
3.4 Livestock Grazing

No Action Alternative

Under the No Action Alternative, the 1999 Congressional land withdrawal of 201,933 acres from public domain (Public Law 106-65) 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 the Navy's authority to use nearly all of the Fallon Range Training Complex's (FRTC's) bombing ranges, affecting nearly 62 percent of the land area currently available for military aviation and ground training activities in the FRTC.

Alternative 1 – Modernization of the Fallon Range Training Complex

Under Alternative 1, the Navy would request Congressional renewal of the 1999 Public Land Withdrawal of 202,864 acres, which is scheduled to expire in November 2021. The Navy would request that Congress withdraw and reserve for military use approximately 618,727 acres of additional Federal land and acquire approximately 65,157 acres of non-federal land. Range infrastructure would be constructed to support modernization, including new target areas, and expand and reconfigured existing Special Use Airspace (SUA) to accommodate the expanded bombing ranges. Implementation of Alternative 1 would potentially require the reroute of State Route 839 and the relocation of a portion of the Paiute Pipeline. Public access to B-16, B-17, and B-20 would be restricted for security and to safeguard against potential hazards associated with military activities. The Navy would not allow mining or geothermal development within the proposed bombing ranges or the Dixie Valley Training Area (DVTA). 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 (EIS)*. The Navy is not proposing to increase the number of training activities under this or any of the alternatives in this EIS.

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

Alternative 2 would have the same withdrawals, acquisitions, and SUA changes as proposed in Alternative 1. Alternative 2 would continue to allow certain public uses within specified areas of B-16, B-17, and B-20 (ceremonial, cultural, or academic research visits, land management activities) when the ranges are not operational and compatible with military training activities (typically weekends, holidays, and when closed for maintenance). Alternative 2 would also continue to allow grazing, hunting, off-highway vehicle (OHV) usage, camping, hiking, site and ceremonial visits, and large event off-road races at the DVTA. Additionally under Alternative 2, hunting would be conditionally allowed on designated portions of B-17, and geothermal and salable mineral exploration would be conditionally allowed on the DVTA. Large event off-road races would be allowable on all ranges subject to coordination with the Navy and compatible with military training activities.

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

Alternative 3 differs from Alternative 1 and 2 with respect to the orientation, size, and location of B-16, B-17, B-20 and the DVTA, and is similar to Alternative 2 in terms of managed access. Alternative 3 places the proposed B-17 farther to the southeast and rotates it slightly counter-clockwise. 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 potentially requiring the reroute of State Route 361. The Navy proposes designation of the area south of U.S. Route 50 as a Special Land Management Overlay rather than proposing it for withdrawal as the DVTA. This Special Land Management Overlay would define two areas, one east and one west of the existing B-17 range. These two areas, which are currently 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.

Environmental Impact Statement

Fallon Range Training Complex Modernization

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3.4 Livestock Grazing

This discussion includes current and planned livestock grazing and outlines the policies that regulate livestock grazing on public lands. It identifies and analyzes impacts on livestock grazing allotments, pastures, and areas that would be affected by the Proposed Action. Section 3.13 (Socioeconomics) analyzes the socioeconomic impacts of restricting or removing livestock grazing on public lands. A restrictive analysis was developed to estimate the potential impacts on grazing permits on allotments that would be affected by the Proposed Action and the alternatives and is discussed in Section 3.13.1.3.1 (Determining Loss of Animal Unit Months).

3.4.1 Methodology

This analysis addresses existing grazing allotments and pastures within the areas proposed for the Fallon Range Training Complex (FRTC) modernization. An analysis of the impacts on counties as a result of the potential implementation of the Proposed Action on grazing allotments and pastures on an economic basis is discussed in Section 3.13 (Socioeconomics).

3.4.1.1 Region of Influence

The region of influence includes grazing allotments on lands within or adjacent to the lands requested for withdrawal and proposed for acquisition for the Bravo (B) ranges and the Dixie Valley Training Area (DVTA) (Table 3.4-1) and includes lands that may not be actively grazed by livestock. Should a specific grazing allotment be affected, the region of influence would extend beyond the lands requested for withdrawal and proposed for acquisition to include the entire allotment. The region of influence also includes any area that could potentially be impacted by construction noise, training noise, sonic booms, or engine noise from aircraft. This region is largely rural and is composed of public and private lands as well as Indian reservations.

There are no changes proposed for the land requested for withdrawal, training activities, public access, or construction on B-19. Therefore, B-19 is not discussed further and would be maintained as discussed in the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015).

3.4.1.2 Regulatory Framework

Livestock grazing on public lands is regulated by several statutes and regulations. Those that pertain to grazing within the region of influence include the following:

- Federal Land Policy Management Act of 1976 (43 United States Code [U.S.C.] section 1701 et seq.)
- Taylor Grazing Act of 1934 (as amended) (43 U.S.C. sections 315–316o)
- Public Rangelands Improvement Act of 1978 (43 U.S.C. sections 1901–1908)
- National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. sections 668dd–668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)
- Reclamation Reform Act of 1982 (43 U.S.C. section 390aa et seq.)
- 43 Code of Federal Regulations (CFR) Part 429
- 43 CFR subpart D, Group 4100
- Nevada Revised Statute Chapter 568 (Taylor Grazing Act)

For the United States (U.S.) Department of the Navy (Navy), grazing activities on Navy installations must be compatible with the Sikes Act (16 U.S.C. section 670a et seq.). Livestock grazing is regulated on Navy lands through the out-grant lease real estate authority granted under 10 U.S.C. section 2667.

The following instructions and manuals, which provide guidance and recommendations, were used in identifying potential land use incompatibilities for this Environmental Impact Statement (EIS):

- Chief of Naval Operations Instruction 3710.7v, *Naval Air Training and Operating Procedures Standardization Program*, and Commander, Naval Air Force Manual 3710.7 (U.S. Department of the Navy, 2016)
- Bureau of Land Management (BLM) Standards and Guidelines for Nevada (Bureau of Land Management, 1997)
- Federal Aviation Administration Aeronautical Information Manual (Federal Aviation Administration, 2017)

3.4.1.3 Approach to Analysis

Information regarding the BLM grazing allotments within the region of influence was obtained from the BLM Rangeland Administration System, which provides grazing administrative support and management reports for the BLM and the public (Bureau of Land Management, 2017). Public reports that were reviewed on the public Rangeland Administration System included allotment information, allotment master reports, authorized use by allotment reports, operator information, and permit schedule information. These reports are generated from data provided by BLM Field Office staff and include information regarding grazing permit information, allotment information, and billing information.

The Navy obtained Geographical Information System (GIS) data for each potentially affected allotment from the BLM in November 2017. These data were used to calculate potential changes to allotment acreage for each alternative and represent the most up-to-date information regarding affected allotments. In addition, these data were used to analyze the potential impact on BLM or Bureau of Reclamation grazing permits that may result from the loss of acres on an allotment. These calculations were done using a restrictive analysis model and are discussed in greater detail in Section 3.13 (Socioeconomics). The BLM provided guidance to the Navy in developing a methodology for how to estimate the potential change in Animal Unit Months (AUMs) for affected allotments. A technical memo was prepared that documents the Navy's approach to determining the loss of AUMs (Supporting Study – Livestock Grazing Allotment Study, available at <https://frtcmmodernization.com>). Since forage is not uniformly distributed across an allotment, a reduction in AUMs for a given allotment would not necessarily be proportional to a percentage decrease in the lands comprising that allotment. The Navy used the following factors to estimate a change in AUMs for each BLM allotment and Bureau of Reclamation pasture:

- Percent of allotment closed to livestock grazing
- Percent of allotment with a greater than 30 percent slope
- Percent of allotment that is greater than 4 miles from water
- Percent of allotment with an annual forage production per acre of less than 100 pounds
- Percent of allotment with an annual forage production per acre between 100 pounds and 300 pounds
- Percent of allotment with an annual forage production per acre greater than 300 pounds

These factors were chosen because they are consistent with BLM parameters and are critical factors in determining how livestock will utilize forage in an allotment (Holechek et al., 2011). It is acknowledged that these factors are influenced by the type and class of cattle, and that cattle can graze on slopes greater than 30 percent slope or will travel over 4 miles to water, but are less likely to do so under satisfactory grazing conditions.

While the restrictive analysis provides the potential change in AUMs on the associated grazing permits due to a loss of acreage on the allotment, significance determinations for purposes of analysis of Livestock Grazing per se were made based on the combination of the percentage of allotment impacted, the quality of forage on removed acres, and range improvements lost under the Proposed Action. The range improvements identified may not be a comprehensive list and have not been field verified. The AUM changes are presented by allotment in Section 3.13 (Socioeconomics) in Table 3.13-13 and Table 3.13-23.

The Navy worked closely with rangeland management specialists at the BLM Stillwater and Winnemucca Field Offices to gather additional information on the affected allotments. BLM staff provided information from the internal Rangeland Administration System and the Rangeland Improvements Projects Systems upon request. Additionally, the Navy subject matter expert performed allotment visits and conducted a physical records search of the potentially affected BLM allotments and permittee files in the summer and fall of 2017 (Bureau of Land Management, 2017–2019).

The Navy has reached out to all permittees with allotments that would potentially overlap the requested for withdrawal for additional information regarding range improvements and water sources that occur in each allotment. Information gathered was used in the development of this section. The Navy has worked with permittees and the BLM to identify all water sources (including water hauling locations) and revised the AUM restrictive analysis based on these updated water sources. Potential impacts on grazing have been updated accordingly between the Draft and Final EIS due to the addition of this data. While substantial efforts were made to include all range improvements that have been identified and located on each allotment, the Navy and BLM acknowledge that the information gathered to this point concerning potentially compensable range improvements may be incomplete. Individuals who would be affected by implementation of alternatives would be afforded an opportunity to provide additional information concerning any such range improvements subsequent to issuance of the Navy's Record of Decision. These efforts confirmed and updated publicly available information on the Rangeland Administration System. Affected allotments are identified in Table 3.4-1 and are depicted in Figure 3.4-1, Figure 3.4-3, Figure 3.4-5, and Figure 3.4-7.

The Bureau of Reclamation provided GIS data for Bureau of Reclamation grazing lands within the region of influence in October 2017. Additional information regarding Bureau of Reclamation grazing areas was obtained from the Bureau of Reclamation's *Grazing Management Plan Final Environmental Impact Statement Lahontan Basin Area Office Newlands Project, Nevada Mid-Pacific Region* (Bureau of Reclamation, 2014) and the Navy's *Final Environmental Assessment for Proposed Addition of Training Activities and Range Enhancements at Naval Air Station Fallon on Training Range Bravo-16 Churchill County, Nevada* (U.S. Department of the Navy, 2014a).

