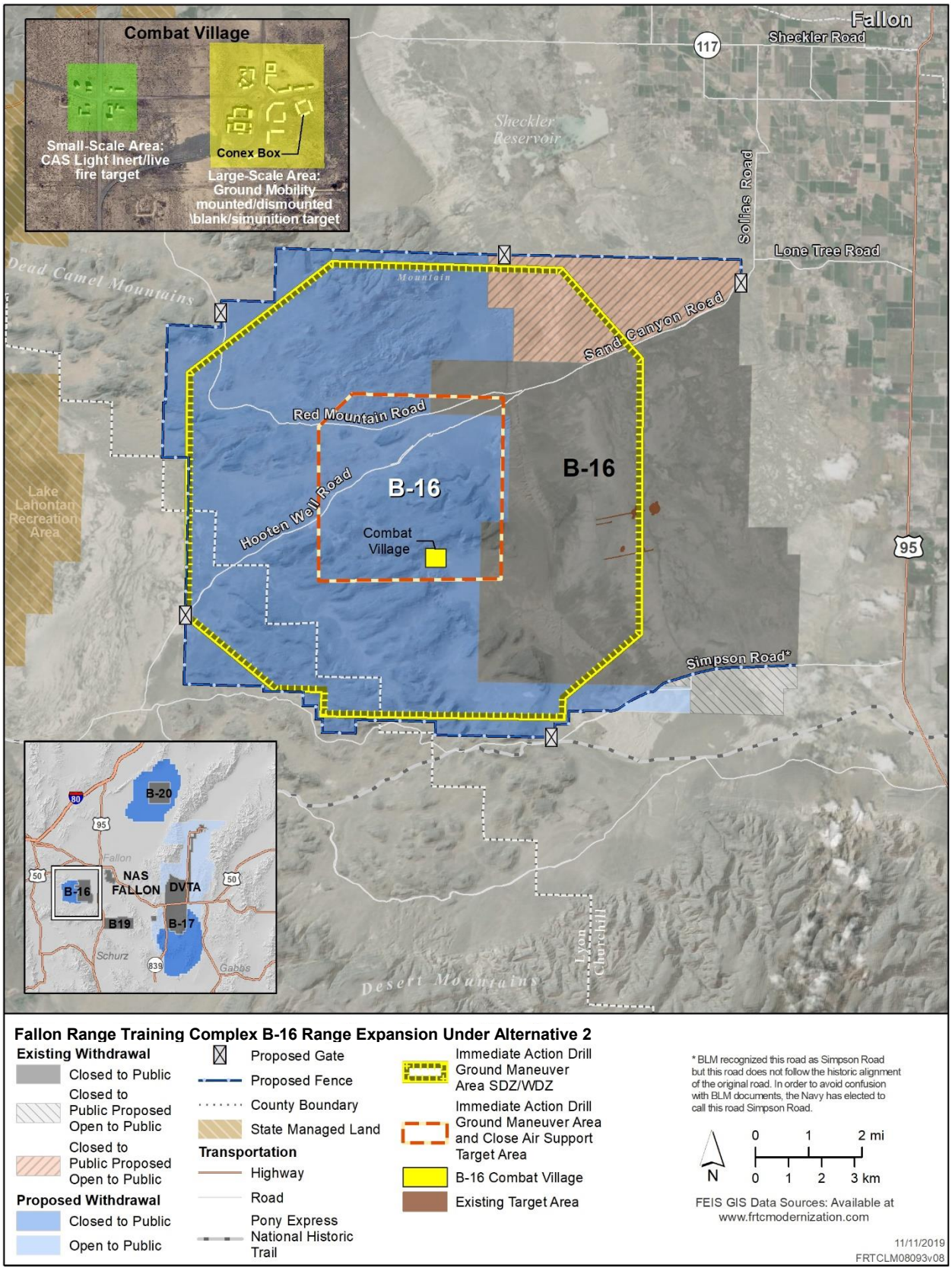

Figure 2-11: Fallon Range Training Complex B-16 Range Expansion Under Alternative 2

2.3.5.2.1 Grazing Activities

Under Alternative 2, grazing would not be available for the B-16, B-17, B-19, or B-20 ranges for safety reasons and for general incompatibility with the Navy's mission requirements (see Section 2.5.6.1, Livestock Grazing on Live-Fire [Bravo] Ranges, for a discussion on how the Navy developed this position). Similar to Alternative 1, the BLM would continue to permit and manage domestic livestock grazing activities within the proposed DVTA under Alternative 2.

Table 2-5: Alternative 2 Allowable Activities Within Range Boundaries

Area	Activity											
	Grazing	Hunting	Mining			Solar /Wind	Utilities /ROWs	OHV	Camping /Hiking	Site Visits (Ceremonial, Cultural, or Research)	Mgmt^ Access	Events (Races)
			Locatable	Leasable	Salable							
B-16	1	1	1	1	1	1	1	1	1	2	2	2
B-17	1	2+	1	1	1	1	1	1	1	2	2	2
B-19	1	1	1	1	1	1	1	1	1	2	2	2
B-20	1	1	1	1	1	1	1	1	1	2	2	2
DVTA	3	3	1	2*	2	1	2	3	3	3	3	3

Notes: 1. Grey = Activity Not Allowed. Public Safety concern. Closed to Public Access. 2. Yellow = Activity Allowable. Limited Public Access. 3. Green = No Restrictions. Open to Public Access. ROWs = Rights of Way
^ Mgmt = Management
* Geothermal mining only
+ Only bighorn sheep hunting would be allowed
The Navy would work with land managers that need access to ensure that their access is coordinated and compatible with military training activities on all ranges and in the DVTA.

2.3.5.2.2 Hunting Activities

Under Alternative 2, the Navy proposes to allow a bighorn sheep hunting program on designated portions of B-17. The Navy does not currently allow hunting on the B-16, B-19, or B-20 ranges for safety and security reasons and is not proposing to allow it in the proposed expansion areas for the B-16 and B-20 ranges under Alternative 2.

Hunting seasons on B-17 would operate on a not-to-interfere basis with operational training requirements. The Navy proposes to allow bighorn sheep hunting in the B-17 range to the maximum extent practicable, aiming to accommodate 15 consecutive days during the bighorn sheep hunting season, occurring from November to January. Safety considerations include unexploded ordnance sweeps, road blocks, signage for avoidance areas, and range operations control. The Navy and NDOW would manage the hunting program through a Memorandum of Agreement (see Appendix D, Memoranda, Agreements, and Plans, for a draft of such an agreement). Access and safety would be handled by the Navy, while all other hunting program-related management (e.g., number of tags, hunt seasons) would remain under NDOW control.

The Navy anticipates that proposed program requirements for hunting activities on B-17 would likely include the following policies (which would be reviewed annually), but with the goal of being flexible enough to allow maximum access possible for hunting on the FRTC while ensuring the Navy can meet mission requirements:

- Hunting program for bighorn sheep managed jointly by the Navy and NDOW in accordance with NDOW policies and reviewed annually. Annual review would provide for ongoing evaluation of compatible hunting opportunities and adaptive management of the hunting program; additional hunts and feasibility for opportunistic hunt access would be evaluated for compatibility with mission training requirements.
- Hunting activities remain compatible with mission training activities and operate on a not-to-interfere basis.
- Range access managed by a Controlled Access Program, with stipulations.
    - Hunters must complete ground safety training and sign an MOU for the hunting program.
    - Hunters must sign a waiver agreement releasing the Navy from any liability for injury to or death of hunters or hunting party members, or for damage to vehicles or equipment or other property of such persons.
    - Hunting party is limited to five persons, including the tag holder, on FRTC at any one time, with no member of the hunting party under 18 years of age.
    - Bombing range access procedures would be in accordance with Navy range policies.
    - A face-to-face Hunter Safety ground access brief would be required.
    - Prior scheduling would be required. Check-in and Check-out with Range Control would be mandatory for any access to the Bravo 17 range.
    - Hunters must remain clear of B-17 designated avoidance areas, as marked on maps to be provided to hunters during annual safety training. These areas would be determined annually based on range conditions and reviewed and updated by range operations and safety department. In general, avoidance areas would include targets and areas of known unexploded ordnance.
    - No pets, to include hunting dogs, would be allowed on B-17.

The Navy would also continue to allow all hunting opportunities at the DVTA. The stipulations listed above for hunting on B-17 would not apply to hunting activities within the DVTA. The Navy would defer to the NDOW annual hunting regulations and policies to identify hunting seasons within the DVTA. The Navy would apply existing program requirements for hunting activities to the proposed withdrawn lands at the DVTA under Alternative 2. As described for Alternative 1, the existing program requirements that would be applied to proposed DVTA lands include:

- Hunting within the DVTA managed by NDOW.
- Seasonal hunting activities and hunting dates established by NDOW.
- Continuous availability of Dixie Valley land access for authorized hunting.

2.3.5.2.3 Mining Activities

The Navy would not allow mining activities on existing or proposed expanded bombing ranges (B-16, B-17, B-19, or B-20) for safety reasons. Under Alternative 2, the Navy would not allow locatable or most leasable mining activities at the DVTA. Locatable minerals are those which, when found in valuable deposits, can be acquired under the General Mining Law of 1872, as amended. Examples of locatable minerals occurring on public lands within existing and requested withdrawal areas include, but are not limited to, those minerals containing gold, silver, tungsten, fluorite, copper, lead, and zinc. Leasable minerals include, but are not limited to, oil, gas, coal, oil shale, and geothermal resources (43 CFR 3000, and 3500). Salable minerals (mineral materials, 43 CFR 3600) are common varieties of sand, stone, gravel, pumice, pumicite, cinders, and clay.

Under Alternative 2, the Navy would allow salable mining activities and, subject to conditions established in conjunction with BLM leasing procedures, allow geothermal development west of State Route 121 in the DVTA. The Navy is currently proposing the following required design features for geothermal development:

- Allow the expansion of two ROWs adjacent to the current transmission corridor as close to current Terra-Gen line as possible.
- Recommended maximum width of permanent ROW is 90 feet each.
- Recommended maximum width of temporary ROW is 300 feet.
- Construct underground transmission line connection from the facility to existing transmission line ROW along State Route 121.
- Use compatible lighting with downward facing shades, lighting with frequency that doesn't "wash out" night-vision devices, and motion sensors to minimize light as appropriate
- Coordinate with Navy on frequency spectrum.
- Use cooling towers and other structures no higher than 40 feet.
- Avoid steam field piping blocking current access roads to/from State Route 121 and canyon area.
- Require a glint and glare analysis for photovoltaic solar/geothermal hybrid design, approved by the Navy, prior to construction.
- Coordinate all exploratory 's and construction activities with NAS Fallon.
- Coordinate with NAS Fallon for all temporary vertical obstruction safety lighting.
- Coordinate with NAS Fallon on the use of unmanned aerial vehicles used in the DVTA.

2.3.5.2.4 Solar and Wind Developments

Similar to Alternative 1, solar and wind development would not be allowed on the proposed bombing ranges (either existing ranges or proposed expansion areas) or in the DVTA, for safety reasons. The main conflicts between wind energy development hazards and low-flying aircraft include cultural lighting (i.e., manmade lighting), frequency spectrum interference, and the fact that such developments would inhibit radar operation. Wind turbines have extremely tall towers with large rotating blades that pose a hazard to flight safety and result in false radar returns and a cluttered radar environment. The main concern with solar development are hazards to low flying aircraft, glint and glare hazards, and interference with infrared and heat sensors.

2.3.5.2.5 Utilities and Rights of Way

Due to safety reasons, under Alternative 2, the Navy would allow only one utility corridor and ROW on the existing and proposed bombing ranges. The existing utility corridors in the DVTA would be allowed to remain, and the Navy would allow new transmission utilities within the existing north/south corridor or allow transmission utilities within a 90-foot buffer adjacent to the existing north/south corridor. For example, a new corridor could be installed next to or within the existing corridor with slightly infrastructure than existing utility infrastructure. Any new geothermal facilities would need to develop underground transmission methods in order to reach the current Dixie Valley utility corridor. Any new utility would require underground transmission routing to connect to the existing corridor.

Under Alternative 2, the Navy proposes to allow development of water resources activities to continue on certain withdrawn areas as long as the actions are consistent with training activities and approved by

the Navy. The Navy is currently proposing the following required design features for water development:

- A permanent right-of-way immediately adjacent to the existing Terra-Gen ROW to accommodate the main transmission power line
  - Recommended maximum width of permanent ROW is 90 feet each.
  - Recommended maximum width of temporary ROW is 300 feet.
- Infrastructure outside the ROW to be located west of State Route 121 to the greatest extent possible.
- Place all transmission lines located outside of the main ROW corridor underground.
  - A 90-foot wide permanent ROW for all lateral transmission lines from the main transmission power line ROW to the well locations, 300 feet for construction.
  - Trenching for water and electrical lines will be constructed to recommended engineering standards, assuming separate trenches will be necessary.
- Provide 1.5-acre ROWs for well houses. Provide a 2-acre temporary construction ROW for all proposed well locations for well siting and construction.
- Communication tower locations minimized and the use of fiber communication maximized.
- Communication towers would be limited to 20 feet and appropriately lighted for safety.
- Major facilities (permanent structures) within Dixie Valley would be collocated and have no structures over 40 feet in height.
- Coordinate with Navy on frequency spectrum.
- Use compatible lighting with downward facing shades, lighting with frequency that doesn't "wash out" night-vision devices, and motion sensors to minimize light as appropriate.
- Coordinate all exploratory and construction activities in the DVTA with NAS Fallon.
- Coordinate with NAS Fallon for all temporary vertical obstruction safety lighting.
- Coordinate with NAS Fallon on the use of unmanned aerial vehicles used in the DVTA.
- Minimize impacts on current access roads from electrical and water utilities in ROWs.

2.3.5.2.6 Off-Highway Vehicle Activities

Similar to Alternative 1, the Navy would allow OHV activities under Alternative 2 on the proposed withdrawn or acquired lands within the DVTA. Users would be required to follow BLM OHV regulations (e.g., remaining on current roads and trails, and using vehicles equipped with spark arrestors during fire season). For public safety reasons associated with ordnance use, the Navy would not allow OHV activity within any of the Navy bombing ranges (B-16, B-17, B-19, or B-20).

2.3.5.2.7 Camping and Hiking Activities

Similar to Alternative 1, the Navy would continue to allow recreational activities, such as camping and hiking, within the proposed Navy withdrawn lands in the DVTA. For public safety reasons, the Navy would not allow camping, hiking, or similar recreational activities (apart from hunting [see above]) within any of the Navy bombing ranges (B-16, B-17, B-19, or B-20).