3.4.1.4 Public Concerns

The public raised several concerns regarding potential impacts on existing livestock grazing practices and management during scoping and the public comment period on the Draft EIS. The public was largely concerned with how the Proposed Action would limit or otherwise affect specific grazing allotments

within the region of influence. In particular, the public was concerned about the potential losses of AUMs, winter grazing lands, and rangeland improvements (fencing, corrals, seedings, stockwater development, wells, tanks, and pipeline) that could result from the Proposed Action.

Some counties expressed concerns about the potential loss of revenue received from grazing-related funds. Counties where federal grazing districts are located may receive a portion of certain grazing-related funds received by the U.S. Treasury under the authority of the Taylor Grazing Act (43 U.S.C. section 315[i]), with the initial distribution of such funds being made to the State and distributed thereafter to the relevant counties as determined by the State Legislature.

The Nevada Department of Agriculture and multiple counties have expressed their concerns about the potential loss of water rights associated with grazing operations as well as the impact that a loss of water rights might have on the region's customs and culture (i.e., potential loss of multi-generational family ranches). During public scoping, Churchill and Eureka Counties requested that the Navy work with the BLM and grazing permittees to identify potential impacts on livestock grazing. The Navy met with several of the potentially affected BLM permit holders and interested individuals in October 2017 to discuss potential alternatives and impacts on individual allotments. The Navy used information gathered at this meeting in the development of this section. The Navy provided the opportunity to meet individually with permittees and the BLM between February 26 and March 1, 2019.

During the public comment period, the Navy received numerous comments from permittees regarding their livestock operations. 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. The Final EIS further describes the proposed process for determining payments for losses due to cancelled or modified federal grazing permits and allotment improvements.

For further information regarding comments received during the public scoping process and the public comment period on the Draft EIS, please refer to Appendix E (Public Participation) and Appendix F (Public Comments and Responses).

3.4.2 Affected Environment

This section serves as the environmental baseline and describes current livestock grazing within the region of influence. It first gives an overview of livestock grazing in the region of influence before discussing the affected environment for B-16, B-17, B-20, and the DVTA. No grazing occurs on B-19, and FRTC modernization does not propose to expand B-19. Accordingly, no changes in grazing would be experienced with retention of B-19 as part of the FRTC modernization action. Table 3.4-1 identifies the livestock grazing allotments (BLM) and pastures (Bureau of Reclamation) within the region of influence. The BLM has identified the management status of allotments within the region of influence as belonging to one of three objective categories according to rangeland resource characteristics, potential, opportunities, and needs: maintain the current resource condition, improve the current resource condition, and custodially manage the existing resource condition (Bureau of Land Management, 1982, 1989).

Table 3.4-1: Allotments Within the Affected Environment

Allotment Name	Period Begin (MM/DD) ¹	Period End (MM/DD) ¹	Total Acres ²	Permitted AUMs	Livestock Kind	Livestock Permitted	Management Status ³	Affected Environment
Bell Flat	12/01	03/31	91,997	3,688	Cattle	927	Improve	B-17, DVTA
Bucky O'Neill	11/15	04/15	40,946	1,500	Cattle	300	Maintain	DVTA
Copper Kettle	03/01	02/28	108,220	2,333	Cattle	219	Improve	B-20
Cow Canyon	10/01	04/15	149,168	2,382	Cattle	366	Improve	DVTA
Dixie Valley	06/01	05/31	275,782	6,341	Cattle	528	Improve	DVTA
Eastgate	11/01	04/15	311,221	9,770	Cattle	1,503	Improve	B-17
	04/16	10/31				239		
Frenchman Flat	10/15	03/15	70,323	2,001	Cattle	403	Maintain	DVTA
Horse Mountain	11/01	03/31	63,184	3,000	Cattle	601	Maintain	B-16
Humboldt Sink	05/01	11/30	190,728	1,582	Cattle	9	Custodial	B-20
	04/01	11/30				189		
La Beau Flat	10/01	04/15	122,640	3,035	Cattle	468	Maintain	B-17, DVTA
Lahontan	11/01	03/31	77,882	1,155	Cattle	232	Maintain	B-16
Mountain Well-LaPlata	03/01	02/28	139,610	8,004	Cattle	667	Maintain	DVTA
Phillips Well	12/01	03/31	80,618	1,450	Cattle	364	Maintain	B-17, DVTA
Pilot-Table Mountain	11/01	03/31	538,322	7,900	Cattle	900	Improve	B-17
	04/01	10/31			Cattle	150		
	03/01	02/28			Horse	12		

Table 3.4-1: Allotments Within the Affected Environment (continued)

Allotment Name	Period Begin (MM/DD) ¹	Period End (MM/DD) ¹	Total Acres ²	Permitted AUMs	Livestock Kind	Livestock Permitted	Management Status ³	Affected Environment
Rochester ⁴	01/01	10/31	255,390	3,963	Cattle	138	Maintain	B-20
	04/01	04/24			Sheep	700	Maintain	
	03/01	02/28			Sheep	537	Maintain	
	03/01	02/28			Cattle	166	Custodial	
	04/01	12/30			Cattle	44	Maintain	
Salt Wells	10/15	04/15	51,421	1,624	Cattle	270	Maintain	DVTA
Sheckler Pasture ⁵	04/01	11/30	22,210	145	Cattle	-	Relinquish (2,611) Retain (19,599)	B-16
White Cloud	10/01	03/31	79,647	1,884	Cattle	115	Maintain	B-20, DVTA
	04/01	09/30				199		

¹Period End and Period Begin are identified in the permit according to the BLM's Rangeland Administration System. This permit or lease is issued under the authority of Section 402(c)(2) of the Federal Land Policy Management Act of 1976 as amended, and typically contains the same terms and conditions as the previous permit or lease. This permit or lease may be cancelled, suspended, or modified, in whole or in part to meet the requirements of applicable laws and regulations.

²Acres were calculated using ArcGIS data provided by the BLM (UTMz11 NAD83 projection) and may not be consistent with acres reported in the BLM's Rangeland Administration System.

³"Maintain" means to maintain the current resource condition; "Improve" means to improve the current resource condition; and "Custodial" means to custodially manage the existing resource condition.

⁴This allotment has multiple names (e.g., Rochester Common, South Rochester, etc.); however, in this document the Navy is referring to it as "Rochester," and this area is an allotment with multiple permittees on it.

⁵Bureau of Reclamation managed pasture. Bureau of Reclamation (2014) proposes to relinquish portions of the Sheckler Pasture to the BLM. Sources: (Bureau of Land Management, 2017; Bureau of Reclamation, 2014; U.S. Department of the Navy, 2014a).

Livestock grazing has had an important and historical role in the state of Nevada and continues to represent local customs and cultural traditions that influence day-to-day life for many individuals and families in the State, especially in its rural areas. Farms and ranches in Nevada are relatively large compared to the national average, and the majority (83 percent) of Nevada's agricultural operations (most of which are family owned) are primarily engaged in raising livestock (Nevada Department of Agriculture, 2017). It is common for livestock grazing by one operator to occur in more than one county. As such, changes to AUMs can sometimes affect socioeconomics throughout the region, not just in the county where the AUMs are located. Additional details regarding the socioeconomic role of livestock grazing and ranching is described in Section 3.13 (Socioeconomics).

The percent of allotments affected is discussed in Section 3.4.3 (Environmental Consequences). Grazing within the region of influence occurs throughout the year, with much of the use concentrated during winter and spring months. Summer grazing is common at higher elevations, while winter grazing areas are primarily found in lower elevations associated with an arid climate.

Nevada's climate is arid with large variations in temperature. The region of influence falls within the geographic feature known as the Great Basin, which is in the Basin and Range Province. Elongated mountain chains alternating with flat, dry basins characterize this province. The western portion of the Great Basin averages 9 inches of precipitation per year, while the Fallon area averages 5 inches per year.

Vegetation production within most of the region of influence is relatively low. Playas, which have little to no vegetation, occupy much of the lowest elevation levels in the region. At these lower elevations, where temperatures are the hottest and the soil is most saline, the dominant vegetation consists of members of the Chenopodiaceae (Goosefoot family). Here, saltbush (*Atriplex*) and greasewood (*Sarcobatus*) species are common as well as winterfat (*Ceratoides lanata*), four-wing saltbush (*Atriplex canescens*), and spiny hopsage (*Grayia spinosa*). Asteraceae are also common in these areas. Winterfat is a species that has been identified as an important winter forage in the region due to its high protein content and ability to sustain cattle over the winter. At slightly higher elevations, where the soils are less saline and more moisture is available, varieties of sagebrush (*Artemisia* spp.) become the dominant vegetation. Cheatgrass (*Bromus tectorum*) is known to often form in large, dense stands in these areas, particularly after fires or major soil disturbance. The mid-to-upper range elevations support riparian habitats in canyons and washes.

Fremont cottonwood (*Populus fremontii*), willows (*Salix* spp.), and Wood's rose (*Rosa woodsia*) are species commonly encountered in these areas (Supporting Study – Plant Community Surveys and Mapping Report, available at <https://frtcmodernization.com>). Meanwhile, in the upper elevations, the dominant vegetation changes to pinyon-juniper (*Pinus* spp., *Juniperus* spp.) woodlands, which generally have an understory consisting of sagebrush, rabbitbrushes, and other common shrubs. These woodlands provide a valuable resource for livestock forage, but livestock carrying capacity is variable depending on the characteristics of the understory (Tueller, 1989).

With the exception of small isolated strands, grasslands are incredibly rare in Nevada (Tueller, 1989). Perennial grasses occur throughout all elevations, interspersed with shrubs and trees. Perennial grasses within the region of influence include Indian ricegrass (*Achnatherum hymenoides*), desert needlegrass (*Achnatherum speciosum*), needleandthread (*Hesperostipa comata*), galleta (*Pleuraphis jamesii*), crested needlegrass (*Achnatherum parishii* var. *depauperatum*), bottlebrush squirreltail (*Elymus elymoides*), Sandberg's bluegrass (*Poa secunda*), King's desertgrass (*Blepharidachne kingii*), fluffgrass (*Erioneuron*

pulchellum), threeawn (*Aristida*), sand dropseed (*Sporobolus cryptandrus*), basin wildrye (*Leymus cinereus*), and alkali sacaton (*Sporobolus airoides*) (U.S. Department of Agriculture, n.d.).

Historic overgrazing and wildland fires have contributed to the establishment of invasive plant species within the region of influence (Eiswerth & Shonkwiler, 2006). Current livestock management and regulations have diminished overgrazing throughout the region and reduced the spread of invasive species. Grazing may be used as a habitat management tool (Bates & Davies, 2014) as well as an effective tool to reduce the potential for wildfires, which could potentially lessen the spread of invasive grasses.