2.3.5.2.8 Site Visit and Management Activities

Similar to Alternative 1 and when feasible, the Navy would allow ceremonial or cultural site visits, research/academic activities, and regulatory or management activities (such as BLM, Bureau of Reclamation, or NDOW activities) on all proposed Navy lands. Access to the Dixie Valley lands would be available daily with no additional access restrictions. For site visits on any of the Navy bombing ranges (B-16, B-17, B-19, or B-20), current procedures exist and would continue to apply to any proposed withdrawn or acquired lands under this alternative:

- The NAS Fallon Community Planning and Liaison Officer in conjunction with the NAS Fallon Environmental Division would manage the site visit program.
- Site visits must be compatible with mission training activities and operate on a not-to-interfere basis.
- Bombing range scheduling and access procedures remain as per Navy range management policy.
- For safety purposes, Navy range personnel, including the NAS Fallon Cultural Resource Manager, escort site visit personnel.

2.3.5.2.9 Large Event Race Activities

The Navy supports BLM and State of Nevada-sponsored off-road races and would allow their current use to continue to the maximum extent practical. This support would include access to B-16, B-17, and B-20 to the extent compatible with mission requirements.

Race protocol for the DVTA would include the following:

- BLM to contact the Navy to coordinate potential opportunities for access with training activity schedule.
- Races managed by BLM and the State of Nevada as appropriate.

Race protocols for bombing ranges within bombing ranges (B-16, B-17, B-19, and B-20) would include the following:

- Races permitted and managed by BLM or the State of Nevada in accordance with MOU between the NAS Fallon Land Management Activity and the Navy Range Office.
- Race scheduling and training de-confliction to the extent consistent with mission requirements performed between the BLM, the State of Nevada, the NAS Fallon Land Management Activity, and the Navy Range Office.
- Portions of races that occur on BLM-managed lands would be managed by BLM, and portions of races occurring on bombing ranges would be managed by Navy.

2.3.5.3 Construction

The construction activities proposed for each range under Alternative 2 would be similar to those listed under Alternative 1:

- B-16
  - Construct a Combat Village (using conex boxes) to support Tactical Ground Mobility Training.
  - Install perimeter fencing and five access gates.
- B-17
  - Construct one vehicle, target, and equipment maintenance building.
  - Install two communications towers.

- Create new target areas and convoy routes.
- Install perimeter fencing with access gates.
- Relocate State Route 839 (subject to follow-on, site-specific NEPA analysis).
- Relocate Paiute Pipeline (subject to follow-on, site-specific NEPA analysis).

- B-20
  - Construct one vehicle, target, and equipment maintenance building.
  - Install perimeter fencing with access gates.
- DVTA
  - Develop three Electronic Warfare sites.

Details for each construction or improvement activity can be found in Sections 2.3.4.3.3 (B-16), 2.3.4.4.3 (B-17), 2.3.4.5.3 (B-20), and 2.3.4.6.3 (Dixie Valley Training Area).

2.3.5.4 Special Use Airspace Modifications

Similar to Alternative 1, except for a slight expansion beyond the current northern boundary of the FRTC (see Table 2-4 and Figure 2-7), the requested airspace modifications would be within the existing boundary of the FRTC airspace and consist of reorganizing airspace blocks and redefining airspace ceilings and floors. The objective of these changes is to use airspace more efficiently during Large Force Exercises while providing civilian aviators the maximum access possible and maintaining priority for emergency flights through the airspace. SUA would be reconfigured horizontally and would also increase vertical tactical airspace by 22 percent. Table 2-4 shows the existing airspace configurations and the proposed changes.

2.3.6 Alternative 3 – Bravo-17 Shift and Managed Access (Preferred Alternative)

Alternative 3 is similar to Alternatives 1 and 2 in terms of its requested land withdrawals and proposed acquisitions, except with respect to the orientation, size, and location of B-16, B-17, B-20, and the DVTA, and similar to Alternative 2 in terms of managed access, as shown in Figure 2-12. With respect to B-16, unlike Alternative 1 and Alternative 2, the lands south of Simpson Road (and Simpson Road itself) would not be withdrawn. Additionally, currently withdrawn lands south of Simpson Road would be relinquished by the Navy back to the BLM. Alternative 3 would move B-17 farther to the southeast and rotate it slightly counter-clockwise, as shown in Figure 2-15. Under Alternative 3, the Navy would not withdraw East County Road or the land east of East County Road for B-20 (Figure 2-16).

Similar to Alternative 2, Alternative 3 would allow for certain public activities on certain areas of B-16, B-17, and B-20 at designated times when the ranges would not be operational (i.e., typically weekends, holidays, and when closed for scheduled maintenance) (Table 2-6).

Under Alternative 3, the land requested for withdrawal for the DVTA north of U.S. Route 50 would remain the same as in Alternative 1. Unlike Alternative 1, the Navy would not withdraw land south of U.S. Route 50 as DVTA. Rather, the Navy proposes designation of this area as a Special Land Management Overlay. This Special Land Management Overlay would define two areas (one east and one west of the B-17 range) as Military Electromagnetic Spectrum Special Use Zones. These two areas, which are public lands under the jurisdiction of BLM, would not be withdrawn by the Navy and would not directly be used for land-based military training or managed by the Navy. The area does include an existing right-of-way for a current Navy communication site. Otherwise, these two areas would remain open to public access and would be available for all appropriative uses, including mining for locatable and leasable mineral resources. However, prior to issuing any decisions on projects, permits, leases,

studies, and other land uses within the two special use zones, BLM would be required to consult with NAS Fallon.

Between the public Draft EIS and Final EIS, the Navy received public comments requesting that the size of the withdrawal and acquisition be reduced as much as possible. The Navy has reduced the size of the withdrawal from the proposal in the Draft EIS. This change in area is shown in Figure 2-13 and Figure 2-14, and in Table 2-7. Table 2-8 shows the percentage of each county requested for withdrawal or proposed for acquisition by land category (open or closed to the public) and has been updated to reflect the new numbers proposed in the Final EIS for Alternative 3. The Navy would continue to evaluate range usage in order to determine if further reductions in acreage could be realized.

Section 2.3.5.2 (Public Accessibility) details program requirements for allowable uses under Alternative 2, which are the same under this alternative. Allowing certain uses would make the Navy mission more challenging and complex. For example, the Navy would need to spend more effort and money concerning the management of access and coordination with the public to ensure their safety. However, Alternative 3 would still meet the Navy requirement to ensure that the FRTC possesses the present and future capabilities necessary to train and assess deploying forces for combat readiness, as reflected in the purpose of and need for the Proposed Action. In conjunction with shifting B-17 in this manner, the expanded range would leave State Route 839 in its current configuration along the western boundary of B-17 and would expand eastward across State Route 361 (Similar to Alternative 2, Alternative 3 would allow for certain public activities on certain areas of B-16, B-17, and B-20 at designated times when the ranges would not be operational (i.e., typically weekends, holidays, and when closed for scheduled maintenance) (Table 2-6).

Table 2-6: Alternative 3 Allowable Activities Within Range Boundaries

Area	Activity											
	Grazing	Hunting	Mining			Solar /Wind	Utilities /ROWs	OHV	Camping /Hiking	Site Visits (Ceremonial Cultural, or Research)	Mgmt^ Access	Events (Races)
			Locatable	Leasable	Salable							
B-16	1	1	1	1	1	1	1	1	1	2	2	2
B-17	1	2+	1	1	1	1	1	1	1	2	2	2
B-19	1	1	1	1	1	1	1	1	1	2	2	2
B-20	1	1	1	1	1	1	1	1	1	2	2	2
DVTA	3	3	1	2*	2	1	2	3	3	3	3	3

Notes: 1. Grey = Activity Not Allowed. Public Safety concern. Closed to Public Access. 2. Yellow = Activity Allowable. Limited Public Access. 3. Green = No Restrictions. Open to Public Access. ROW = Rights of Way

^ Mgmt = Management

* Geothermal mining only

+ Only bighorn sheep hunting is proposed

The Navy would work with land managers to ensure that their access is coordinated and compatible with military training activities on all ranges and in the DVTA.

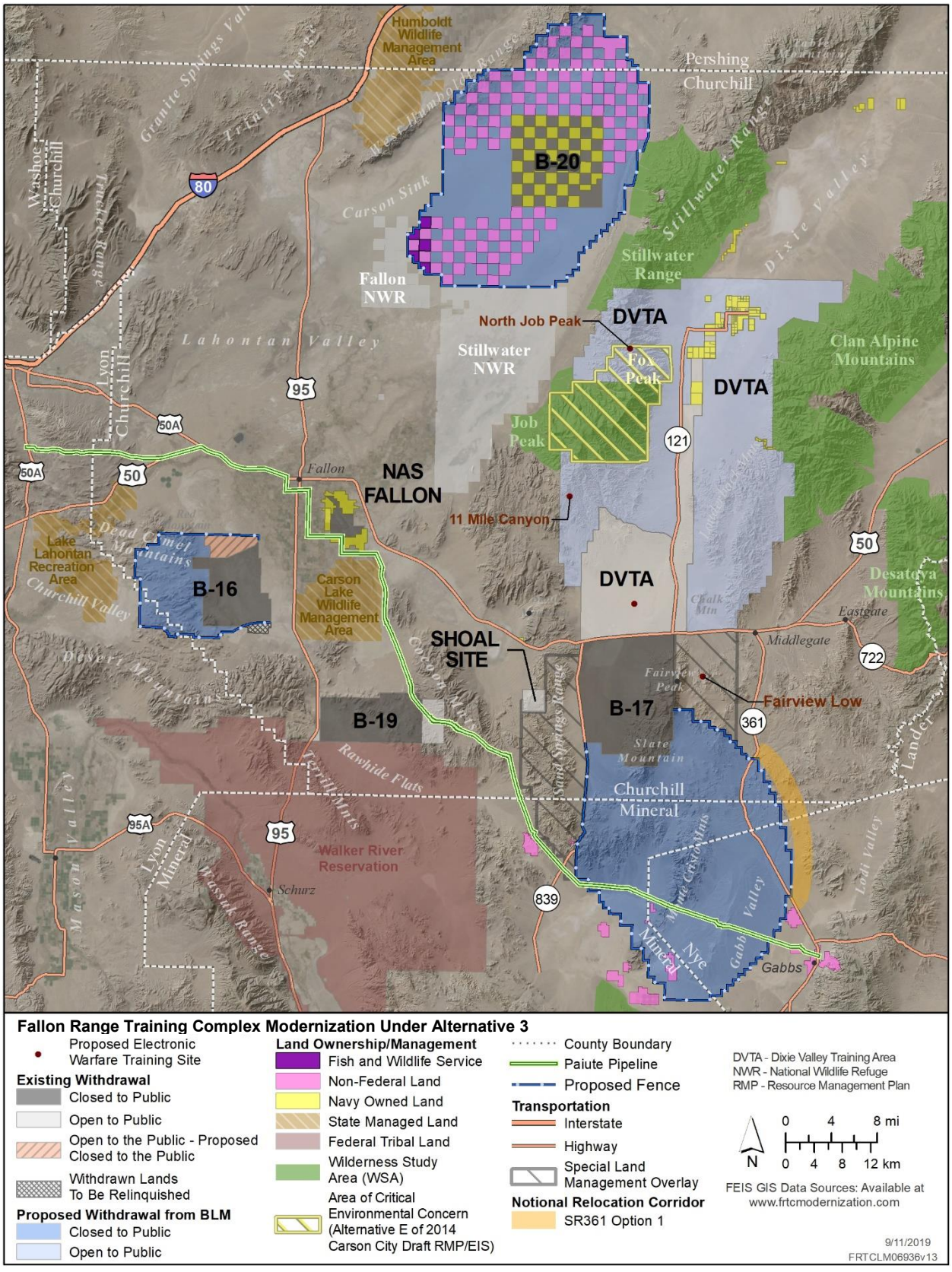

Figure 2-12: Fallon Range Training Complex Modernization Under Alternative 3

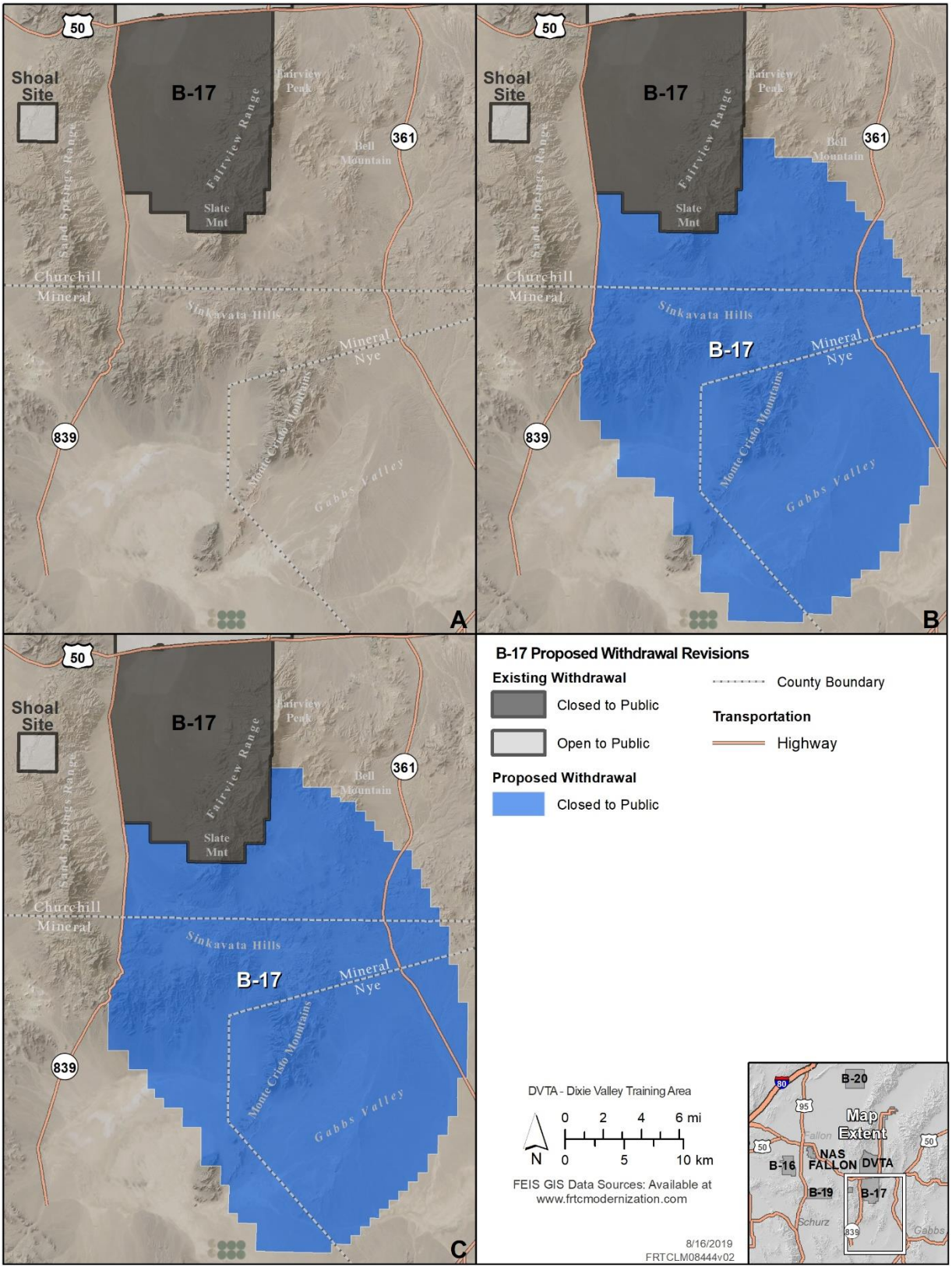

Figure 2-13: Fallon Range Training Complex B-17 Modernization Comparison of (A) Existing Range, (B) Draft EIS Alternative 3, and (C) Final EIS Alternative 3