Portions of the grazing areas within the region of influence are grazed by livestock more extensively than others. In most grazing areas in the region, parts of the overall area are grazed more extensively as a practical matter, and other areas are used only a little or effectively not at all due to factors such as distance from water or terrain. In addition to livestock grazing, rangeland improvement projects (e.g., fencing/cattleguards, stock water development, corrals, seedings) have been implemented within the region to aid in the distribution of livestock and improve grazing management (Bureau of Land Management, 2014).

3.4.2.1 Bravo-16

B-16 is located southwest of Naval Air Station (NAS) Fallon and west of U.S. Route 95. The affected environment for B-16 includes BLM and Bureau of Reclamation land. Figure 3.4-1 and Figure 3.4-2 show BLM allotments and Bureau of Reclamation pastures within the affected environment for B-16 and range improvements that have been identified within the affected environment for B-16. The range improvements identified may not be a comprehensive list and have not been field verified.

B-16 currently overlaps portions of the Lahontan and Horse Mountain Allotments and the Bureau of Reclamation's Sheckler Pasture. The Cleaver Peak Allotment and the Southeast Sheckler #1 and #2 pastures are adjacent to the requested B-16 withdrawal area.

Livestock grazing is not allowed within the existing withdrawn and closed lands of B-16. The Bureau of Reclamation manages livestock grazing within the withdrawn but open lands of B-16 (approximately 4,563 acres) (U.S. Department of the Navy, 2014b, 2015). In 2014, the Navy decided to close areas within B-16 and construct a fence around these areas as part of its range enhancement (U.S. Department of the Navy, 2014a); however, these improvements have yet to be constructed and these lands are currently open to the public.

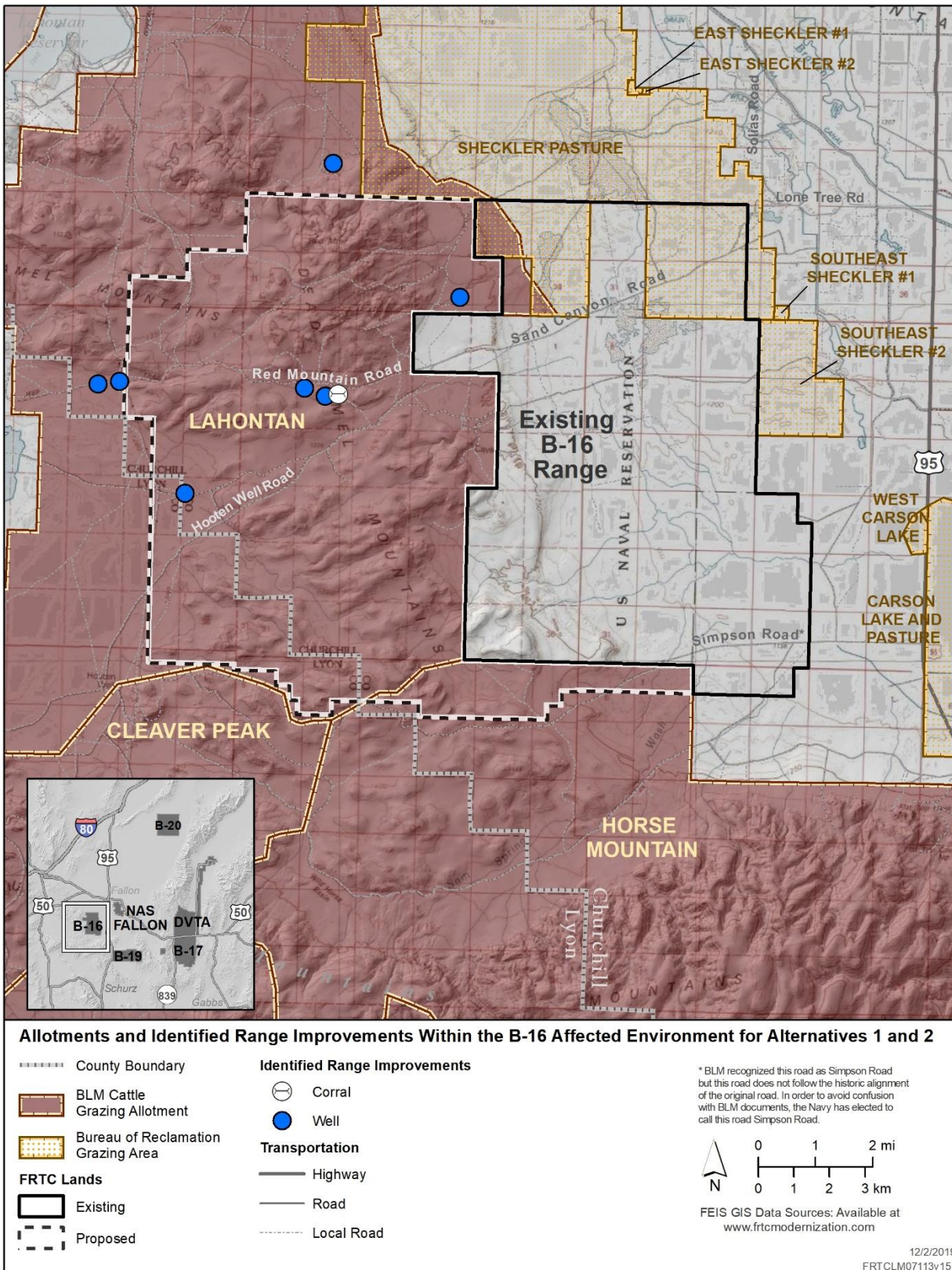


Figure 3.4-1: Allotments and Identified Range Improvements Within the B-16 Affected Environment for Alternatives 1 and 2

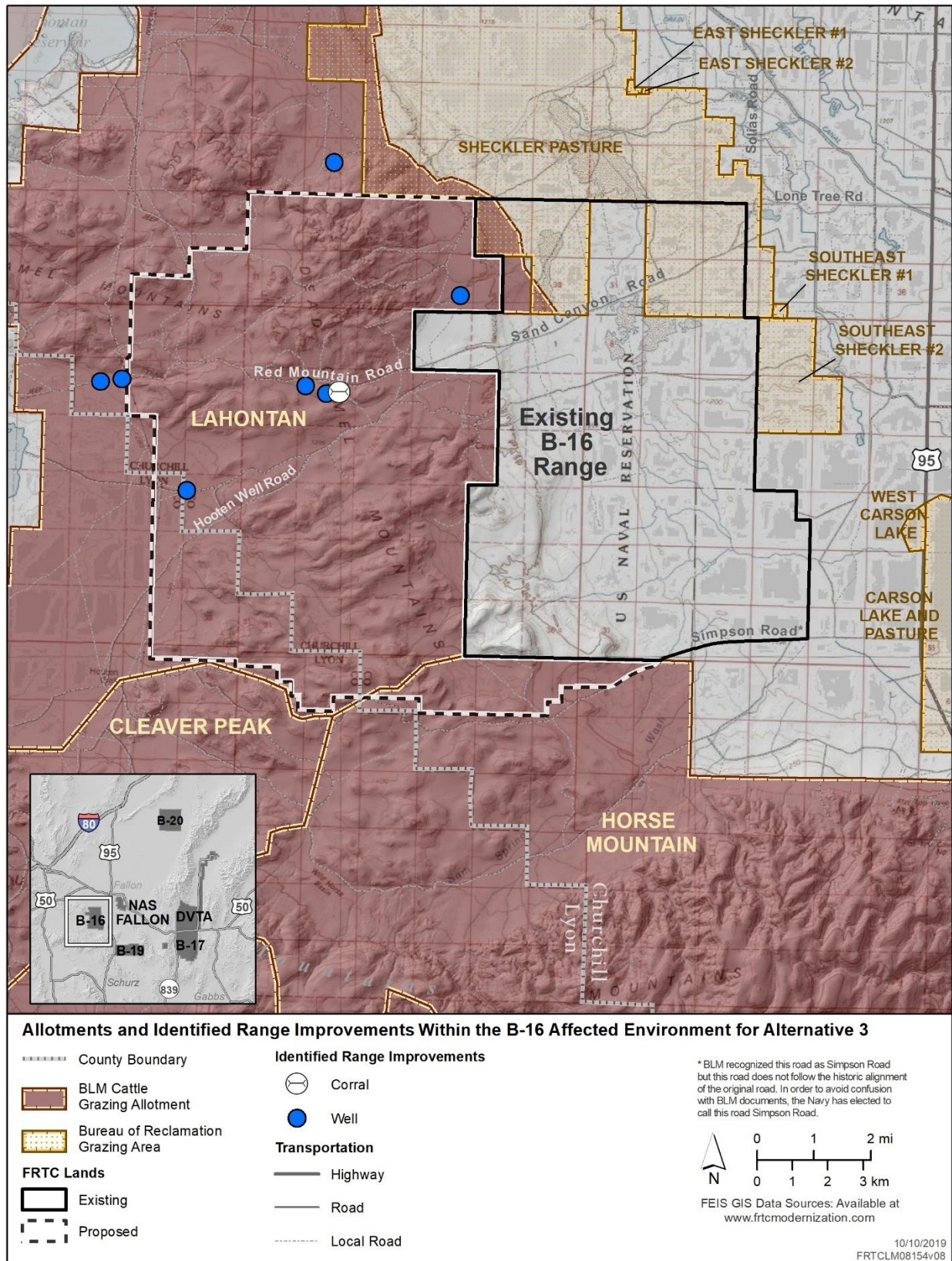


Figure 3.4-2: Allotments and Identified Range Improvements Within the B-16 Affected Environment for Alternative 3

The Bureau of Reclamation's Sheckler Pasture overlaps northern B-16. This pasture is part of the Bureau of Reclamation's Newlands Project. The Bureau of Reclamation currently issues annual livestock grazing use authorizations on the Sheckler Pasture, including the B-16 lands it overlaps, but it is anticipated that this will be revised to incorporate issuance of a multi-year lease (U.S. Department of the Navy, 2014b).

The Bureau of Reclamation is relinquishing portions of the Sheckler pasture and Southeast Sheckler #1 and Southeast Sheckler #2 pastures to the BLM. Southeast Sheckler #1 Pasture is less than 1 mile east of the existing B-16. Southeast Sheckler #2 Pasture is directly east of the existing B-16 range. To avoid any encumbrances on land to be relinquished, no long-term grazing leases are being issued on these lands (Bureau of Reclamation, 2014).