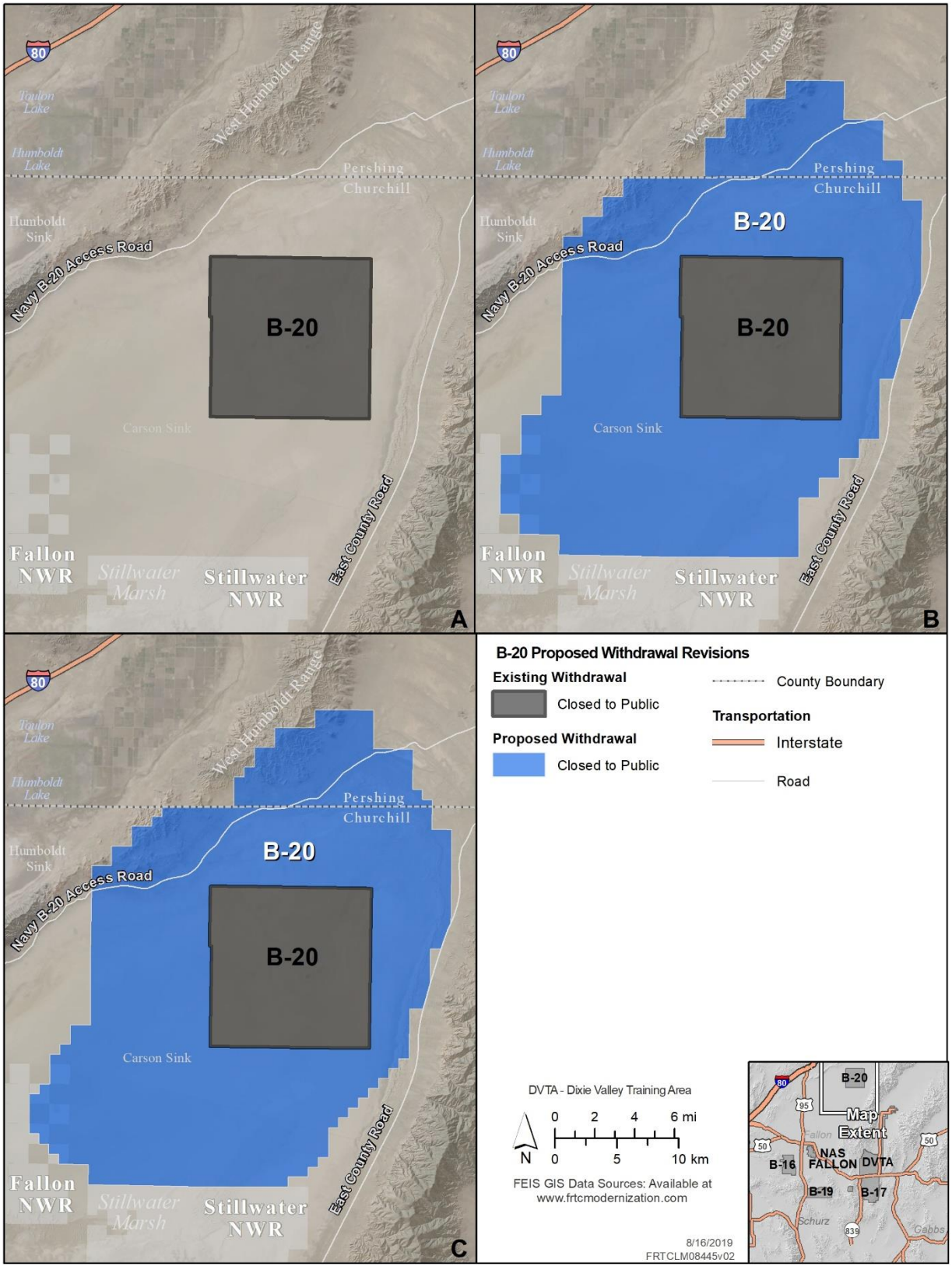

Figure 2-14: Fallon Range Training Complex B-20 Modernization Comparison of (A) Existing Range, (B) Draft EIS Alternative 3, and (C) Final EIS Alternative 3

Table 2-7: Alternative 3 Requested Withdrawal and Proposed for Acquisition by Range

Area	Existing Acreage			Requested Additional Withdrawal and Proposed Acquisition					Draft EIS Grand Total	Final EIS Grand Total**
	Withdrawn[1] (acres)	Non-Federal (acres)	Navy Fee Owned (acres)	Draft EIS Withdrawn[1] (acres)	Final EIS Withdrawn (acres)	Draft EIS Non-Federal (acres)	Final EIS Non-Federal (acres)	Final EIS Existing Withdrawn Not to be Renewed (acres)		
B-16	27,359	0	0	31,836	31,875	0	0	-1,079	59,195	58,155
B-17	53,546[2]	1,215	25	211,424	209,564	1,237	1,237	0	267,448	265,588
B-19	29,012	0	0	0	0	0	0	0	29,012	29,012
B-20	21,576	0	19,429	118,204	115,349	61,765	61,765	0	220,974	218,119
DVTA	68,809	0	8,751	245,200	245,428	2,518*	2,334*	0	325,277	325,322
Shoal	2,561	0	0	0	0	0	0	0	2,561	2,561
Totals+	202,864	1,215	28,205	606,664	602,216	65,520	65,336	-1,079	904,468	898,758

[1]Withdrawn lands are lands withheld from the operation of public land laws for the use or benefit of an agency by reservation, withdrawal, or other restrictions for a special government purpose. The existing withdrawn acreage represents the area that is presented in the Navy's withdrawal request segregation package and are lands that Navy is requesting for renewal. This number does not match the acreage values as described in PL 106-65 as a result of numerous land surveys by the BLM since 1999.

[2]The Navy is currently performing a land parcel survey to allow the potential relinquishment of 12 acres of land on the existing B-17 adjacent to State Route 839 to allow continued use of the area for local livestock and wildlife watering efforts.

+Due to rounding of acreage values at the category level, some total columns may not match calculated totals.

*Six of these acres are state lands.

**These columns show the updated acres for the Final EIS proposed for withdrawal or requested for acquisition under Alternative 3.

Notes: B = Bravo, DVTA = Dixie Valley Training Area, Navy = United States Department of the Navy

Similar to Alternative 2, Alternative 3 would allow for certain public activities on certain areas of B-16, B-17, and B-20 at designated times when the ranges would not be operational (i.e., typically weekends, holidays, and when closed for scheduled maintenance) (Table 2-6). Table 2-8 shows the percentage of each county requested for withdrawal or proposed for acquisition by land category (open or closed to the public).

Table 2-8: Lands Requested for Withdrawal and Proposed for Acquisition by Percentage of County Under Alternative 3

Area	Land Category	County				
		Churchill	Nye	Pershing	Mineral	Lyon
B-16	Open	0	0	0	0	0
	Closed	0.87%	0	0	0	0.31%
B-17	Open	0	0	0	0	0
	Closed	1.54%	0.72%	0	3.11%	0
B-20	Open	0	0	0	0	0
	Closed	4.88%	0	0.55%	0	0
DVTA	Open	7.72%	0	0	0.25%	0
	Closed	0	0	0	0	0
Total Percentage of County	**Open**	**7.72%**	**0.00%**	**0.00%**	**0.25%**	**0.00%**
	Closed	**7.29%**	**0.72%**	**0.55%**	**3.11%**	**0.31%**

Acreage values are derived from the GIS layers of the proposed withdrawal and expansion and may not equal values developed from the real estate cadastre. Also, acreage values do not include Navy-Fee Owned lands in calculation.

2.3.6.1 Bravo-16

2.3.6.1.1 Land Withdrawal and Acquisition

Under Alternative 3, the B-16 range would expand to the west by approximately 31,875 acres (Figure 2-15), increasing the total area to approximately 59,234 acres. Unlike Alternative 1 and Alternative 2, the lands south of Simpson Road (and Simpson Road itself) would not be withdrawn. Additionally, currently withdrawn lands south of Simpson Road would be relinquished by the Navy back to the BLM or Bureau of Reclamation.

2.3.6.1.2 Public Accessibility

Under Alternative 3, public access would be the same as described for Alternative 2. The entire range would be closed and restricted from public use except for Navy-authorized activities such as ceremonial or cultural site visits, or regulatory or management activities, such as BLM or Bureau of Reclamation, or NDOW activities (Table 2-6). The Navy would close Sand Canyon Road to the public. However, Simpson Road along the southern boundary of B-16 and the relinquished withdrawn land south of Simpson Road would remain open to public use.

2.3.6.1.3 Construction

Under Alternative 3, construction activities would be the same as described for Alternatives 1 and 2. The Navy would construct a Combat Village to support Tactical Ground Mobility Training and would install perimeter fencing around the withdrawn lands. Section 2.3.4.3.3 (Construction) details these activities.

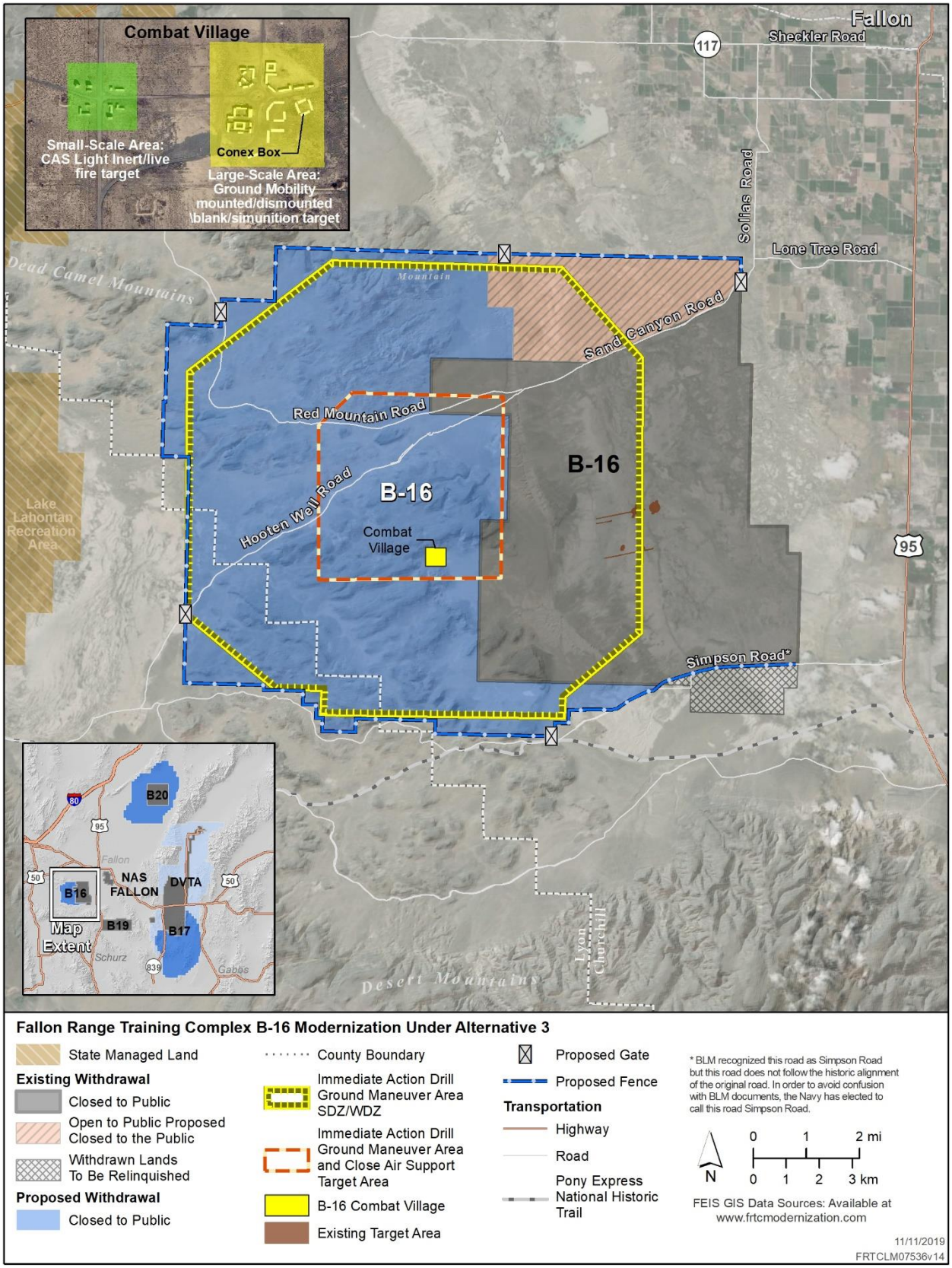

Figure 2-15: Fallon Range Training Complex B-16 Modernization Under Alternative 3

2.3.6.2 Bravo-17

2.3.6.2.1 Land Withdrawal and Acquisition

Under Alternative 3, B-17 would expand to the southeast by approximately 212,016 acres, and the withdrawal footprint would be rotated counterclockwise (Figure 2-16). The requested withdrawal would eliminate the overlap of State Route 839 (which would occur under Alternatives 1 and 2). Approximately 4,000 acres would support convoy routes, military vehicle training routes, or ground target areas (Figure 2-16), but in different locations than those described for Alternatives 1 and 2. Under Alternative 3, in addition to new targets and target areas, the Navy would continue to use existing targets and target areas.

2.3.6.2.2 Public Accessibility

Under Alternative 3, public access would be the same as described under Alternative 2. Alternative 3 would allow certain public uses within specified areas of B-17 at designated times when the ranges would not be operational (e.g., typically weekends, holidays, and when closed for scheduled maintenance), similar to Alternative 2. The entire B-17 range would be closed and restricted from the majority of public uses. Only Navy-authorized activities such as ceremonial and cultural site visits, regulatory or management activities, such as BLM or NDOW activities, as well as bighorn sheep hunting would be allowed (Table 2-6). The Navy and NDOW would manage the hunting program through a Memorandum of Agreement (see Appendix D, Memoranda, Agreements, and Plans, for a draft of the agreement). Section 2.3.5.2 (Public Accessibility) provides detailed program requirements for allowable uses.

Additionally, with the shifting of the B-17 range under Alternative 3, the Navy would also shift the B-17 hunter avoidance areas (avoidance areas would be reviewed and updated annually by the range operations and safety department). The WDZ proposed for training activities at B-17 would extend over a portion of State Route 361 (see Section 2.3.6.2.4, Road and Infrastructure Improvements to Support Alternative 3). For public safety purposes, the Navy is proposing to potentially reroute the portion of State Route 361 that would overlap with the proposed expansion area.

2.3.6.2.3 Construction

Under Alternative 3, the Navy would construct two vehicle, target, and equipment maintenance buildings and install two communications towers similar to Alternatives 1 and 2. Section 2.3.4.4.3 (Construction) details these activities.

Under Alternative 3, the Navy would fence proposed expansion lands using approximately 78 miles (instead of 75 miles as defined in Alternatives 1 and 2) of wildlife friendly configured four-wire fencing with seven 20-foot double swinging gates for access into the range (Figure 2-16) and signage placed at regular intervals. Spacing of wires would be configured appropriately for the wildlife in the area.

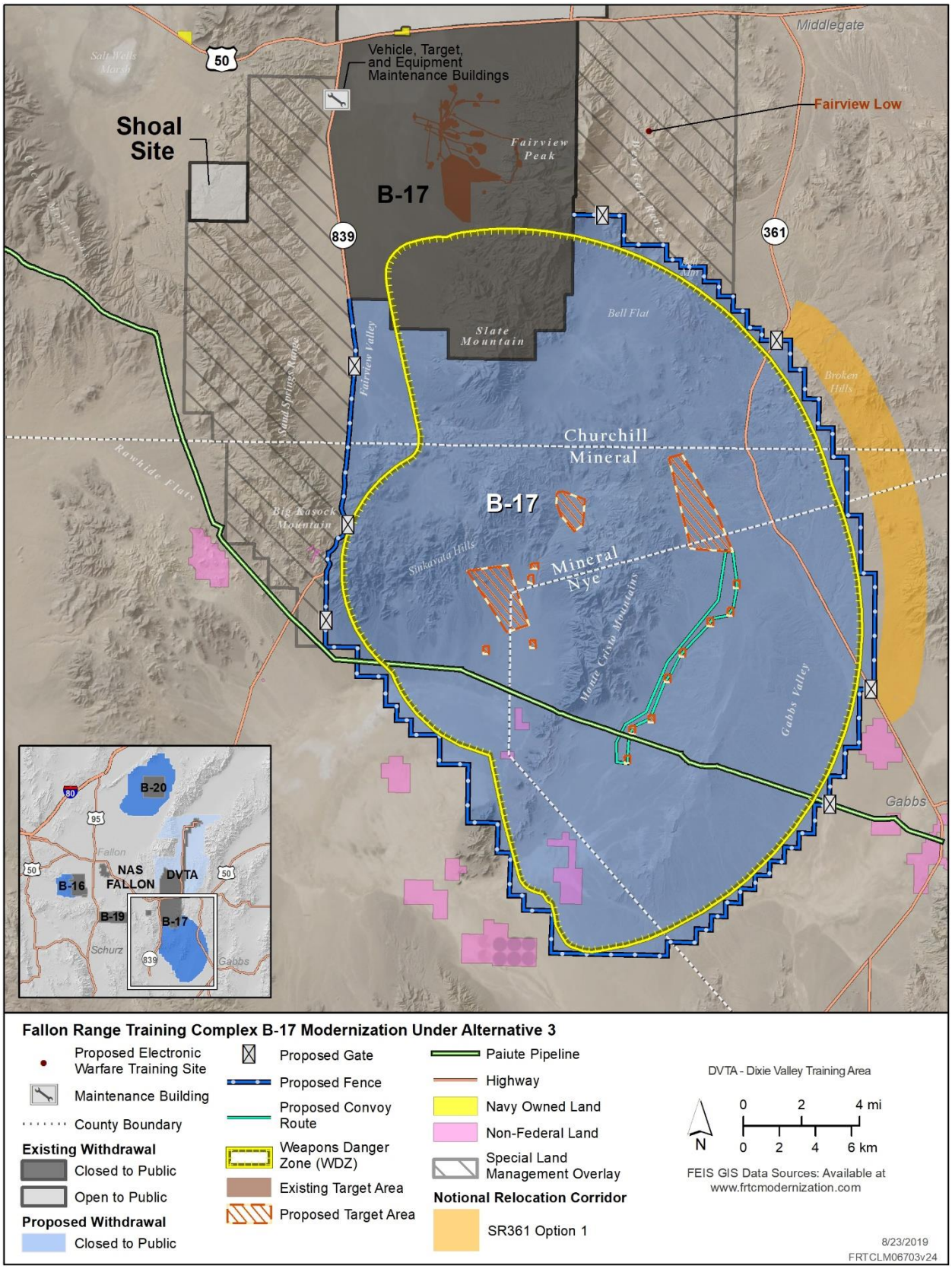

Figure 2-16: Fallon Range Training Complex B-17 Modernization Under Alternative 3

2.3.6.2.4 Road and Infrastructure Improvements to Support Alternative 3

Relocate State Route 361. With the reorientation and relocation of B-17, approximately 12 miles of State Route 361 that currently traverses BLM-administered lands would no longer be available for public use. The Navy is proposing to fund the potential construction of a new road (one of two potential options) within a notional corridor with similar specifications to State Route 361 outside of the requested withdrawal area, which would be analyzed in follow-on NEPA documentation (Figure 2-16). This corridor would cross public lands managed by BLM and could potentially improve vehicle access to these areas. Before constructing this supporting road, NDOT would need to submit an application to BLM, or other land managers, for the ROWs for any proposed new road section. The Navy would seek funding from Congress to pay for relocation of the road. Funds received would be used by the Federal Highway Administration, in cooperation with the Nevada Department of Transportation, to plan, design, and construct the replacement road segment. NEPA documentation would be completed by the Federal Highway Administration prior to any road construction.

The Navy would coordinate with NDOT during each of these phases. The Navy has submitted a Needs Report to the Surface Deployment and Distribution Command requesting authority to utilize funding through the Defense Access Roads program. If approved, the Navy would coordinate construction execution through the Federal Highway Administration. NDOT would ensure that construction of any new route is complete before closing any portion of the existing State Route 361, and the Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing State Route 361 unless and until any such new route has been completed and made available to the public.

Relocate Paiute Pipeline. Under Alternative 3, the Navy would purchase the approximately 18 miles of the existing Paiute Pipeline south of the proposed B-17. The Paiute Pipeline relocation segment would include the same specifications as the existing pipeline. The Navy would purchase and fund relocation of that portion of the pipeline. A ROW application submitted to the BLM by the pipeline owner would formally identify any proposed reroute. Site-specific environmental analysis and NEPA planning would be required before any potential relocation of the pipeline could occur. Using funds provided by the Navy, the pipeline owner would have responsibility for planning, designing, permitting, and constructing any realignment of the pipeline. The Navy would not utilize any portion of an expanded B-17 range (if implemented) that would overlap the existing pipeline unless and until any such rerouting of the pipeline has been completed and made available to the pipeline owner. BLM would have decision authority with respect to any proposed final routing subsequent to completion of site-specific environmental analysis.

2.3.6.3 Bravo-20

2.3.6.3.1 Land Withdrawal and Acquisition

Land withdrawal and acquisition for B-20 under Alternative 3 would be the same as Alternative 1 as described in Section 2.3.2 (Alternative 1 – Modernization of the Fallon Range Training Complex) with one exception. East County Road and land parcels immediately east of East County Road would not be withdrawn or closed. The B-20 range would expand in all directions by approximately 177,114 acres (Figure 2-17). This expansion would include approximately 2,720 acres of land currently withdrawn by the USFWS for the Fallon National Wildlife Refuge. Due to the safety concerns associated with being within a WDZ, those portions of the refuge lands would be closed to the public. The Navy anticipates entering into an agreement with the USFWS, which would allow continued management of the land as a Wildlife Refuge.

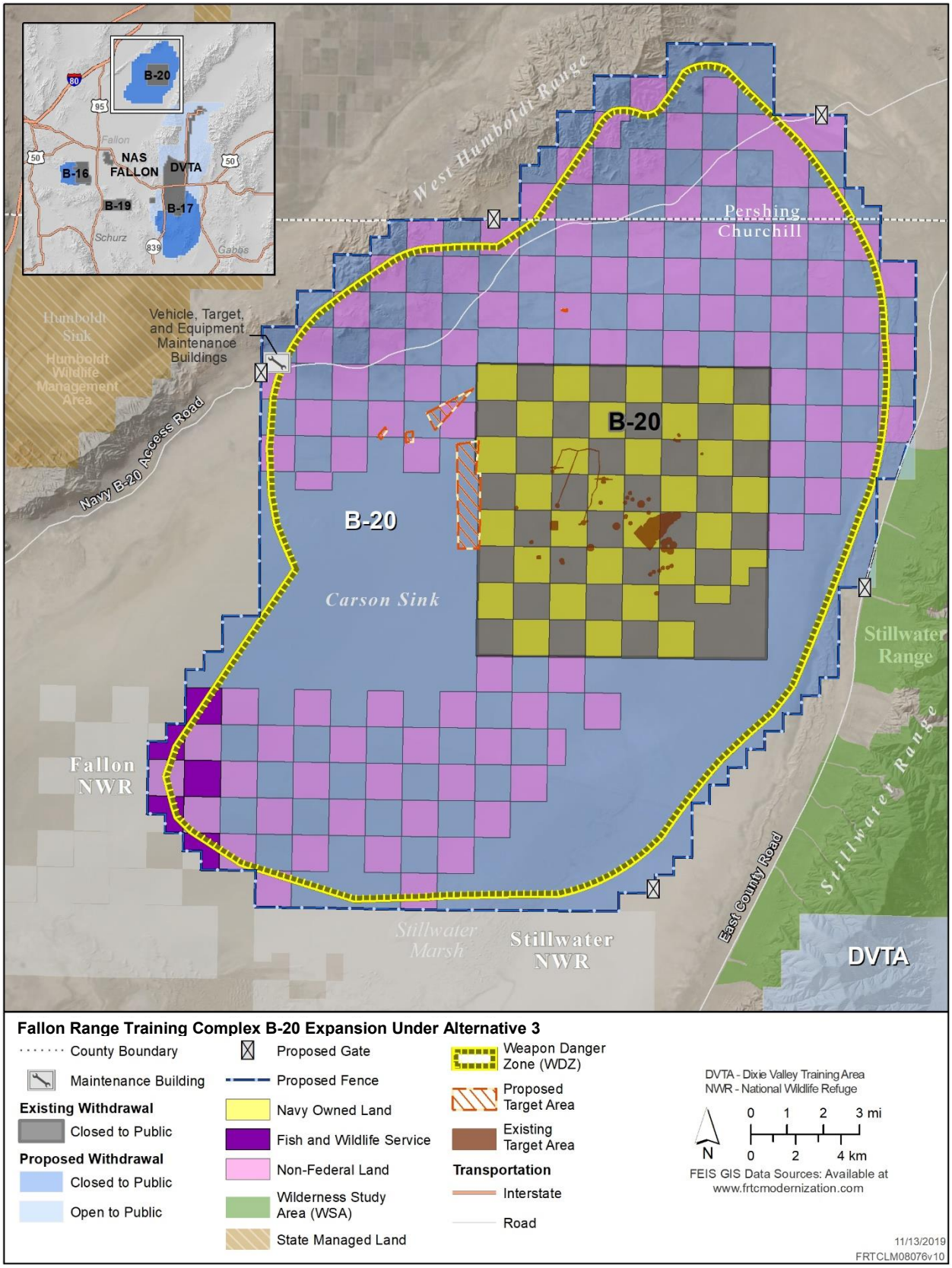

Figure 2-17: Fallon Range Training Complex B-20 Expansion Under Alternative 3

2.3.6.3.2 Public Accessibility

Public access at B-20 under Alternative 3 would be the same as under Alternative 2, as described in Section 2.3.2 (Alternative 1 – Modernization of the Fallon Range Training Complex). The majority of B-20 would be closed and restricted from public use except for Navy-authorized activities such as ceremonial or cultural site visits, special event races, or regulatory or management activities (e.g., BLM, Bureau of Reclamation, or USFWS activities) (Table 2-6).

East County Road and approximately 300 acres of land proposed for withdrawal in Alternatives 1 and 2 that is not proposed for withdrawal as part of the preferred alternative would remain open to the public to allow for transit. However, the B-20 Navy Access Road (known locally as Pole Line Road) would be closed to public access. The Navy would work with USFWS to ensure the USFWS manages the 2,720 acres of the Fallon National Wildlife Refuge requested for withdrawal as part of the refuge but closed to public access to preserve human health and safety.

2.3.6.3.3 Construction

Under Alternative 3 at B-20, the same construction activities as described for Alternative 1 would occur:

- Construct one vehicle, target, and equipment maintenance building.
- Install perimeter fencing with access gates.

Section 2.3.4.5.3 (Construction) details the implementation of these activities.

2.3.6.4 Dixie Valley Training Area

2.3.6.4.1 Land Acquisition and Withdrawal

Under Alternative 3, the land requested for withdrawal for the DVTA north of U.S. Route 50 would remain the same as in Alternative 1. However, under Alternative 3, the Navy would not withdraw land south of U.S. Route 50 as DVTA. Rather, the Navy proposes designation of this area as a Special Land Management Overlay. This Special Land Management Overlay would define two areas (one east and one west of the B-17 range) as Military Electromagnetic Spectrum Special Use Zones. These two areas, which are public lands under the jurisdiction of BLM, would not be withdrawn by the Navy and would not directly be used for land-based military training or managed by the Navy. The area does include an existing right-of-way for a current Navy communication site. Otherwise, these two areas would remain open to public access and would be available for all appropriative uses, including mining for locatable and leasable mineral resources. However, prior to issuing any decisions on projects, permits, leases, studies, and other land uses within the two special use zones, BLM would be required to consult with NAS Fallon.