The existing B-16 is largely located within a relatively flat area known as the Lahontan Depression Valley. Within B-16, this valley is primarily underlain by soils within the appian-playas association (Natural Resources Conservation Service, 2017; Tierra Data Inc., 2008). The northwest trending Dead Camel Mountains are west of B-16, within the B-16 expansion area. These mountains are generally sandy and of varying terrain.

Surface water in the B-16 affected environment is composed of ephemeral washes. No perennial or intermittent waters have been identified within the affected environment for B-16, but water may pond seasonally in low areas (Section 3.9, Water Resources). The Bureau of Reclamation constructed a new bypass canal off the V-Line Canal in 2017 to provide flood protection for the City of Fallon. The V-Canal is located east of B-16. Bureau of Reclamation will use this bypass as needed in future high-water years. In addition, 39 wells have been identified within the proposed boundary of B-16, five of which were identified as being used for stockwater and are discussed in Section 3.9 (Water Resources).

B-16 and the surrounding areas have relatively low forage production. Vegetation within B-16 consists mainly of black greasewood plant communities (e.g., black greasewood-alkali seepweed) (Tierra Data Inc., 2008). The area west of the existing B-16 has relatively diverse vegetation with a good representation of upland vegetation alliances. This area is largely composed of cool semi-desert scrub and grassland alliances, which usually includes a high cover of cheatgrass as well as various shrubs (Supporting Study – Plant Community Surveys and Mapping Report, available at <https://frtcmmodernization.com>).

3.4.2.2 Bravo-17

B-17 is east of NAS Fallon and south of U.S. Route 50. The surrounding area is composed primarily of BLM and Navy (i.e., B-19 and Shoal Site) land. There are approximately three private parcels within BLM-administered land and three private land inholdings within BLM-administered land. Figure 3.4-3 and Figure 3.4-4 show allotments in the affected environment for B-17 and range improvements that have been identified within the affected environment for B-17. The range improvements identified may not be a comprehensive list and have not been field verified. Livestock grazing is not allowed within the existing boundary of B-17 but is allowed at the Shoal Site, which is west of B-17 (U.S. Department of the Navy, 2014b).

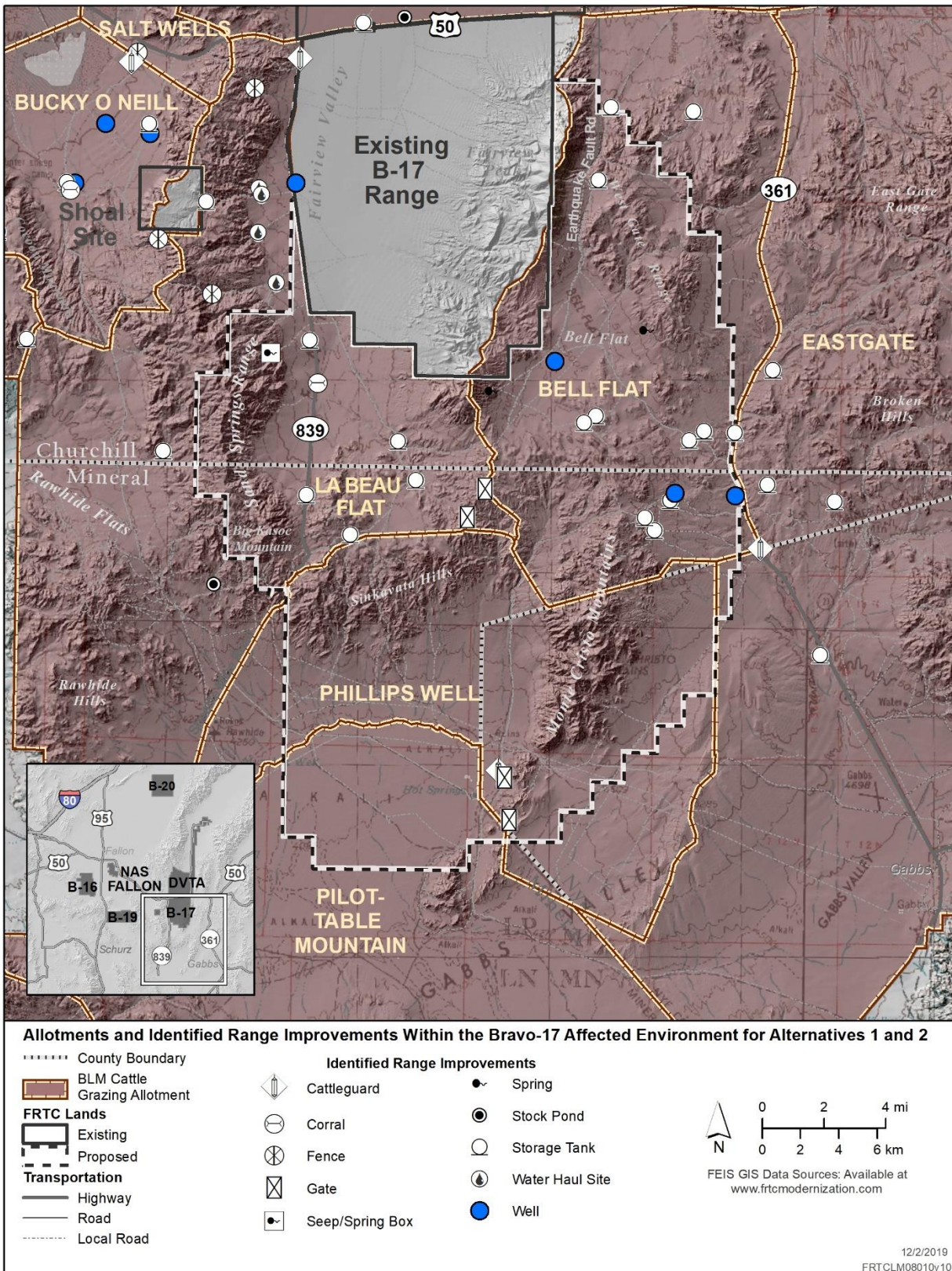


Figure 3.4-3: Allotments and Identified Range Improvements Within the Bravo-17 Affected Environment for Alternatives 1 and 2

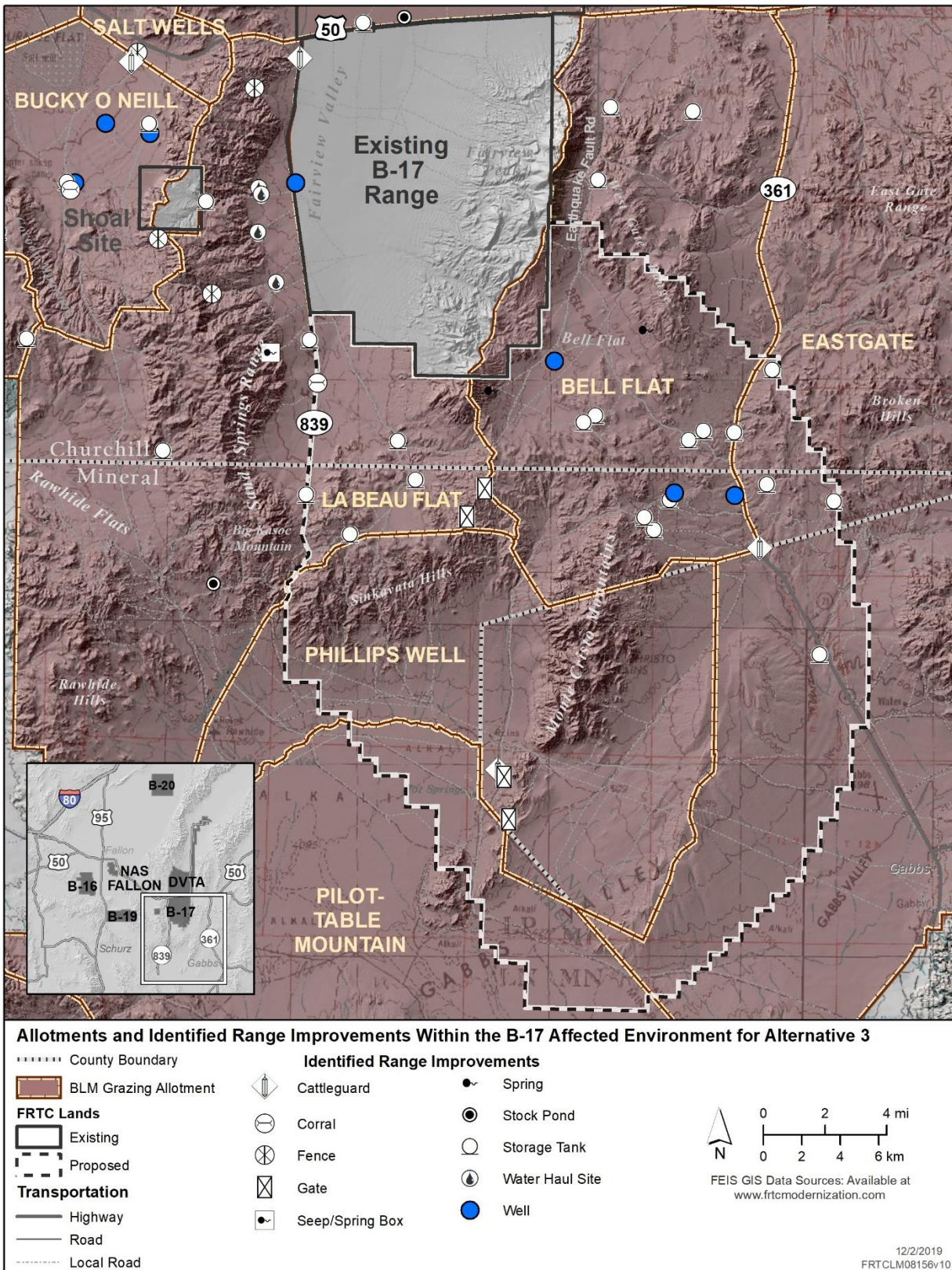


Figure 3.4-4: Allotments and Identified Range Improvements Within the Bravo-17 Affected Environment for Alternative 3

B-17 currently overlaps portions of the Bell Flat Allotment, and is adjacent to the La Beau Flat Allotment. The Eastgate, Phillips Well, and Pilot-Table Mountain allotments are also within the affected environment for B-17. The existing B-17 range is within the Fairview Valley and includes the western foothills of the Fairview Range. Fairview Valley is bounded to the west by the Sand Springs Range and by Fairview Peak and Slate Mountain to the east. The La Beau Flat, which is an alkaline flat underlain by alluvial deposits and silty clay, is within B-17. The surrounding mountains are largely gravelly and steep with some rocky outcrops. Gabbs Valley is south of B-17, within the affected environment area for B-17.