This consultation would inform the Navy of proposed projects, permits, leases, studies, and other land uses and afford the Navy an opportunity to collaborate with BLM to preserve the training environment. Further, prior to issuing any approval for installation or use of mobile or stationary equipment used to transmit and receive electromagnetic signals in the two special use zones as part of any federal action, BLM would be required to obtain permission from the Navy for use of this equipment. This requirement to obtain Navy permission for the use of this equipment would afford the Navy an opportunity to ensure military and civilian uses of the electromagnetic spectrum do not interfere with each other. BLM and the Navy would also enter into a MOU to administer the details of the consultation and approval process.

The proposed expansion (requested withdrawal and proposed acquisition) would total approximately 247,762 acres (Figure 2-16) and would increase the total range size to 325,322 acres.

2.3.6.4.2 Public Accessibility

Ground training by the Navy would continue to take place on existing roads and trails, with lands remaining open for certain public uses. Allowable public uses would include hunting, camping, hiking, fishing, OHV use, site visits, and grazing. The Navy would allow the same uses under Alternative 3 as defined under Alternative 2, including limited geothermal development west of State Route 121 and utility corridors (Table 2-6).

2.3.6.4.3 Construction

As in Alternative 1, Alternative 3 would create three Electronic Warfare sites: North Job Peak, 11-Mile Canyon, and Fairview Low (Figure 2-5). Section 2.3.4.6.3 (Construction) discusses these Electronic Warfare sites in greater detail.

2.3.6.5 Special Use Airspace Modifications

Under Alternative 3, airspace changes would be implemented in largely the same way as Alternative 1 (see Table 2-4). However, under Alternative 3, the Navy would create a new restricted area (R-4805) south of the existing R-4804 A/B and R-4812 to overlay the relocated withdrawal of B-17 lands (Figure 2-18). Alternative 3 would implement all other Restricted Areas, MOA, and ATCAA changes in the same manner as Alternatives 1 and 2.

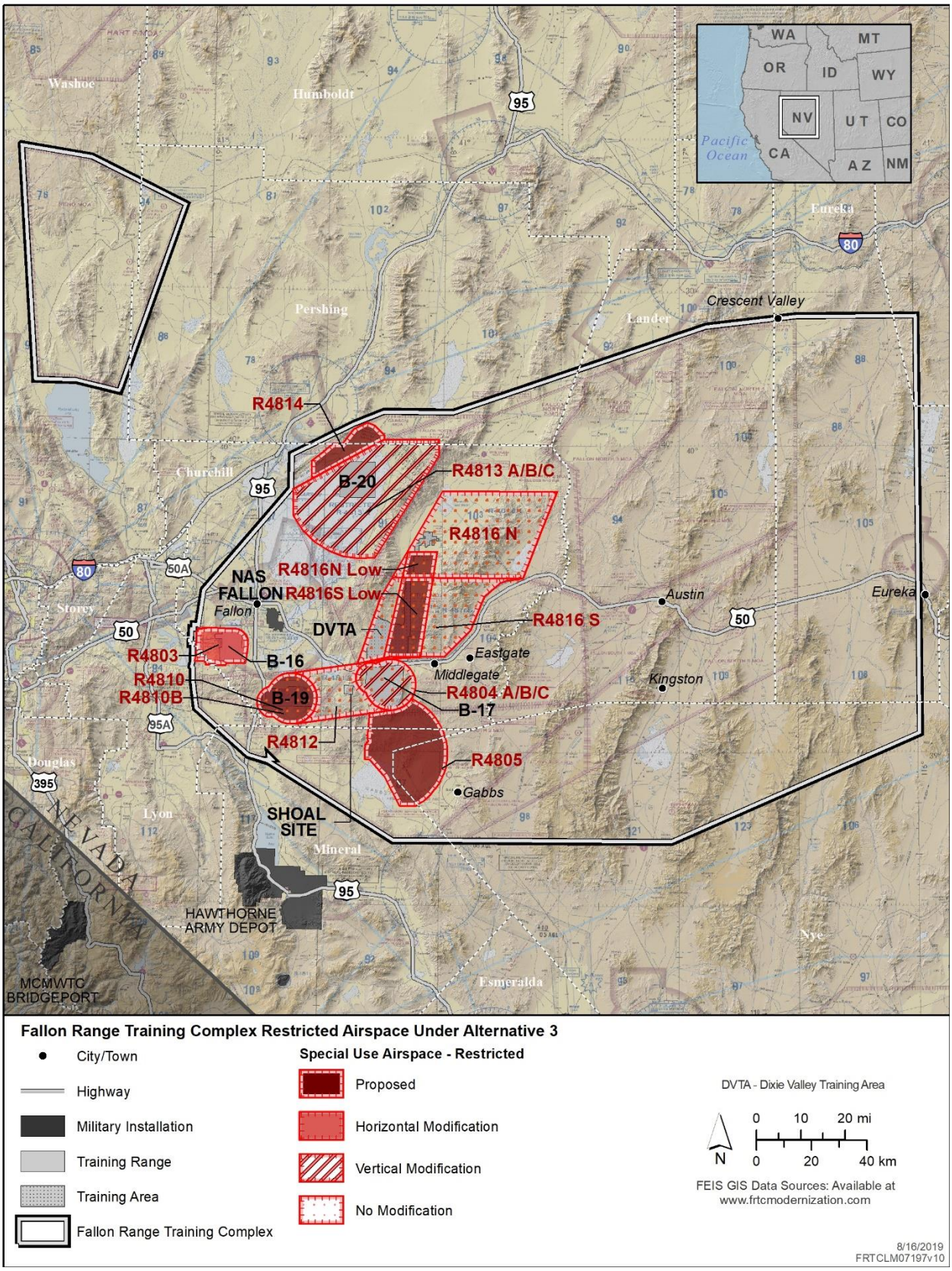

Figure 2-18: Fallon Range Training Complex Restricted Airspace Under Alternative 3

2.4 Environmental Baseline (Current Training Activities)

The Navy used the screening and sub-factors as described in Section 2.2 (Screening Factors) to evaluate whether potential alternatives met the purpose of and need for the Proposed Action. In addition to the No Action Alternative, the Navy identified three action alternatives for detailed analysis in this EIS. An "environmental baseline" was needed to compare the potential impacts of all alternatives to existing conditions. Therefore, the environmental baseline for this EIS is based on aviation and ground training activities as established under Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015a).

The Range Activity Summary Table (Table 2-9) contains data for training activities at the FRTC as presented in Alternative 2 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015a), including representative platforms (e.g., aircraft) used, annual number of training activities, and associated training locations.

Appendix D of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015a) provides summary descriptions of current training activities conducted within the primary mission areas at the FRTC. The appendix also provides additional information, including estimated annual munitions use by range area and aircraft overflights in the FRTC airspace. Munitions use and overflight values are based on documented historical use, existing requirements, and anticipated future continuing requirements. These values are representative of current annual training levels and are part of the environmental baseline for analytical purposes.

Table 2-9: Annual Level of Training Activities at the Fallon Training Range Complex – Environmental Baseline

Range Activity	Representative Platform	Annual Number of Training Activities	Location[1]
Air Warfare			
Air Combat Maneuvers	FA-18, EA-18G, F-16, F-22, F-35, AV-8, EA-6B, F-15, F-16, F-5, F-21	2,153	NAWDC 1, NAWDC 2
Air Combat Maneuvers	FA-18	688	Reno MOA
Strike Warfare			
Bombing Exercise (Air-to-Ground)	AV-8, EA-18G, FA-18, F-15, F-16	1,422	B-16, B-17, B-19, B-20
Close Air Support	EA-18G, EA-6B, FA-18, F-15, F-16, H-60, T-34, UAS, F-35, A-10, AV-8, AH-1	416	B-17, B-19
Urban Close Air Support	FA-18	101	Over the city of Fallon, Nevada

Table 2-9: Annual Level of Training Activities at the Fallon Range Training Complex – Environmental Baseline (continued)

Range Activity	Representative Platform	Annual Number of Training Activities	Location[1]
Combat Search and Rescue	E-2, EA-6B, EA-18G, FA-18, F-5, F-16, F-35, H-60S	127	NAWDC 1, NAWDC 2
Gunnery Exercise (Air-to-Ground)	FA-18, CH-46, H-60, H-47, H-53, F-35, F-15, F-16, V-22, A-10, AH-1, AH-64	44	B-16, B-17, B-19, B-20
HARMEX (Suppression of Enemy Air Defense [simulation only])	FA-18, EA-18G, F-35 Integrated activities may add F-22, F-15, F-16, E-2, E-3, EP-3, RC-135	22	Electronic Warfare Range
Missile Exercise (Air-to-Ground)	F-18, AV-8, F-15E, H-60S, F-35	123	B-17, B-19, B-20
Naval Special Warfare			
Convoy Operations	Aircraft: FA-18, CH-47, H-60, CH-46 Vehicles: HMMWV	35	Dixie Valley Training Area
Insertion/Extraction	CH-47, H-60, C-130, MV-22, CH-46	34	NAWDC 1, NAWDC 2
Tactical Ground Mobility	HMMWV, SUV, RG-31/33, MATV, ATV, LTATV Joint light tactical vehicle, UAS CAT1	13	B-16, Dixie Valley Training Area
Ground Maneuver Tactics	Ground Personnel	4	Dixie Valley Training Area
Large Force Exercises			
Carrier Air Wing Large Force Exercise	E-2, E-3, E-8, EA-6B, EA-18G, F-15, F-16, F-21, F-22, F-5, FA-18, H-60, SH-60, C-130, KC-10, KC-130, KC-135, P-3C, P-8, F-35, RC-135, UAS	420	NAWDC 1, NAWDC 2
Desert Rescue Large Force Exercise	AH-1, AH-1Z, A-10, C-130, E-2C, EA-6B, EA-18G, FA-18, F-16, F-5, F-35, MV-22, H-60, MI-17, MI-24, UAS	77	NAWDC 1, NAWDC 2
Large Force Exercises			
Long Range Strike for JTFEX and COMPTUEX	E-2C, E-3, EA-6B, EA-18G, F-5, F-15, F-16, FA-18, F-22, F-35, KC-10, KC-135, B-52	4	NAWDC 1, NAWDC 2

Table 2-9: Annual Level of Training Activities at the Fallon Range Training Complex – Environmental Baseline (continued)

Range Activity	Representative Platform	Annual Number of Training Activities	Location[1]
Electronic Warfare			
Electronic Warfare Operations	EA-6B, EA-18G, EP-3, E-2, E-3, C-130, FA-18, F-16, F-35, P-3, P-8, H-60, RC-135, UAS, MC-12, V-22, H-47, AH-1, CH-53 Opposition Forces aircraft: F-15, F-16, F-21, FA-18, F-5	4,428	NAWDC 1, NAWDC 2
Expeditionary Warfare			
Land Demolitions, EOD	EOD Personnel, FBI	86	B-16, B-17, B-19, B-20
Other			
Dismounted Fire and Maneuver	Ground Personnel (.50 cal, 5.56 mm, 7.62 mm caliber weapons)	4	B-17
Ground Manuever Training	HMMWV, MRAP, MATV, and future (JLTV, Stryker, and LAV)	416	Dixie Valley Training Area, B-16, B-17, B-19, Shoal Site
Mission Area Training – Marksmanship	National Guardsmen, Sailors and Reservists, Law Enforcement (5.56 mm, 7.62 mm, 9 mm, 40 mm, 50 mm, 12-gauge caliber weapons, 105 mm howitzer)	231	B-19

[1] NAWDC 1 and NAWDC 2 are working areas within the FRTC airspace used to schedule different areas of the airspace. Aircraft can be shifted into these working areas to allow for deconflicting uses between different training activities. There are nine working areas within the FRTC airspace (4 in NAWDC 1 and 5 in NAWDC 2). Portions of NAWDC 1 overlay B-20 and northern DVTA and portions of NAWDC 2 overlies B-17 and the remainder of the DVTA. The Electronic Warfare Range underlies both NAWDC 1 and NAWDC 2.
Notes: ATV = All-Terrain Vehicle, B = Bravo, COMPTUEX = Composite Training Unit Exercise, EOD = Explosive Ordnance Disposal, FBI = Federal Bureau of Investigation, HARMEX = High-speed Anti-radiation Missile Exercise, HMMWV = High Mobility Multipurpose Wheeled Vehicle, JLTV = Joint Light Tactical Vehicle, JTFEX = Joint Task Force Exercise, LASER = Light Amplification by Stimulated Emission of Radiation, LAV = Light Armored Vehicle, LTATV = Lightweight Tactical All-Terrain Vehicle, MATV = Military All-Terrain Vehicle, mm = millimeter(s), MOA = Military Operations Area, MRAP = Mine Resistant Ambush Protected (vehicle), NAWDC = Naval Aviation Warfighting Development Center, SUV = Sport Utility Vehicle, UAS = Unmanned Aircraft System

2.5 Alternatives Considered but Not Carried Forward for Detailed Analysis

The Navy identified and considered a number of potential alternatives, in addition to those described earlier in this chapter, as the action alternatives. In addition, in the Notice of Intent to prepare an EIS and during the subsequent scoping period, the Navy requested suggestions for potential alternatives to the Proposed Action. The Navy examined each proposed alternative scenario (whether generated internally or proposed by members of the public or other commenting parties) to determine if it was

feasible, and if it met the purpose of and need for the project to provide required land for military training and the screening factors presented in Section 2.2 (Screening Factors). Input from the public was considered and helped the Navy develop the alternatives carried forward for detailed analysis in this EIS. The alternatives that were considered but not carried forward for detailed analysis in the EIS, and the reasons they were not carried forward, are described in this section. The alternatives that were not carried forward did not meet the purpose of or need for the project, were determined not to be practical and/or feasible from a technical and economic standpoint, or would not satisfy the alternative screening factors presented in Section 2.2 (Screening Factors).

2.5.1 Continue Training at the Fallon Range Training Complex in the Current Configuration

This alternative, also known as the "status quo" alternative, would renew the existing FRTC land withdrawals as currently configured. The Navy would not withdraw or acquire any additional land, and there would be no changes to existing restricted airspace at the FRTC. In their comments during the scoping period, Churchill County, Eureka County, Nevada Association of Counties, and other members of the public recommended that the Navy consider this alternative in this EIS.

As discussed in Section 1.5 (Training Needs and the Capabilities Evaluation Process), the FRTC as currently configured does not meet current or future requirement tactically acceptable combat training. Despite continued changes in warfare technology, the existing FRTC bombing ranges have not changed substantially in size or configuration since the 1990s. As such, the FRTC does not currently have enough land and airspace to accommodate realistic modern weapons delivery profiles and tactical ground mobility training.

Non-weapons training occurs within the DVTA, but nearby infrastructure, mining and geothermal development are encroaching on those activities. This encroachment places unrealistic limitations on non-weapons training and compromises aircrew safety, particularly in low-altitude, dark, and low-light conditions. As such, aircrew and Special Forces personnel are unable to safely train or train to tactically acceptable parameters within the DVTA.

The Navy considered this alternative but did not carry it forward for detailed analysis in the EIS. It would not meet the purpose of and need for the project, nor would it satisfy the realistic training environment and safety screening factors.

2.5.2 Modernize Fallon Range Training Complex to Fully Meet the Tactics, Techniques, and Procedures in *90 Days to Combat*

This alternative would increase FRTC airspace and training ranges to fully meet the TTP as set forth in *Ninety Days to Combat* (see Section 1.5, Training Needs and the Capabilities Evaluation Process). Under this alternative, the Navy would reach full TTP compliance and would allow air and ground forces to train in a realistic 360-degree combat scenario for all training scenarios. As Navy policy does not allow public use of any kind to occur within active WDZs or SDZs (OPNAVINST 3550.1A) for safety reasons, implementing this alternative would require almost double the land as that required for the Proposed Action (approximately 1.3 million acres), as well as extensive revisions to special use and civilian airspace. The Navy considered the withdrawal and acquisition of over 1.3 million acres but did not carry it forward for detailed analysis in the EIS, as the Navy considered this proposal not feasible because of severe and disruptive impacts on the local area, which would include the re-route of multiple major U.S. Highways (U.S. Routes 50 and 95, and U.S. Interstate 80), and in light of the greatly increased amount of public lands that would need to be closed to the public for weapons safety considerations.

2.5.3 Alternate Training Locations

The Navy considered numerous alternatives to move training activities in whole or in part to other areas within the Continental United States. As proposed by Eureka County and other stakeholders, these alternatives would involve either sharing existing military land or airspace with other services or moving the FRTC training activities to a new location.

Moving activities to other ranges could potentially meet the training requirements articulated in the purpose and need for the Proposed Action. However, no other existing training range (land or sea) or combination of ranges would be able to accommodate the Navy's mission and tempo at FRTC, particularly for advanced integrated strike warfare training. Given their own missions and full schedules, other existing training ranges would not be able to provide the adequate level of support staff, available land, available airspace, schedule compatibility (i.e., tempo), and infrastructure. Modernizing these ranges to meet tactically acceptable parameters would not be technically feasible at this time, for the reasons set forth below.

The following sections discuss the evaluation of other locations the Navy considered when identifying reasonable alternatives to meet the purpose of and need for the Proposed Action.

2.5.3.1 Naval Air Weapons Station China Lake

NAWS China Lake, in the Mojave Desert near Ridgecrest, California, is the Navy's largest single land range. NAWS China Lake is not presently equipped or configured to support the kind of realistic and integrated training conducted at the FRTC, as its mission is to support Naval Air Systems Command programs by performing research, development, test, and evaluation; logistics; and in-service support for guided missiles, free-fall weapons, targets, support equipment, crew systems, and electronic warfare. These research, development, testing, and evaluation activities use the majority of available training time; the time available to use the land and airspace for other uses is very limited. NAWS China Lake would not be able to accommodate FRTC training along with its current activities. Converting this range to accommodate such training at this time would not be technically or economically feasible, in light of the extensive difficulties that would be entailed in such a conversion and the tremendous expense that would be involved. The proposed expansion of the FRTC does not require such an extensive conversion, as the majority of the lands proposed for expansion are for safety purposes. The change in infrastructure on the FRTC is minimal in comparison to the infrastructure already in place and which would continue to be used.

Moreover, even if the Navy were to undertake such a conversion, doing so would not eliminate the scheduling conflicts that would severely impact tempo requirements, and would cause existing training at NAWS China Lake to be displaced elsewhere or perhaps ultimately cancelled, despite being itself of critical importance to national security.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment and tempo screening factors.

2.5.3.2 Nevada Test and Training Range

The Nellis Air Force Base Range Complex includes the Nevada Test and Training Range, which is the largest contiguous air and ground space in the United States. Similar to NAWS China Lake, the Nevada Test and Training Range is primarily a testing range and lacks many of the Navy-specific training system capabilities necessary for realistic integrated Navy training, including special warfare training.

While developing training systems is possible at the Nevada Test and Training Range, the U.S. Air Force and U.S. Air Force-sponsored training use up nearly all of the complex's available training time. Without terminating the Air Force's existing testing and training activities, the range as currently configured would not be able to support the tempo and level of Navy training, or the scheduling priorities required by the Optimized Fleet Response Plan. Converting this range to accommodate Navy training would be technically feasible but not economically feasible. Even if the Navy were hypothetically able to undertake such a conversion, doing so would not eliminate the scheduling conflicts.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment and tempo screening factors.

2.5.3.3 Utah Test and Training Range

The Utah Test and Training Range, which is approximately 80 miles west of Salt Lake City, Utah, is a Major Test Range and Installation. The Department of Defense primarily uses the Utah Testing and Training Range for testing and evaluating weapon systems that require a very large safety footprint. The Utah Test and Training Range is not a suitable candidate for advanced, integrated Navy training because the Utah Testing and Training Range has its own associated missions to accomplish related to U.S. Air Force platform and weapons system testing. The Utah Testing and Training Range is similarly constrained by the surrounding National Airspace System commercial routes and lacks the required land and airspace, and Navy-specific training systems infrastructure required to support Navy mission areas. The operational tempo of the Fallon ranges is too high for the Utah Testing and Training Range and it also does not have the available range space or infrastructure required to meet the mission requirements of both service's needs. The proposed expansion of the FRTC does not require such an extensive conversion, as the majority of the lands proposed for expansion are for safety purposes. The change in infrastructure on the FRTC is minimal in comparison to the infrastructure already in place and which would continue to be used. The Utah Test and Training Range would require an entirely new set of infrastructure to be able to support the training that occurs at the FRTC.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factors.

2.5.3.4 Hawthorne Army Depot

This alternative would relocate all or portions of training to Hawthorne Army Depot. The Hawthorne Army Depot is a U.S. Army ammunition storage depot located near the town of Hawthorne in western Nevada. Although the depot has some training areas, it lacks any airspace, live-fire training areas, bombing ranges, infrastructure, or capabilities to support Naval Carrier Air Wing training, particularly integrated strike warfare training. It would take in excess of 1.5 billion dollars to replicate the required infrastructure of facilities and training systems that are specific to naval aviation and Naval Special Warfare requirements at NAS Fallon and FRTC. The proposed expansion of the FRTC does not require such an extensive conversion, as the majority of the lands proposed for expansion are for safety purposes. The change in infrastructure on the FRTC is minimal in comparison to the infrastructure already in place at the FRTC and which would continue to be used. The Hawthorne Army Depot would require an entirely new set of infrastructure to be able to support the training that occurs at the FRTC. Additionally, land surrounding the Hawthorne Army Depot would need to be withdrawn or acquired in order to provide the necessary training space similar to the FRTC.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factors. In addition,

modernizing this range to support the integrated training that occurs at FRTC would not be technically or economically feasible.

2.5.3.5 R-2508 Complex

The R-2508 Complex includes all of the airspace and associated land presently used and managed by the three principal military activities in the Upper Mojave Desert region of California:

- NAWS China Lake
- National Training Center, Fort Irwin
- U.S. Air Force Test Center, Edwards Air Force Base

The R-2508 Complex provides the largest single area of overland SUA within the United States and is composed of internal restricted areas, MOAs, Air Traffic Control Assigned Airspace areas, and other SUA. Uses of these areas include bombing ranges, supersonic corridors, low-altitude high-speed maneuvers, radar intercept areas, and refueling areas. This Complex could accommodate some unit-level Navy training. However, advanced, integrated training conducted by carrier air wings at FRTC would routinely conflict with high-priority R-2508 activities. In addition, the Navy and U.S. Air Force use the R-2508 Complex to evaluate the total integrated systems and subsystems of prototype and experimental aerospace vehicles, including subsonic and supersonic flight-test mission operations. The joint testing primacy of the R-2508 Complex schedule cannot support the tempo and level of Navy training, or the scheduling priorities required by the Optimized Fleet Response Plan. Thus, it would not be technically feasible for R-2508 to accommodate such integrated training.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factors.

2.5.3.6 Southern California Range Complex or Virginia Capes Range Complex

The Southern California Range Complex and the Virginia Capes Range Complex are the Navy's two other primary training locations. These complexes offer the levels of training complexity currently carried out at the FRTC. However, unlike the FRTC, which focuses on advanced integrated aviation training and special warfare, these complexes support warfare training for every component of the Navy and U.S. Marine Corps. Ships, submarines, amphibious forces, expeditionary forces, and unit-level through advanced aviation conduct virtually all of their required training in support of the Optimized Fleet Response Plan at these two complexes. The Navy and Marine Corps currently use virtually all of the available training range time at these complexes. Moreover, even if the Navy were to take over the range complexes for Carrier Air Wing training, doing so would not eliminate the scheduling conflicts that would severely impact tempo requirements, nor would it be technically or economically feasible. Furthermore, it would cause existing training at Southern California Range Complex and the Virginia Capes Range Complex to be displaced elsewhere or perhaps ultimately cancelled.

The Navy considered these alternatives but did not carry them forward for detailed analysis in this EIS. These alternatives would not meet the tempo screening factor.

2.5.3.7 Barry M. Goldwater Range Complex

This alternative would relocate all or most of the training that occurs at FRTC to the Barry M. Goldwater Complex, a 1.7 million-acre bombing range in Arizona. The U.S. Air Force, U.S. Marine Corps, and allied forces use this complex intensely, and it lacks the infrastructure or the availability to support Naval Carrier Air Wing training, particularly integrated strike warfare training. It would take in excess of

1.5 billion dollars to replicate the required infrastructure of facilities and training systems that are specific to naval aviation and Naval Special Warfare requirements at NAS Fallon and FRTC at the Barry M. Goldwater Range complex.

Additionally, without terminating the existing training activities, the range as currently configured would not be able to support the tempo and level of Navy training, or the scheduling priorities required by the Optimized Fleet Response Plan. Moreover, even if the Navy were to undertake the required conversion, doing so would not eliminate the scheduling conflicts that would severely impact tempo requirements, nor would it be technically or economically feasible. Furthermore, it would cause existing training at Barry M. Goldwater to be displaced elsewhere or perhaps ultimately cancelled, and would not be technically or economically feasible.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factors. In addition, modernizing this complex to support the integrated training that occurs at FRTC would not be technically or economically feasible.

2.5.3.8 White Sands Missile Range

This alternative would relocate all or most training to the White Sands Missile Range in New Mexico. The White Sand Missile Range and the McGregor Range Complex at Fort Bliss are a contiguous military weapons testing range. This range and complex lack the training areas, bombing ranges, or infrastructure to support Naval Carrier Air Wing training, particularly integrated strike warfare training. It would take in excess of 1.5 billion dollars to replicate the required infrastructure of facilities and training systems that are specific to naval aviation and Naval Special Warfare requirements at NAS Fallon and FRTC at the White Sands Missile Range.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factors. Also, modernizing this range to support the integrated training that occurs at FRTC would not be technically or economically feasible.

2.5.3.9 Create a New Training Range Complex

This alternative would create a completely new training range complex that would fully support the mission of Naval Aviation Warfighting Development Center, which is to provide advanced/integrated strike warfare training to deploying naval aviation and Naval Special Warfare units. The Navy specifically established Naval Aviation Warfighting Development Center at NAS Fallon and selected the FRTC for this training because of its year-round clear weather; relatively low population density; and relatively minor effects on the public's commercial, private, and recreational use of the FRTC and adjacent land, as well as on general civil aviation activities. Training performed at the FRTC currently uses approximately 223,562 acres of land, over 12,256 square nautical miles of airspace, and a vast infrastructure of facilities and training systems that are specific to naval aviation and Naval Special Warfare requirements. In addition, NAS Fallon and FRTC represent over 1.5 billion dollars in infrastructure development that the Navy cannot replicate easily or affordably at any other known location in the continental United States or abroad. The modernization required to sustain realistic and relevant training would add another approximately 684,000 acres of land, which would need to be a contiguous part of any new training complex.

The Navy considered this alternative but did not carry it forward for detailed analysis in this EIS. Although this alternative would meet the purpose of and need for the Proposed Action, recreating and modernizing these capabilities anywhere else would be highly difficult in light of the uncertainties associated with trying to find another location offering the requisite amount of land, types of terrain, suitably consistent weather, and low population density. Ultimately, attempting to create an entirely new complex would likely not be technically or economically feasible generally, nor would it be feasible under current real estate, land use, environmental, and airspace laws and regulations.

2.5.4 Reconfigure Components of the Fallon Range Training Complex Withdrawal

2.5.4.1 Resize Weapon Danger Zones

The U.S. Environmental Protection Agency, NDOW, and members of the public requested that the Navy consider an alternative that would decrease the size of the WDZs to reduce the land needed for withdrawal or acquisition. NDOW also requested that the Navy explore alternatives below a 99.99 percent certainty of containment for live air-to-surface munitions. Department of Defense policy requires a 99.99 percent containment policy for air-to-ground munitions for safety purposes. Decreasing the containment probability might decrease the size of the WDZ for some weapons but would increase the level of risk to the public. With a smaller WDZ, while more land would remain open to the public, the trade-off would be that open public lands would be closer to the target areas that are the focus of Navy air-to-ground munitions training, and these lands would not be under Navy control. Accordingly, the public would be at appreciably greater risk of suffering a direct injury or death as a result of munitions.

Reducing the shape and size of these WDZs would also require that firing ranges or firing azimuths drop to levels below tactically acceptable weapons release parameters (please see Section 1.5.1, Weapons Release Training and Need for Expanded Range Area). For example, the alternative would not meet the requirement for a 180° attack azimuth for Joint Direct Attack Munitions because the WDZ in the suggested configuration would be significantly less than 180°. Additionally, reducing the width of the WDZ would also decrease the range that the Navy could employ Joint Direct Attack Munitions, further reducing training realism.

The Navy considered an alternative with a reduced WDZ size but is not carrying it forward for detailed analysis in this EIS as it would not meet the purpose of or need for the Proposed Action. This alternative would not meet the realistic training environment or safety screening factor.

2.5.4.2 Reconfigure Bravo-16

Churchill County recommended that the Navy consider an alternative that would avoid closing Sand Canyon Road and Simpson Road. This alternative would include either moving the proposed expansion of B-16 2 miles south of Bombing Range Road and adjusting the proposed northern boundary of B-16 to Sand Canyon Road, or adjusting the southern boundary of B-16 to avoid Simpson Road and adjusting the northern boundary to avoid Sand Canyon Road.