There are no perennial streams in B-17 or the proposed B-17 expansion areas. There are ephemeral washes around B-17, which tend to drain into the La Beau Flat. Floodwater also drains into an alkali flat south of B-17 into Gabbs Valley where floodwater is known to pool (Eaken, 1962). There are 10 wells identified within the B-17 expansion areas, seven of which are known to be used as stock water and are discussed in Section 3.9 (Water Resources).

Vegetation within B-17 is primarily dominated by Bailey's greasewood communities. The dominant vegetation in this area is cool semi-desert scrub and grassland with large areas of Bailey's greasewood shrubland. There is some cool temperate forest and woodlands (i.e., Utah Juniper/Shrub Understory Woodland) in the mountainous areas, particularly around Fairview Peak (Supporting Study – Plant Community Surveys and Mapping Report, available at <https://frtcmernization.com>). Winterfat has been identified by the BLM as an important forage for the La Beau and Bell Flat allotments in the areas requested for withdrawal within B-17.

Although annual vegetation growth varies, the area has relatively low forage production. However, there are areas of higher forage production within Gabbs Valley in the Phillips Well and Pilot Table Mountain allotments (Natural Resources Conservation Service, 2017). Field surveys performed in 2017 found this area to be inundated and sparsely vegetated by intermountain greasewood wet shrubland, which is composed largely of cheatgrass and various shrubs (Supporting Study – Plant Community Surveys and Mapping Report, available at <https://frtcmernization.com>).

3.4.2.3 Bravo-20

B-20 is north of NAS Fallon and the Stillwater National Wildlife Refuge, and east of Fallon National Wildlife Refuge. The surrounding area includes BLM, Bureau of Reclamation, and U.S. Fish and Wildlife Service (USFWS) land (e.g., the Fallon National Wildlife Refuge), as well as private land and Lyon County Conservation Easements adjacent to USFWS land. Figure 3.4-5 and Figure 3.4-6 show BLM allotments within the affected environment for B-20 and range improvements that have been identified within the affected environment for B-20. The range improvements identified may not be a comprehensive list and have not been field verified. Livestock grazing is not allowed on the existing B-20. The Copper Kettle and White Cloud allotments overlap the existing B-20. The Copper Kettle, White Cloud, Humboldt Sink, and Rochester (also known as Rochester Common or South Rochester; henceforth referred to as "Rochester") allotments overlap portions of the B-20 affected environment. Livestock grazing is also currently not allowed within the boundaries of the Fallon National Wildlife Refuge or the Stillwater National Wildlife Refuge.

B-20 is located in the Carson Sink, which is a relatively flat salt marsh between the Humboldt and Stillwater Mountain Ranges. The northwestern portion of the B-20 affected environment overlaps the Humboldt Mountains. The Humboldt and Stillwater Mountains are rocky mountains with steep slopes and canyons.

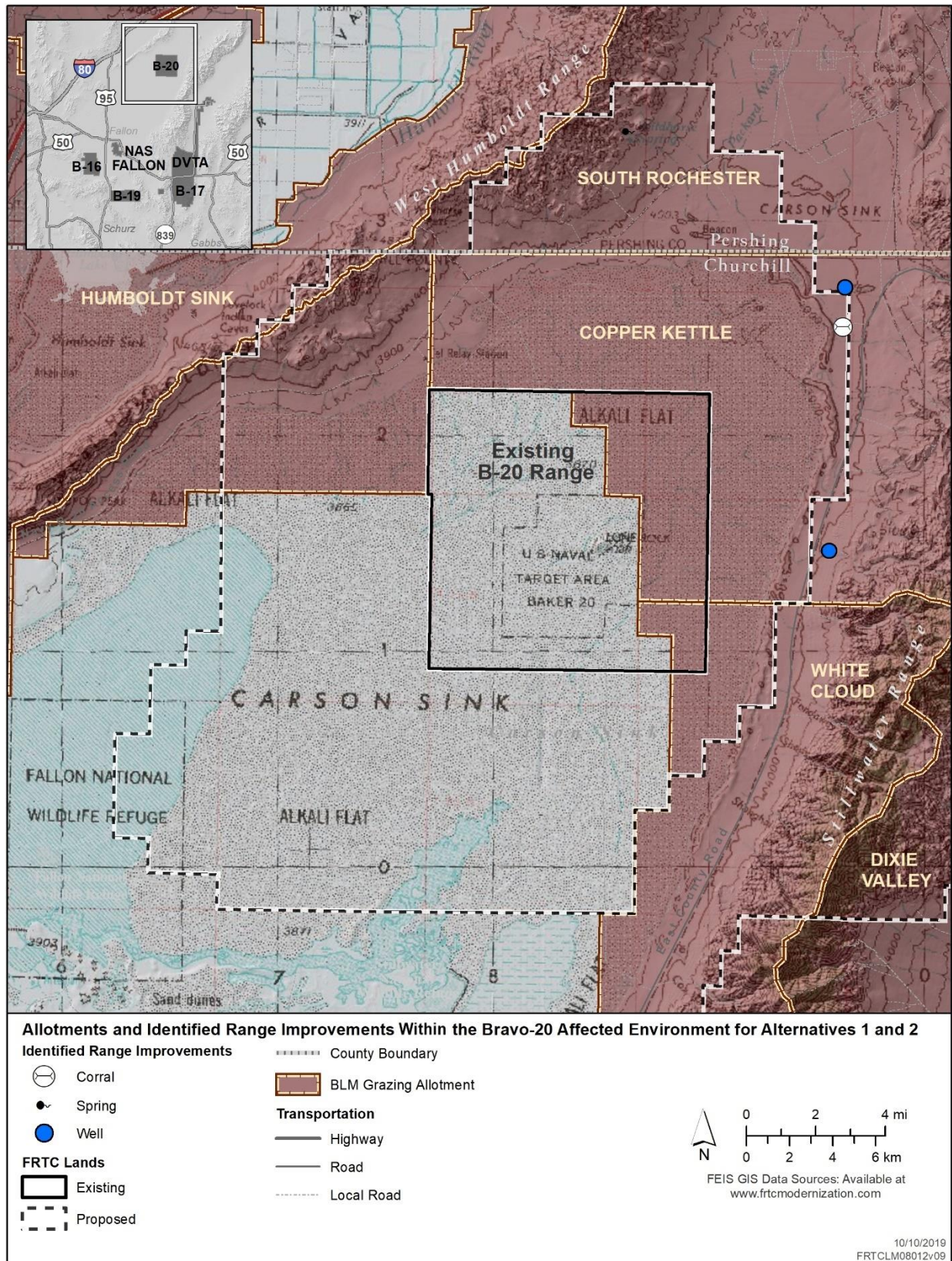


Figure 3.4-5: Allotments and Identified Range Improvements Within the Bravo-20 Affected Environment for Alternatives 1 and 2

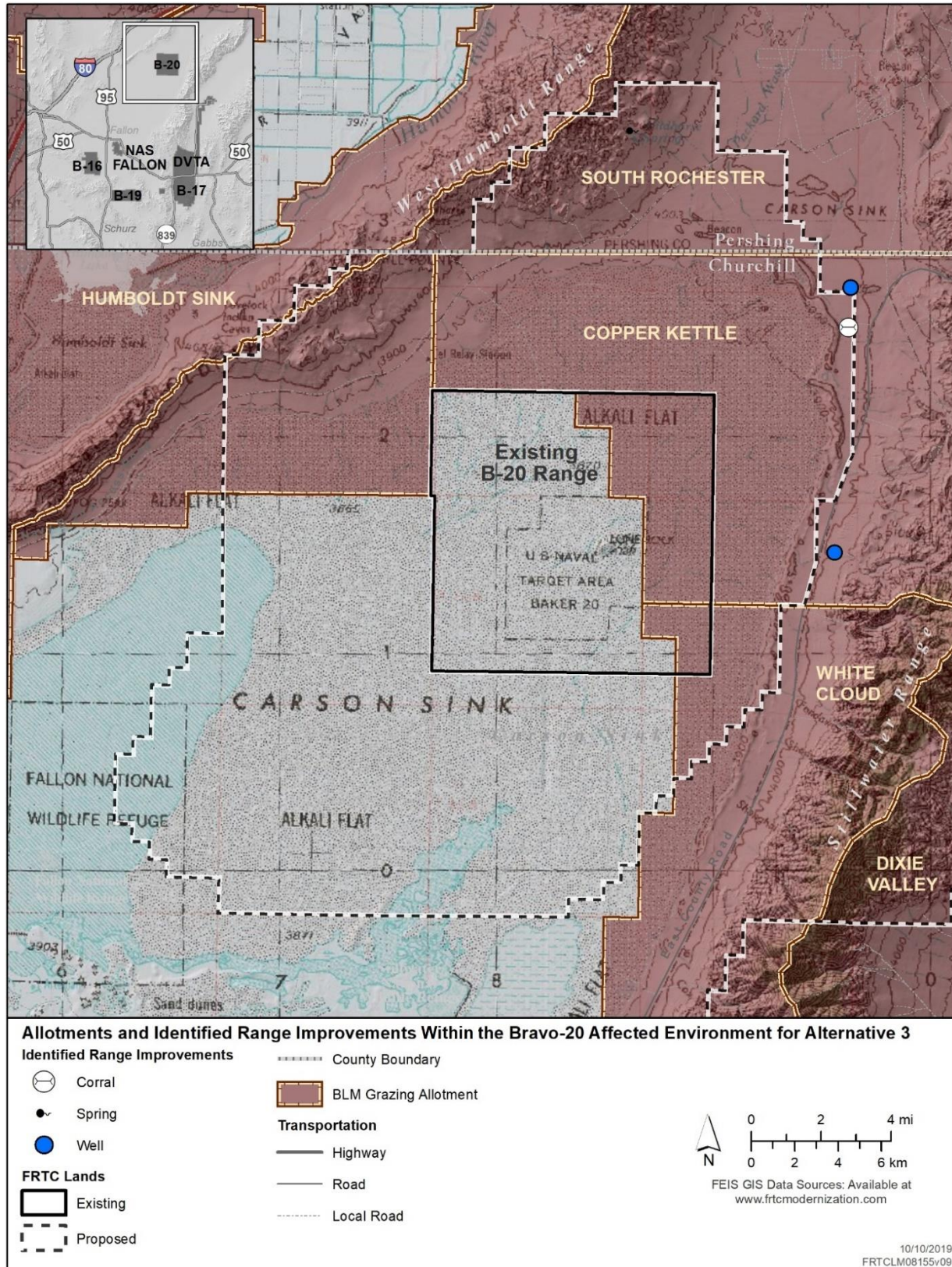


Figure 3.4-6: Allotments and Identified Range Improvements Within the Bravo-20 Affected Environment for Alternative 3

The Carson Sink is the terminus of both the Carson River and the Humboldt Rivers, and may be inundated during wet years; water is known to pond on the playas. There are ephemeral washes west and east of B-20 within Humboldt and Stillwater Mountain ranges, which also drain into the Carson Sink. Although there are no wells within the existing B-20, there are 12 wells within the proposed B-20 expansion area. These wells are largely used for industrial and mining purposes (e.g., geothermal test wells) and are discussed in Section 3.9 (Water Resources).