While all action alternatives accommodate public access of Simpson Road, adjusting the boundary to avoid Sand Canyon Road would require the reconfiguration of this alternative such that a smaller area would be withdrawn for B-16. Reducing the proposed range size would lead to a corresponding loss of SDZ size. If SDZ reductions occurred, B-16 would not meet the realistic training environment criterion, as the capacity for a 360° field of fire at multiple firing positions for small arms would be lost. These reductions would also compromise the area available for multiple training areas with multiple complex threat and targets to accommodate Immediate Action Drill training. Additionally, removing proposed

withdrawn lands would minimize the use of a variety of terrains available for training, which reduces the Navy's ability to train in a realistic environment.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS, as it would not meet the realistic training environment screening factor.

2.5.4.3 Reconfigure Bravo-17 to the South

The Navy received several suggestions for reconfiguring B-17 to the south. For example, the Theodore Roosevelt Conservation Partnership requested that the Navy withdraw an additional 75,000 (approximate) acres directly south of the existing B-17 range with State Route 839 as the western boundary and approximately in line with the north/south boundary of the current B-17. The new B-17 area, in total, would be approximately 8 miles wide (east to west) and 26 miles long (north to south). The intent of this suggested reconfiguration appears to be that by shifting the impact zone, Navy aircraft would have over 40 degrees of approach from both the north and the south.

However, because B-17 is, and is proposed to continue to be, primarily an air-to-ground munitions delivery range, this alternative would not meet realistic training requirements for air-to-ground tactically acceptable weapons release parameters. Specifically, this alternative with a 40° attack azimuth from the north and south (a total of 80° of attack azimuth) would not meet the requirement for a 180° attack azimuth for Joint Direct Attack Munitions, as the WDZ in the suggested configuration would be significantly less than 180°. The reduced width of the WDZ would also decrease the range at which the Navy could employ Joint Direct Attack Munitions, further reducing the training realism.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment screening factor.

2.5.4.4 Reconfigure Bravo-17 to the East and West

Scoping comments requested that the Navy consider an alternative that would adjust the western boundary of B-17 to avoid State Route 839 and the eastern boundary to avoid Earthquake Fault Road. This alternative would also exclude an area from the BLM withdrawal that is 6 miles wide extending southward from U.S. Route 50 to the Churchill–Mineral County line and next to the existing eastern boundary of the B-17 range.

Implementing this alternative would change the shape of the area available for a WDZ within B-17, which would decrease the firing ranges and firing azimuths for munitions and would not meet realistic training environment requirements for air-to-ground tactically acceptable weapons release parameters. Specifically, this alternative would not meet the requirement for a 180° attack azimuth for Joint Direct Attack Munitions, as the WDZ in the suggested configuration would be far less than 180°. The reduced width of the WDZ would also decrease the range at which the Navy could employ the Joint Direct Attack Munitions, further reducing the training realism.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the purpose of or need for the Proposed Action, nor would it meet the realistic training environment screening factor.

2.5.4.5 Reconfigure B-17 Firing Azimuth to Avoid State Route 839

This alternative would flip the firing azimuth at B-17 so that the firing direction would be from the northwest to the south (180° to 350°) instead of the proposed northeast to the south (10° to 180°) firing direction. Implementing this alternative would also flip the Joint Direct Attack Munitions WDZ and avoid

State Route 839. However, the current boundaries for the Restricted Area and MOAs are just west of the B-17 range to avoid the airspace surrounding the NAS Fallon airfield used for takeoffs and landings. Flipping the firing azimuth would require extending the Restricted Area west to allow for employing the Joint Direct Attack Munitions. Further, aircraft approaching targets at B-17 from the north and west would impinge flights arriving or departing NAS Fallon, presenting a hazard to aviation safety. To alleviate this hazard and implement this alternative, the Navy would need to reduce the target azimuth at B-17 over 60^{o}, which would not meet realistic training environment requirements for air-to-ground tactically acceptable weapons release parameters.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the purpose of or need for the Proposed Action, as it would not create a sustainable airspace nor meet the realistic training environment or safety screening factors. Additionally, the Navy is pursuing an alternative in this EIS (Alternative 3) which avoids relocation of State Route 839.

2.5.4.6 Shift or Reduce Bravo-20 to Avoid the Fallon National Wildlife Refuge

The Navy was asked to develop an alternative to avoid overlapping the Fallon National Wildlife Refuge. One manner in which this could be achieved would be to shift B-20 to the east. However, shifting B-20 to the east would cause the WDZ to extend well over East County Road and the Stillwater Mountain Range. Although potentially providing sufficient land to meet training requirements, this alternative would require the closure of East County Road.

A second option would be to shift B-20 to the north. Such a shift would lead to an overlap between a restricted airspace and local airspace routes. Local FAA routes immediately outside of the current FRTC airspace are not compatible with closures for a restricted airspace. Pilots heavily use the local FAA routes, currently routed between numerous military ranges and airspace (Mountain Home Air Force Base and Oregon National Guard Airspace to the north, Hill Air Force base to the east, and Nellis Air Force Base to the south). Standard routes for aircraft in the national airspace system surround the FRTC airspace; in the specific instance of B-20, airspace route V-6 is immediately north of the current B-20 MOA. Moving B-20 and its associated airspace north would impinge on flights arriving or departing the Reno International Airport and present a hazard to aviation safety.

The Navy also considered reducing the dimensions of the proposed B-20 withdrawal to avoid overlapping the Fallon NWR. As a consequence, the area available to accommodate a WDZ would also be reduced. This area could not accommodate a WDZ that meets the screening factor for air-to-ground tactically acceptable weapons release parameters. Specifically, this alternative would not meet the requirement for the 180° attack azimuth for Joint Direct Attack Munitions, as the WDZ in the suggested configuration would be significantly less than 180°. The reduced width of the WDZ would also decrease the range at which the Navy could employ Joint Direct Attack Munitions, further reducing the training realism. Additionally, reducing the Joint Direct Attack Munitions WDZs means the Navy would need to conduct any training that used the full firing distances for training realism at the already heavily utilized B-17. An increase in training events at B-17 would strain the Navy's ability to complete each of the increased number of individual training events it would be forced to undertake at B-17 under this scenario, which would negatively impact the overall tempo for Advanced Integrated Strike Warfare.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment, tempo screening factors, or safety screening factors, and would not minimize impacts on civilian infrastructure or environmental impacts.

2.5.4.7 Reconfigure Bravo-20 to Avoid Closing Navy's B-20 Access Road

The Navy was asked to develop an alternative to avoid closing the Navy's B-20 Access Road (known locally as Pole Line Road). This Navy road is accommodated by an ROW issued by the BLM to the Navy for the purpose of maintaining B-20 and is currently open to public access. This alternative would necessitate changing the proposed boundaries of B-20, which would also change the shape of the area available for a WDZ. The Navy considered reducing the shape of the WDZ; however, doing so would mean that the firing ranges and firing azimuths drop to levels below those listed in the screening factor for air-to-ground tactically acceptable weapons release parameters. Specifically, this alternative would not meet the requirement for the 180° attack azimuth for Joint Direct Attack Munitions, as the WDZ in the suggested configuration would be significantly less than 180°. The reduced width of the WDZ would also decrease the range at which the Navy could employ Joint Direct Attack Munitions, further reducing the training realism. Additionally, reducing the Joint Direct Attack Munitions WDZs means the Navy would need to conduct any training that used the full firing distances for training realism at the already heavily utilized B-17. An increase in training events at B-20 strain the Navy's ability to complete each of the increased number of individual training events it would be forced to undertake at B-12 under this scenario, which would negatively impact the overall tempo for Advanced Integrated Strike Warfare.

The Navy also considered shifting B-20 to the south and west. This would result in target arrays being located at the bottom of Carson Sink, which frequently is flooded with standing water up to 10 feet deep. The frequency of flooding prohibits the Navy from developing realistic targets. Also, shifting B-20 would require acquisition of additional restricted use airspace, which would affect approaches into Reno International Airport. The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment or tempo screening factor.

2.5.5 Reallocate Training Activities within the Fallon Range Training Complex

2.5.5.1 Reallocate Training Activities from Bravo-16 to Bravo-19

This alternative would reallocate activities from B-16 to B-19. The intent would be to leave open the area west of B-16 for public use. The Navy has historically used B-19 as an air-to-ground range, so it contains unexploded ordnance and weapons debris that are a safety hazard to ground mobility training. The activities that currently occur and are proposed to continue to occur at B-16 are ground based and thus require the training area to be free from explosive hazards, such as unexploded ordnance. Moreover, these activities require a 360-degree firing azimuth, which B-19 cannot accommodate. The Navy must conduct military activities in a manner to ensure the safety of uniformed military personnel and civilian employees within and next to the training range. Because of the differing historical uses of the ranges, B-19 would not be safe for ground-based training activities and would not meet the safety screening factor requirements.

The Navy currently uses B-19 at a high operational level. Due to its heavy usage, reallocating any activities to B-19 would increase the amount of time required to complete training, and the timeline outlined by the Optimized Fleet Response Plan timeline would not be achievable. Further, reallocating B-16 training to B-19 (or the converse) would only end up displacing existing training activities, and at some point would likely require the cancellation of other necessary training as available space and scheduling and training capacity are used up. Implementing this alternative would not meet the tempo screening factor requirements.

Finally, accommodating ground-based training activities at B-19 would not be feasible. B-19 is bounded to the south by Walker River Paiute Reservation, historical sites to the North (hot springs), and to the west by U.S. Route 95, restricting the potential for expansion at B-19. Also, the soil and terrain immediately north and east of B-19 in the Blow Sand Mountains are not suitable for ground-based training activities, as the sand dunes makes ground mobility at B-19 very difficult. Although B-19 would still be available under this alternative, it would remain in its current configuration and thus would not meet the tactically acceptable requirements going forward.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS because it would not meet the purpose of or need for the Proposed Action or the safety and tempo screening factors.

2.5.5.2 Reallocate Training Activities from Bravo-17 to Bravo-19

This alternative would reallocate training activities from B-17 to B-19, with the aim of avoiding or minimizing recreation and public access impacts that would result from the Proposed Action.

B-19 is approximately half the size of the existing B-17 range. At this size, safely containing the proposed WDZs at B-17 within the boundaries of B-19 would be impossible. Reducing the size of the WDZ means that the firing ranges and firing azimuths drop to levels below those listed in the screening factor for air-to-ground tactically acceptable weapons release parameters. Specifically, this alternative would not meet the requirement for the 180° attack azimuth for Joint Direct Attack Munitions, as the WDZ in the suggested configuration would be significantly less than 180°. The reduced width of the WDZ would also decrease the range at which the Navy could employ the Joint Direct Attack Munitions, further reducing the training realism.

Implementing this alternative would not be feasible because the Navy currently uses B-19 at a high operational level. Due to B-19's heavy usage, reallocating activities to B-19 from B-17 would increase the amount of time required to complete training, and the timeline outlined by the Optimized Fleet Response Plan timeline would not be achievable. Conversely, moving training activities from B-19 to B-17 would only end up displacing existing training activities, and at some point would likely require the cancellation of other necessary training as available space and scheduling and training capacity are used up. Implementing this alternative would not meet the tempo screening factor requirements.

B-19 would have to increase in size to fully contain the current Joint Direct Attack Munitions WDZ, let alone the tactically acceptable Joint Direct Attack Munitions WDZ associated with the proposed expansion of B-17. As listed above, B-19 would be difficult to expand to the south because of potential impacts on the Walker River Paiute Reservation, and it cannot expand to the west without relocating U.S. Route 95 or to the north without potentially relocating U.S. Route 50. In addition, B-19 cannot safely expand north because of SUA restrictions.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS because it would not meet the realistic training environment or tempo screening factors.

2.5.5.3 Reallocate Training Activities from Bravo-17 to Bravo-20 (or the inverse)

The Navy received several comments suggesting that training activities at B-17 move to B-20 and that B-17 be released back to the public. Other comments suggested the inverse, moving B-20 activities to B-17 and releasing B-20 lands back to the public. Having both of these ranges allows the Navy to design realistic training scenarios in which aviators can "attack" one set of targets while defending themselves from a separate set of anti-aircraft measures. The Navy cannot conduct this exercise with only one of

these ranges; therefore, this potential alternative would not meet the realistic training environment screening factor.

Also, having multiple ranges allows for multiple bombing scenarios to run simultaneously on the different ranges. Currently, training activities require the capability for dual/concurrent Large Force Exercises. This requirement means that to maintain training capacity, there must be two separate areas where Large Force Exercises activities can occur at the same time. Having only one Large Force Exercise range would mean a 40-percent loss in training capacity, which would be a critical shortfall. FRTC is already scheduled over capacity and turning away training units; losing existing training areas would result in the FRTC not meeting the tempo screening factor.

Having both B-17 and B-20 available for training would allow the Navy to conduct different training scenarios and classes at the same time without interference or an increase in aviation hazards due to an overcrowded airspace. Implementing this alternative would not meet the safety screening factor for safe operation of multiple aircraft.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative would not meet the realistic training environment, safety, or tempo screening factors.

2.5.5.4 Reallocate Dixie Valley Training Area Training Activities to Bravo-20

A configuration alternative considered by the Navy was to make B-20 the primary training area for nighttime training and reduce activities in the DVTA. Churchill County proposed this alternative to eliminate the potential conflict between such training and future geothermal activities, recreation activities, and transmission lines in Dixie Valley. Currently, B-20 is near capacity with existing training activities and moving the large number of DVTA activities would not be possible with the remaining training time available at that range. Reallocating any activities to B-20 from the DVTA would increase the amount of time required to complete training, and the timeline outlined by the Optimized Fleet Response Plan would not be achievable. Additionally, B-20 and the DVTA have different terrains. B-20 is largely a flat playa with a soft substrate unsuitable for vehicle use, while the DVTA is mountainous and reflects the terrain types required for realistic training. Lastly, B-20 contains unexploded ordnance, which makes the terrain unsuitable for the types of non-hazardous training activities that are accomplished within the DVTA.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS. This alternative it would not meet the realistic training environment and tempo screening factors.

2.5.5.5 Relocate Bravo-16 Northeast of Cocoon Mountains

Another suggestion was to relocate B-16 completely to the north and east of the Cocoon Mountains, north of B-19. As the Navy uses B-16 for ground-based training activities, any range relocation must occur on lands that provide adequate area for a 360^{o} area of fire for small arms and are available year-round to meet the tempo criterion for Naval Special Warfare.

A preliminary analysis of the proposed relocation site for B-16 revealed that lands north and east of the existing B-16 range lack the terrain variety of B-16. Further, a large portion of the terrain on the proposed relocation site is not suitable for safe operation during ground-based training, because the soils would not support the weight of vehicles used during training. Any loss of available training lands in the area would reduce the realism of training (the main reason the Navy is proposing B-16 for expansion). Additionally, seasonal flooding frequently impacts the area proposed for relocation. Losing

available training lands due to flooding would reduce the Navy's ability to meet the required training tempo.