B-20 is described as being “very desolate, almost devoid of any vegetation, with only an island of vegetation on a rocky outcrop towards the center of the range,” which is referred to as “Lone Rock” (Tierra Data Inc., 2008). Land northwest of B-20 is sparsely vegetated by cool semi-desert scrub and grassland formation, which consist largely of Bailey’s greasewood shrubland (Supporting Study – Plant Community Surveys and Mapping Report, available at <https://frtcmmodernization.com>).

3.4.2.4 Dixie Valley Training Area

The existing DVTA is east of NAS Fallon and north of U.S. Route 50. The proposed DVTA expansion would expand this range west, north, and east of existing DVTA and south of U.S. Route 50 on either side of B-17, depending on the alternative. The proposed expansion area is composed of BLM-administered land with some private parcels. Figure 3.4-7 and Figure 3.4-8 show BLM allotments in the affected environment for DVTA and range improvements that have been identified within the affected environment for DVTA. The range improvements identified may not be a comprehensive list and have not been field verified.

The DVTA currently overlaps portions of the Cow Canyon, Dixie Valley, Frenchman Flat, and Mountain Well-LaPlata allotments. In addition to including larger portions of these allotments, depending on the alternative, the proposed DVTA expansion would also include the Bell Flat, Bucky O’Neill, La Beau Flat, Phillips Well, Salt Wells, and White Cloud allotments.

Grazing occurs within the DVTA in accordance with the BLM Resource Management Plan (Bureau of Land Management, 2013) and the Navy’s Integrated Natural Resources Management Plan (U.S. Department of the Navy, 2014b). NAS Fallon has identified 1,280 acres within the existing DVTA as suitable for agricultural outlease, with 742 acres of irrigable lands, and the remainder available for livestock grazing based on forage availability. This area has not been under lease since 2011.

The BLM manages cattle on the DVTA in a manner consistent with grazing practices on adjacent public lands, per amended BLM allotment management plans. The BLM consults with the Navy before constructing or removing rangeland improvements per these allotment management plans. The Navy maintains fences and gates to prohibit grazing on areas of Horse Creek and specific pond areas in Dixie Valley to protect sensitive species habitats. (U.S. Department of the Navy, 2014b). The Navy has a 2007 Memorandum of Understanding (MOU) with the BLM that describes the management responsibilities of each agency within the Dixie Valley. In addition, the Navy completed a Grazing, Vegetation, and Water Resource Management Plan for the Dixie Valley Settlement Area in 2002.

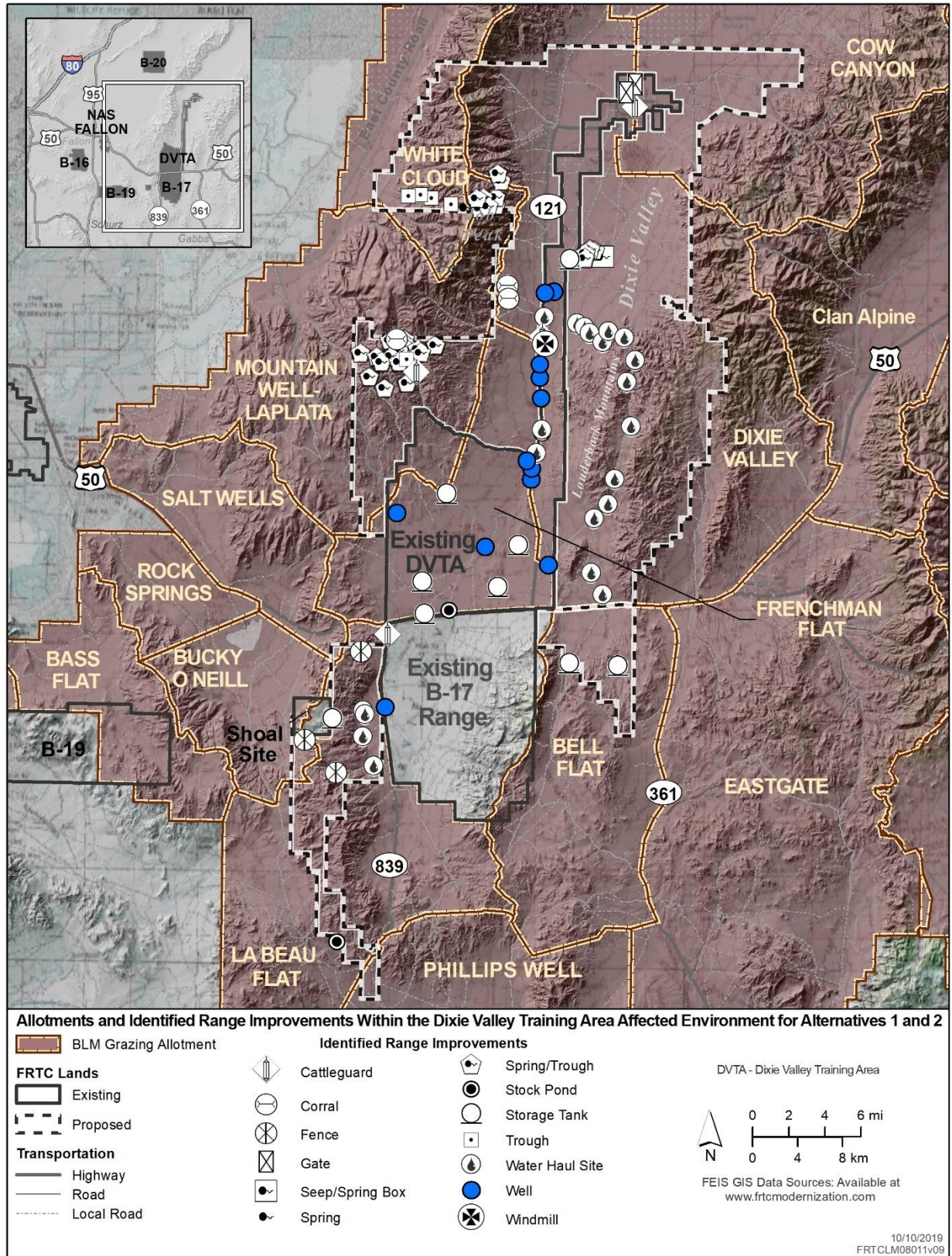


Figure 3.4-7: Allotments and Identified Range Improvements Within the Dixie Valley Training Area Affected Environment for Alternatives 1 and 2

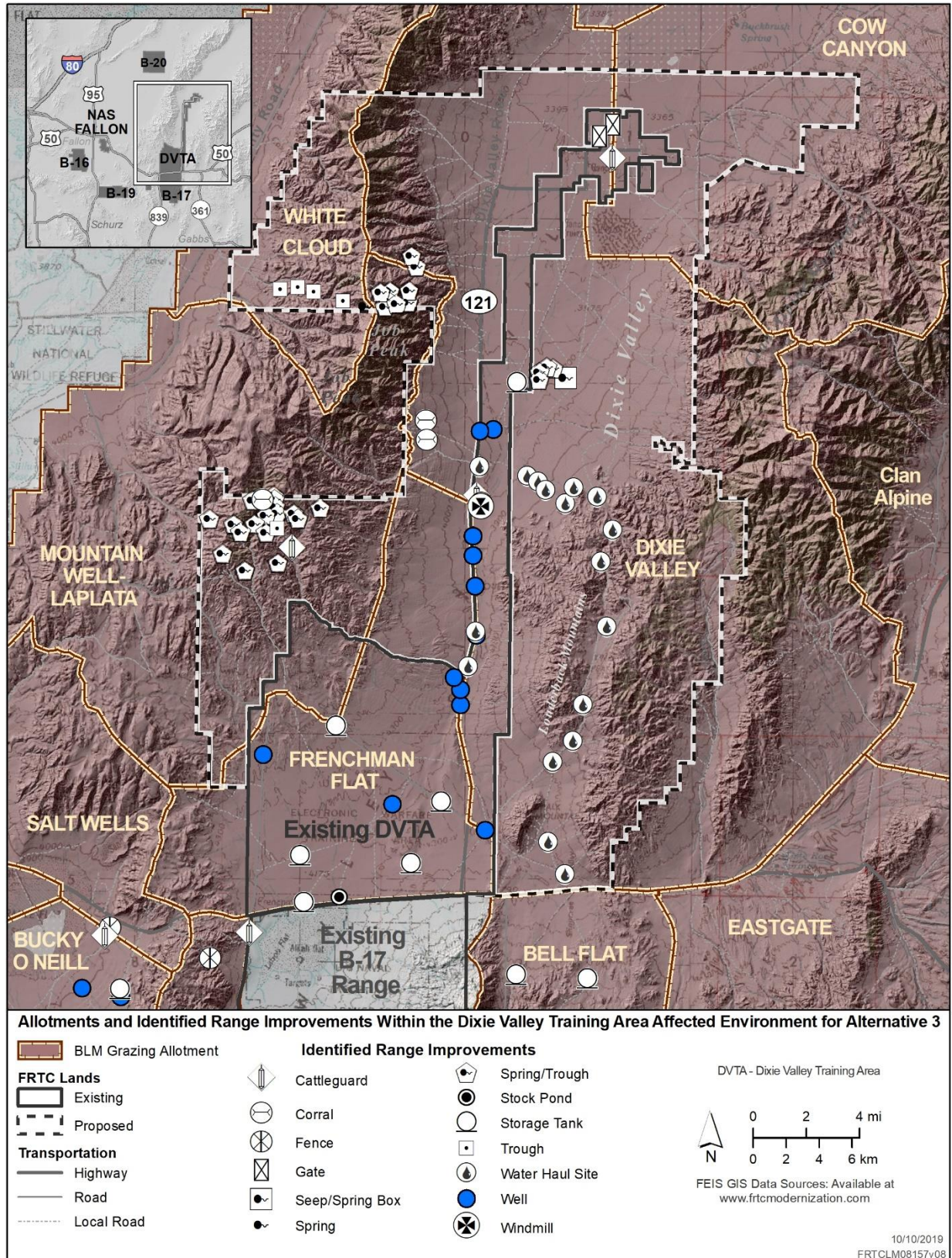


Figure 3.4-8: Allotments and Identified Range Improvements Within the Dixie Valley Training Area Affected Environment for Alternative 3

The 2007 MOU between the Navy and BLM provides the following management responsibilities of the BLM for livestock grazing on the Navy withdrawn lands:

- Notify the Navy when grazing is to occur in the Navy's designated retention areas in Dixie Valley.
- Continue allotment management programs on three grazing allotments in Dixie Valley and adjust AUMs as necessary to protect vegetation conditions.
- Continue to manage grazing in accordance with its Grazing Allotment Management Plans and in a manner that is compatible with current and future military training requirements on Navy-acquired and withdrawn lands.

The 2007 MOU also provides the following shared management responsibilities of the BLM and the Navy for livestock grazing on the Navy withdrawn lands:

- Consult with the Navy before constructing or removing rangeland improvements per amended allotment management plans.
- Manage vegetation and grazing in Dixie Valley per the 2002 Grazing, Vegetation, and Water Resource Management Plan for the Dixie Valley Settlement Area, Churchill County, Nevada. This plan shows the locations of water sources that would be maintained for livestock and the management of vegetation to be protected for wildlife habitat and Navy training purposes.
- Manage the 10 identified ponds in Dixie Valley with the goal of maintaining the existing ecological values. These areas are fenced to exclude livestock, but they may be opened for grazing for short periods if determined to benefit management.
- Continue to prohibit domestic sheep grazing on Navy lands within nine miles of desert bighorn sheep habitat. These areas would likely include B-17, Dixie Valley, and Horse Creek.
- Dempsey, Turley, and Casey Ponds are prohibited from livestock grazing and are fenced to exclude livestock from accessing the waters.

The existing DVTA is within the Dixie Valley, which is a relatively flat valley between the Stillwater and Clan Alpine Mountain Ranges. Soils in the area are generally gravelly and sandy. Both the Stillwater and the Clan Alpine Mountain Ranges include very steep and rugged mountainous terrain.

There are no perennial waters within the affected environment for the DVTA expansion area. However, there are numerous ponds within the Dixie Valley settlement area and the Navy has identified 84 wells in this affected environment using the Nevada Division of Water Resources online database, seven of which are used for stockwater and are discussed in Section 3.9 (Water Resources).

The majority of the DVTA has relatively low forage production; however, the northeastern portion of the Dixie Valley Allotment and the southern portion of the Cow Canyon Allotment have higher forage production potential (Natural Resources Conservation Service, 2017). Characteristic of the region, the DVTA includes vegetation dominated by Bailey's greasewood community. The area also includes vegetative communities dominated by annual herbaceous species. These communities include Russian thistle (*Salsola tragus*), cheatgrass (*Bromus tectorum*), and mustard (Brassicaceae) (Tierra Data Inc., 2008).

3.4.2.5 Special Use Airspace

Livestock grazing occurs on public and private lands underlying FRTC special use airspace (SUA). FRTC SUA overlies approximately 10.4 million acres of land, including large portions of Churchill, Lander, and Eureka Counties as well as portions of Pershing, Nye, Mineral, Lyon, and Washoe Counties. FRTC airspace also overlaps portions of the following Indian reservations: Walker River Paiute Indian

Reservation, Fallon Paiute-Shoshone Reservation, Pyramid Lake Reservation, Duckwater Reservation, and Yomba Indian Reservation. Approximately 94 percent of the lands beneath the FRTC SUA are federally managed public lands, including BLM-administered land (Carson City, Winnemucca, Elko, and Battle Mountain Districts), USFWS refuges (e.g., Stillwater Wildlife Refuge Complex), and U.S. National Forests (e.g., the Humboldt-Toiyabe National Forest).

3.4.3 Environmental Consequences

This section evaluates each alternatives' potential effect on livestock grazing. Closing public land that is partially or completely used for livestock grazing has the potential to directly affect opportunities for grazing. Livestock grazing can also be affected when changes in grazing management practices are needed to support objectives for other resources. For example, closing livestock grazing areas to protect sensitive species, cultural resources, or paleontological resources—as well as during vegetation treatments, fire, drought, or watershed or riparian restoration efforts—would also affect grazing. A summary of the potential impacts with implementation of the No Action Alternative or any of the three action alternatives (Alternatives 1, 2, and 3) is provided at the end of this section (see Section 3.4.3.6, Summary of Effects and Conclusions).

Potential forage production as well as the topography, distance to water, and type or class of livestock are considered in determining whether livestock grazing would be significantly affected. For this analysis, an example indicator of a significant impact would be a long-term loss or closure of all or a substantial portion of a livestock grazing area(s) with high forage potential during critical grazing seasons (e.g., grazing) or the loss of a substantial amount of rangeland improvements. The Navy's analysis also looks at whether potential noise or safety zones would be incompatible with livestock grazing.

Alternatives may affect grazing management due to the loss of ingress or egress to allotments and watering sites or the loss of historic trailing routes. The BLM is required to notify permittees two years prior to any land withdrawal that would preclude livestock grazing, except in cases of emergency (43 CFR 4110.4-2) (Bureau of Land Management, 2013). In addition, holders of federal permits for grazing on lands under the control of the United States would be eligible for potential payments in accordance with 43 U.S.C. section 315q of the Taylor Grazing Act of 1934 (as amended) for losses suffered by such persons as a result of the withdrawal or other use of such lands for war or national defense purposes.

Any changes to livestock grazing management as well as any revisions to the boundary of any grazing allotment could potentially affect the local economy. As stated earlier in this section, livestock grazing has had an important and historical role in the state of Nevada and continues to represent local customs and cultural traditions that influence day-to-day life for many of the state's individuals and families, especially in its rural areas. As discussed in Section 3.13 (Socioeconomics), the most direct economic effects of such changes would be on livestock grazing permittees. In addition, Section 3.10 (Biological Resources) discusses the elimination of livestock grazing in the areas requested for withdrawal or proposed for acquisition and potential impacts on biological communities. Additionally, Section 3.10 (Biological Resources) addresses how the removal of livestock grazing could result in increased fuel loads, which would increase fire risk and would prevent the use of livestock grazing to minimize the spread of annual invasive species.

3.4.3.1 No Action Alternative

Under the No Action Alternative, the Proposed Action would not occur (withdrawal and acquisition), and the current withdrawal would expire on November 5, 2021. In comparison to the environmental baseline, livestock grazing would be anticipated to continue where permitted. Areas previously used by the Navy that could be rendered safe could potentially be used for livestock grazing following military range closure activities, either by expanding existing livestock grazing areas or by creating new livestock grazing areas. As such, the No Action Alternative could potentially have a limited beneficial impact on livestock grazing by opening appropriate areas for additional grazing permits. However, the DVTA is currently open for grazing, and the existing bombing ranges are primarily alkaline flats with low forage production. Therefore, any beneficial impact would be minor, and implementation of the No Action Alternative would not have a significant impact on livestock grazing.

3.4.3.2 Alternative 1: Modernization of the Fallon Range Training Complex

Under Alternative 1, the Navy proposes renewal by Congress of the current public land withdrawal at the FRTC. Additional public lands would be requested for withdrawal, and public lands would be proposed for acquisition (see Section 2.3.2, Alternative 1 – Modernization of the Fallon Range Training Complex). The Navy proposes to construct range infrastructure to support modernization, including new target areas. Additionally, the Navy proposes to expand and reconfigure existing SUA to accommodate the expanded ranges. Alternative 1 would continue current livestock grazing activities within the DVTA, but would discontinue livestock grazing within the proposed B-16, B-17, and B-20 boundaries.

Impacts on grazing permittees would occur because Alternative 1 would close grazing on currently-active grazing lands. These impacts would increase when land that is proposed to be closed represents the allotment's primary use area. Ultimately, these types of changes could cause a financial hardship to a permittee, who may have to seek grazing lands elsewhere to replace the area lost, and may necessitate purchase or rental of other lands and/or grazing permits, or construction of new rangeland improvements. It is possible that replacement lands would not be available or might become prohibitively expensive. If such costs would be prohibitive to continuing grazing, permittees could potentially go out of business. Section 3.13 (Socioeconomics) further addresses these impacts.

Livestock grazing would no longer be available to be used as a habitat management tool within areas proposed for expansion of the Bravo ranges. This may result in an increased fuel load and increased potential for large or catastrophic wildfires (Davies et al., 2015). This may also result in an increased use of herbicides and other methods (e.g., mowing and weeding) to manage vegetation within the Bravo ranges around sensitive habitat and target areas. These activities would be conducted in accordance with the Navy's Integrated Natural Resources Management Plan and applicable federal, state, and local regulations.

Table 3.4-2 identifies the allotments within the proposed FRTC boundaries and the number of acres that would be closed from livestock grazing under Alternative 1. A loss of AUMs could occur where large areas of land would be withdrawn, and livestock grazing would be precluded. Forage and rangeland improvement projects could be permanently lost as a result of the action. The process for determining payment amounts from losses resulting from permit cancellation can be found in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation). The Navy would acquire valid and existing surface water rights within B-16, B-17, and B-20 (Section 3.9, Water Resources). The Navy would evaluate whether individuals may transit these ranges to access rangeland improvements off-range on a case-by-case basis based on compatibility with

military training activities and range safety within the withdrawn lands, but outside of the weapons danger zone (WDZ).

Table 3.4-2: Alternative 1: Allotments within the Proposed FRTC Boundaries and Acres Closed

Allotment Name	Existing Total Acres	Permitted Total AUMs	Alternative 1		
			Proposed FRTC Land	Acres Closed	Percent Closed
Bell Flat	91,997	3,688	B-17, DVTA	77,743	85%
Bucky O'Neill	40,946	1,500	DVTA	0	0%
Copper Kettle	108,220	2,333	B-20	54,024	50%
Cow Canyon	149,168	2,382	DVTA	0	0%
Dixie Valley	275,782	6,341	DVTA	0	0%
Eastgate	311,221	9,770	B-17	657	<1%
Frenchman Flat	70,323	2,001	DVTA	0	0%
Horse Mountain	63,160	3,000	B-16	2,411	4%
Humboldt Sink	190,728	1,582	B-20	1,438	1%
La Beau Flat	122,640	3,035	B-17, DVTA	68,127	56%
Lahontan	77,882	1,155	B-16	30,681	39%
Mountain Well- La Plata	139,610	8,004	DVTA	0	0%
Phillips Well	80,618	1,450	B-17, DVTA	58,438	72%
Pilot Table Mountain	538,322	7,900	B-17	18,010	3%
Rochester	255,390	3,963	B-20	43,374	17%
Salt Wells	51,421	1,624	DVTA	0	0%
Sheckler Pasture	22,210	145	B-16	4,187	19%
White Cloud	79,647	1,884	B-20, DVTA	26,338	33%
TOTAL¹	2,669,285	61,757	FRTC	385,428	14%

¹Total acres do not add up because of the overlap of Sheckler Pasture and the Lahontan Allotment.