The Navy considered this alternative but is not carrying it forward for detailed analysis in this EIS because it would not meet the realistic training environment and tempo screening factors.

2.5.6 Access Alternatives

The concept of an access alternative was developed through the process of working with Cooperating Agencies and Tribal Participants. The Navy looked at each individual type of access and analyzed it separately, as described below.

2.5.6.1 Livestock Grazing on Live-Fire (Bravo) Ranges

The Navy considered an access alternative to establish a grazing program on lands within the proposed Bravo ranges, to the extent compatible with the Navy's mission at the FRTC (Section 3.4, Livestock Grazing, contains a detailed analysis of the potential loss of grazing opportunities). Currently, NAS Fallon and BLM jointly manage grazing within the DVTA through an MOU for managing natural resources. BLM does not support a similar collaborative effort for managing grazing on the Bravo ranges due to concerns for the safety of staff working on an active bombing range.

As noted elsewhere in this EIS, the military training activities that occur within the FRTC's bombing ranges are inherently dangerous and pose a risk to public safety without strict compliance to proper security measures. The areas of the bombing ranges that pose the most significant potential risk to public safety are within the WDZs and SDZs (hereafter referred to as danger zones). A Navy grazing program for the Bravo ranges (including the requested expansion withdrawal areas) would need to consider management of public activities within danger zones to minimize risks to public safety to the extent possible. Minimizing risk would require that any person entering a danger zone fully understand the risks associated with entering these zones.

Some specific requirements that could be imposed on potential grazing lessees would be to hold mandatory annual training for employees expected to work in danger zones and conduct and maintain security clearances for any person entering any restricted access areas of NAS Fallon. The Navy has identified times (2:00 a.m.–6:00 a.m. Monday–Saturday, Sundays, and holidays) where the Bravo ranges would likely not be active, thereby minimizing safety risks to persons entering the danger zones.

However, these access restrictions could, in turn, create a potential livestock safety issue given the need to water cattle regularly. The times available for access would be in in the middle of the night, making water hauling in and around the danger areas difficult. In addition to water hauling, grazing lessees would also have to check engineered water sources, such as wells and tanks, every 32 hours to ensure there are no malfunctions in the systems and the water needs of the cattle are met. Lessees or their employees entering danger zones to tend livestock during times that the Bravo ranges are active (i.e., outside of approved access times) would be at a significant personal safety risk.

Another obstacle to the Navy establishing a grazing management program on bombing ranges is that the authority provided to the Navy under Title 10 (10 U.S.C. section 2667) to award outleases differs significantly from the permitting authorities afforded by BLM under the Taylor Grazing Act (43 U.S.C. sections 315–316). The Navy is required to award agricultural and grazing leases through a competitive bid process that obtains fair market value of the leased area. Per Secretary of the Navy Instruction 11011.47D (U.S. Department of the Navy, 2013), the term for agricultural and grazing leases shall not exceed 10 years. As a result, the Navy outgrant leasing authority has two significant

restrictions/limitations absent from the BLM permitting process: (1) it restricts the available time that a lessee has to recuperate costs associated with infrastructure improvements to a maximum of 10 years, and (2) it eliminates the lessee's option to influence who may receive subsequent leases. Also, the Navy's limited ability to work with existing BLM permittees for access to water and forage resources on adjacent BLM allotments would compromise the potential success of a Navy grazing program. Given the public safety risks and leasing challenges previously discussed, and the incompatibilities with mission requirements, the Navy is not carrying this alternative forward because it would not meet the purpose of or need for the Proposed Action, nor the realistic training environment and safety screening factors.

2.5.6.2 Mining on Live-Fire (Bravo) Ranges

Navy policy does not allow mining or utilities to occur within active WDZs (OPNAVINST 3550.1A) for public safety reasons. By its very nature, the use of ordnance is an inherently dangerous activity that must be mitigated by ensuring personnel and infrastructure unrelated to training activities are not present in areas where ordnance may be fired. Also, these activities would require infrastructure and lighting to operate as well as regular access to the area. The safety screening factors indicate that airspace above Navy-controlled land must be clear of infrastructure presenting a hazard to aviation safety (e.g., towers, cables, or wires). This process includes maintaining an environment free from cultural lighting effects (e.g., human-made lighting such as lights from a city, buildings, streets, and infrastructure) incompatible with the use of Night Vision Devices. Because mining and utilities inherently utilize this type of infrastructure, the Navy considered this concept but is not carrying it forward because it would not meet the purpose of or need for the Proposed Action as well as the realistic training environment and safety screening factors.

2.5.6.3 Renewable Energy Development (Wind and Solar) within Bravo Ranges and Dixie Valley Training Area

Navy policy does not allow utilities to be constructed or situated within active WDZs (OPNAVINST 3550.1A). The Navy considered allowing solar or wind power development to continue within the DVTA. The main conflicts with wind energy development hazards and low flying aircraft include cultural lighting, frequency spectrum interference, and the fact that wind energy development would inhibit radar operation. Wind turbines produce extremely tall towers with large rotating blades that pose a hazard to flight safety and result in false radar returns and a cluttered radar environment. The main concerns with solar development are hazards to low flying aircraft, glint and glare hazards, and interference with infrared and heat sensors. Photovoltaic arrays produce large areas that are an obstacle to ground mobility training, create problems with heat signatures, and pose a flight safety hazard in the form of bright glint and glare to low flying aircraft, both jet and helicopter. Concentrated solar arrays pose a hazard to flight, ground obstacles, and problems with heat signatures. The Navy considered this concept but is not carrying it forward because it would not meet the purpose of or need for the Proposed Action, nor the realistic training environment and safety screening factors.

2.5.6.4 Off-Highway Vehicles within Live-Fire (Bravo) Ranges

An access alternative considered by the Navy was to allow unstructured OHV use within the Bravo ranges that would be compatible with the Navy's mission at the FRTC. As noted elsewhere in this EIS, the military training activities that occur within the FRTC's bombing ranges are inherently dangerous and pose a risk to public safety without strict compliance to proper security measures. The areas of the bombing ranges that pose the most significant potential risk to public safety are within the danger

zones. Allowing OHV use on the Bravo ranges (including the requested withdrawal areas) would create appreciable public risk.

The Navy is concerned that a member of the public could be within the range boundaries. To minimize the potential for impacts on the public from training, the Navy would need to drive or fly over the entire range to ensure that no members of the public remain on the range before engaging in training activities. Clearing the ranges every Monday or the day following a holiday would require a large time investment and would negatively impact the amount of training time available throughout the year. Implementing this alternative would not meet the tempo screening factor requirements as required by the Optimized Fleet Response Plan.

The Navy considered this concept but is not carrying it forward. This concept would not meet the safety or tempo screening factors.

The Navy would allow OHV use to continue on the DVTA under Alternatives 1, 2, and 3. The Navy would also allow structured OHV use (e.g., when used as part of special events and formally scheduled races) on all of the Bravo ranges under Alternatives 2 and 3.

2.5.6.5 Camping and Hiking within Live-Fire (Bravo) Ranges

An access alternative considered by the Navy was to allowing camping and hiking activities within the Bravo ranges that would be compatible with the Navy's mission at the FRTC. As described for OHV activities above, the Navy would need to perform an unknown amount of cleanup and unexploded ordnance clearance to create a safe area for uncontrolled hiking or camping. However, that is not technically or economically feasible for the Navy, and the safety risk to the public would remain. Allowing hiking and camping within the Bravo ranges would conflict with the safety screening factor.

Additionally, the Navy is concerned that a member of the public could be within the range boundaries during times that are outside of approved access times. To minimize the potential for impacts on the public from training, the Navy would need to sweep the entire range for members of the public before engaging in training activities. Clearing the ranges every Monday or the day following a holiday would require a large time investment, which would negatively impact the amount of training time available throughout the year. Implementing this alternative would not meet the tempo screening factor requirements as required by the Optimized Fleet Response Plan.

The Navy considered this concept but it is not carrying it forward. This concept would not meet the safety or tempo screening factors.

The Navy would allow camping and hiking to continue on the DVTA under Alternatives 1, 2, and 3.

2.5.6.6 Open Access to Northeast Portion of Bravo-16

This alternative proposes to leave open the currently withdrawn northern area of B-16. The suggestions for reconfiguring B-16 would result in smaller areas of withdrawal. Reducing the proposed range size would result in a corresponding loss of SDZ size. Reducing the SDZs would not meet the realistic training environment criterion, as the capacity for a 360° field of fire at multiple firing positions for small arms would be lost. Additionally, this action would compromise the area available for training areas with multiple complex threats and targets to accommodate Immediate Action Drill training. Removing proposed withdrawn lands would reduce the variety of terrains available for training, which reduces the Navy's ability to train in a realistic environment. Under any of the alternatives, an SDZ would overlap this area. Navy policy does not allow public land use of any kind to occur within active SDZs (OPNAVINST

3550.1A) for safety reasons. Implementing this alternative would conflict with the safety screening factor.

The Navy considered this concept but is not carrying it forward. This concept would not meet the realistic training environment or safety screening factors.

2.5.7 Governor's Alternative ("Nevada Alternative")

The Nevada Office of the Governor proposed an alternative to realign B-17 by relocating it to the southeast (see Section 2.3.6.2, B-17). The Governor's alternative also proposes minor boundary adjustments to the configurations of B-16 and B-20 with no changes to the boundaries of B-19. The Navy determined that it could incorporate many aspects of the Governor's alternative without detrimental effects on the Navy's ability to train in the FRTC. Accordingly, the Navy developed Alternative 3 to include much of the Nevada Alternative. The discussion below would address both those aspects of the Nevada Alternative that the Navy could not accommodate because they are inconsistent with providing sufficient land for military training while maintaining range safety (see Section 1.4, Purpose of and Need for the Proposed Action), as well as those aspects of the proposal that the Navy has been able to incorporate into one or more of its alternatives.

B-16: The Nevada Alternative identifies the potential loss of public access to Simpson Road, which lies within the existing boundaries of B-16, as a concern, and proposes that the Navy make minor adjustments to the boundary of B-16 to allow public use of portions of Simpson Road. Under the alternatives proposed by the Navy in this EIS, Simpson Road would be closed to public access under Alternative 1. However, under Alternative 2, Simpson Road and the lands south of the road would remain open even though the Navy would include this area within its requested public land withdrawal. Under Alternative 3, the Navy would not withdraw Simpson Road or lands south of Simpson Road, and would also relinquish previously withdrawn lands south of Simpson Road.

While Alternative 1 would restrict the entire B-16 proposed land withdrawal from public access, under Alternatives 2 and 3, the Navy would implement a managed access program, which would allow cultural site visits, wildlife management access, and special events/races at B-16, in addition to Simpson Road remaining open. Under Alternative 3, the currently withdrawn land south of Simpson Road would not be extended and this land would be relinquished back to BLM for reincorporation into the public domain. This aspect of the Nevada Alternative has been incorporated into the Navy's preferred alternative.

B-17: As identified earlier in this discussion, the Nevada Alternative proposes a relocation of the proposed expansion of B-17 that would exclude Nevada State Route 839 and the Fairview Peak area from the proposed public land withdrawal. A portion of Nevada State Route 361 would be realigned outside of the proposed B-17 withdrawal. Additionally, the Nevada Alternative would allow NDOW and special permit hunters to have limited access to the proposed B-17 expansion area for wildlife management and hunting activities. The Governor also requested unrestricted access to the Rawhide Mine and the Don A. Campbell Geothermal Plant. The Navy's Alternative 3 proposes a relocation of B-17 that is largely comparable to the Governor's proposal, in addition to working with NDOW to provide limited access for specified hunting seasons at B-17 (also under Alternative 2) and allowing for access to the Rawhide Mine and Don A. Campbell Geothermal Plant (under all of the Navy's proposed EIS alternatives).

B-20: The Nevada Alternative proposes minor boundary modifications to the proposed configuration of B-20 to exclude East County Road from the public land withdrawal request, to ensure that there would

be no access restrictions in the future associated with the conduct of Navy training activities. All of the Navy's EIS alternatives would allow continued unrestricted public access to East County Road. Under Alternative 3, land east of East County Road is not proposed for withdrawal. Accordingly, this aspect of the Nevada Alternative has been incorporated into the Navy's preferred alternative.

DVTA: The Nevada Alternative proposes to modify the Navy's DVTA public land withdrawal request to ensure continued access by the public for recreation and grazing and by NDOW for wildlife management activities in the Stillwater Mountains, Louderback Mountains, the south end of the Clan Alpine Mountains, and the Sand Springs Range. Currently, the Navy allows public access to DVTA lands and such public access would continue for all lands requested for withdrawal and proposed for acquisition as part of the proposed expansion of the DVTA.

In addition, the Nevada Alternative proposes that the Navy include a 300-foot buffer on either side of the existing Terra-Gen transmission line along State Route 121 to allow for future construction of transmission lines associated with future geothermal development projects. The Navy's proposed alternatives could accommodate 90-foot ROWs immediately west of the current transmission line corridor as well as concurrent use of the existing corridor.

Finally, the Governor requested that the Navy allow public access to and development of high potential geothermal resource areas and active mining claims within the DVTA requested withdrawal area. If this request cannot be accommodated, the Governor requested the Navy work with the State and stakeholders to define those aspects of geothermal exploration and development, as well as mineral exploration and mining activities that could potentially be considered compatible with the Navy's training mission.

Under Alternatives 2 and 3 of this EIS, the Navy is proposing to allow geothermal and salable (e.g., gravel) mineral developments at the DVTA, consistent with restrictions to be defined during the development of site-specific leases, but is not proposing to allow exploitation of locatable minerals. The Navy would be able to accommodate geothermal development in the DVTA because the laws governing this type of development would afford the Navy an opportunity to work with a developer (and with BLM) to ensure that any geothermal development would be conducted in a manner that would not adversely affect military training. However, the Navy is unable to accommodate exploitation of locatable minerals (e.g., gold) because the laws governing these mining activities would not afford the Navy an ability to impose requirements on how any such exploitation activities would be conducted. Accordingly, Alternative 3 would accommodate development of geothermal and salable mineral resources within the withdrawn area comprising the DVTA.

Under Alternative 3, the Navy proposes the creation of special spectrum management areas. These areas would be open to public access and to all forms of appropriative use. BLM would be required, though, to consult with NAS Fallon prior to issuing any permit and would be required to obtain NAS Fallon approval for any federal action that involved the use of electromagnetic spectrum use from stationary or mobile equipment. The creation of these areas is consistent with the Nevada Alternative goals of ensuring these areas are open for public use and economic development.

As discussed above, not all of the Governor's proposed alternative has been adopted by the Navy since not all aspects of that proposal would meet the Navy's purpose of and need for the FRTC Modernization. However, the Navy has worked to incorporate the Governor's proposed alternative to the extent practicable in Alternative 3.

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