Notes: (1) Acres were calculated using ArcGIS data provided by BLM (UTMz11 NAD83 projection) and may not be consistent with acres reported in the BLM's public Rangeland Administration System. (2) FRTC = Fallon Range Training Complex, DVTA = Dixie Valley Training Area

3.4.3.2.1 Bravo-16

Land Withdrawal and Acquisition

Alternative 1 would expand B-16 to approximately 59,560 acres, which would be an increase of approximately 32,201 acres from existing conditions (Table 2-1). The proposed expansion of B-16 would withdraw public land (i.e., BLM and Bureau of Reclamation land) and would not require the acquisition of any non-federal land. Expanding B-16 under this alternative would result in a loss of between 523 and 756 permitted AUMs from two BLM allotments and a loss of between 0 and 27 AUMs from one Bureau of Reclamation pasture (as shown in Supporting Study – Livestock Grazing Allotment Study, available from <https://frtcmodernization.com>). A small area within the southwest portion of the proposed B-16 expansion area falls within the Lahontan Allotment and is accessible by Sand Canyon Road from the east as well as several unnamed roads from the west. This area is estimated to produce more forage than the surrounding area (Natural Resources Conservation Service, 2017). It would be closed from grazing under Alternative 1.

Training Activities

Training activities would occur within B-16 and expand into areas where they did not previously occur, but neither the public nor livestock would be able to access B-16. The B-16 surface danger zone would be contained within the fenced boundary of B-16, and livestock grazing would not be allowed within this zone. Training noise could elicit a behavioral response from livestock outside B-16. The type of behavioral response depends on many variables, but it is typically a temporary startle, freezing, or fleeing response. Noise from training activities would be consistent with current noise levels but would be dispersed over a larger area. Modeled training noise associated with Navy activities would not be experienced beyond the range at levels that would significantly affect livestock grazing.

Public Accessibility

Under Alternative 1, the public would not be able to access B-16 for any purpose other than for ceremonial or cultural site visits and land management activities, which are currently occurring within the requested withdrawal area. Areas that were previously used for livestock grazing would no longer be used for these purposes. B-16 would be fenced and closed for public safety. The public is not allowed within a surface danger zone when a range is actively being used. B-16 would also include signage warning the public to not enter this area. Expanding and fencing off B-16 would close approximately 33,092 acres of BLM allotments and 4,187 acres of Bureau of Reclamation pasture land. Implementation of this alternative would require the closure of approximately 39 percent of the Lahontan Allotment, 4 percent of the Horse Mountain Allotment, and 19 percent of the Sheckler Pasture. These portions of the allotment/pastures would be fenced, preventing permittee access. A prior environmental assessment analyzed closing 983 acres of the Sheckler Pasture within this range; since the publication of that environmental assessment, that area has been fenced as part of B-16 (U.S. Department of the Navy, 2014c).

Construction

Construction would occur within the proposed B-16 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.2.2 Bravo-17

Land Withdrawal and Acquisition

Alternative 1 would expand B-17 to approximately 232,799 acres, which would be an increase of approximately 178,013 acres from existing conditions (Table 2-1). The proposed expansion of B-17 would include withdrawing public land (i.e., BLM-administered land) and acquiring non-federal land. These non-federal parcels are largely undeveloped land, which have historically been used for mining, livestock grazing, and other uses. Expanding B-17 under this alternative would result in a loss of between 5,665 and 6,774 permitted AUMs from five BLM allotments (as discussed in Supporting Study – Livestock Grazing Allotment Study, available from <https://ftrcmodernization.com>).

Training Activities

Training activities would occur within B-17 and expand into areas where they did not previously occur, but neither the public nor livestock would be able to access B-17. The B-17 WDZ would be contained within the fenced boundary of B-17, and livestock grazing would not be allowed within this zone. As described in Section 3.4.3.2.1 (Bravo-16), training noise could elicit a behavioral response from livestock

outside B-17. Noise from training activities would be consistent with current noise levels but would be dispersed over a larger area. Modeled training noise associated with Navy activities would not be experienced beyond the range at levels that would significantly affect livestock grazing.

Public Accessibility

Under Alternative 1, the public would not be able to access the proposed B-17 for any purpose other than for ceremonial or cultural site visits and land management activities, which are currently occurring within the requested withdrawal area. Areas previously used for livestock grazing would no longer be used for these purposes. B-17 would be fenced and closed for public safety. No one is allowed within a WDZ when a range is actively being used. B-17 would also include signage warning the public to not enter this area.

Expanding and fencing off B-17 would close approximately 222,975 acres of BLM allotments. Alternative 1 would close 85 percent of the Bell Flat, less than 1 percent of the Eastgate, 56 percent of La Beau Flat, 72 percent of the Phillips Well, and 3 percent of the Pilot Table Mountain Allotments. In addition, fencing off B-17 would fragment the eastern and western portions of the Phillips Well Allotment, creating two non-contiguous areas, which would prevent livestock from accessing areas with higher forage production within this allotment. These actions would likely lead to an overall increase in the number of AUMs that would be lost. In addition, this alternative would close off an area of Gabbs Valley where water ponds and rangeland improvements have been installed within the proposed expansion area.

Construction

Construction would occur within the proposed B-17 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

Road and Infrastructure Improvements to Support Alternative 1

State Route 839

This alternative includes the potential relocation of State Route 839 outside the proposed expansion of B-17 WDZ, which would affect access to allotments west of State Route 839. Relocating State Route 839 could fragment existing grazing land depending on any route ultimately proposed for its relocation. This could also result in further reductions of AUMs and/or the loss or need to replace or relocate rangeland improvements. Using funding provided by the Navy, the Federal Highway Administration, in cooperation with the Nevada Department of Transportation (NDOT), would be responsible for planning, design, permitting, and constructing any realignment of State Route 839. 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 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.

Paiute Pipeline

Likewise, the potential relocation of the Paiute Pipeline could temporarily (from construction) or permanently prevent access to grazing lands outside the proposed B-17 boundary. The Navy would

purchase the impacted portion of the Paiute Pipeline and then would pay for relocation of the existing Paiute Pipeline south of the proposed B-17 range. 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 Right of Way 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.

3.4.3.2.3 Bravo-20

Land Withdrawal and Acquisition

Alternative 1 would expand B-20 to approximately 221,334 acres, which would be an increase of approximately 180,329 acres from existing conditions (Table 2-1). The proposed expansion of B-20 would include withdrawing public land (i.e., BLM, Bureau of Reclamation, and USFWS land) and acquiring non-federal land. These non-federal parcels are largely undeveloped land with some grazing land in the northern and eastern portions of the range. Expanding B-20 under this alternative would result in a loss of between 1,708 and 2,902 permitted AUMs from five BLM allotments (as discussed in Supporting Study – Livestock Grazing Allotment Study, available from <https://frtcmmodernization.com>).

Training Activities

Training activities would occur within B-20 and expand into areas where they did not previously occur, but neither the public nor livestock would be able to access B-20. The B-20 WDZ would be contained within the fenced boundary of B-20, and livestock grazing would not be allowed within this zone. As described in Section 3.4.3.2.1 (Bravo-16), training noise could elicit a behavioral response from livestock outside B-20. Noise from training activities would be consistent with current noise levels but would be dispersed over a larger area. Modeled training noise associated with Navy activities would not be experienced beyond the range at levels that would significantly affect livestock grazing.

Public Accessibility

Under Alternative 1, the public would not be able to access B-20 for any purpose other than for ceremonial or cultural site visits and land management activities, which are currently occurring within the requested withdrawal area. Areas previously used for livestock grazing would no longer be used for these purposes. B-20 would be fenced and closed for public safety. No one is allowed within a WDZ when a range is actively being used. B-20 would also include signage warning the public to not enter this area.

Expanding and fencing off B-20 would close approximately 125,174 acres of BLM allotments. Implementation of this alternative would result in closing approximately 50 percent of the Copper Kettle Allotment, 1 percent of the Humboldt Sink Allotment, 17 percent of the Rochester Allotment, and 33 percent of the White Cloud Allotment.

East County Road and lands east of the road would remain open under this alternative. As such, this alternative would not affect the ability for permittees to access grazing lands east of the proposed boundary of B-20. Alternative 1 would close the Navy B-20 Access Road (locally known as “Pole Line

Road”), which could affect permittees’ ability to access grazing areas north and west of B-20. The Department of the Navy is currently the only authorized user of this road.

Construction

Construction would occur within the proposed B-20 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.2.4 Dixie Valley Training Area

Land Withdrawal and Acquisition

Alternative 1 would expand the DVTa to approximately 370,903 acres, which would be an increase of approximately 293,343 acres from existing conditions (see Table 2-1). Expanding the DVTa would entail the withdrawal of public land (i.e., BLM-administered land) and would include the acquisition of non-federal land. These non-federal parcels are largely undeveloped land, which have historically been used for mining, livestock grazing, and other uses. Grazing on federal allotments would continue within the DVTa under this alternative. Therefore, expanding the DVTa would not result in a loss of permitted AUMs under this alternative (as discussed in Section 3.13, Socioeconomics).

Training Activities

Training activities would expand within the proposed DVTa boundary into areas where they have not previously occurred. The public and livestock may see and hear aircraft and support vehicles during training activities within this area. As described in Section 3.4.3.2.1 (Bravo-16), training noise could elicit a behavioral response from livestock. The military has no authority to ask civilians to exit or leave open land areas within the DVTa. If the public enters a training area within the DVTa while a training event is underway, the training would temporarily cease or move elsewhere while the public uses the area.

Public Accessibility

The public would be able to continue to access the DVTa for livestock grazing under this alternative. The BLM would continue managing allotments in the DVTa in accordance with the Federal Land Policy Management Act, applicable Resource Management Plans, and as outlined in the MOU between the Navy and BLM, which would be updated accordingly (see Section 3.4.2.4, Dixie Valley Training Area).

Construction

Construction on three 5-acre sites would occur within the proposed DVTa boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.2.5 Fallon Range Training Complex Special Use Airspace

Livestock grazing has been conducted beneath FRTC SUA for over 70 years. Although some studies find the data to be inconclusive, most scientific literature indicates that livestock exhibit some form of behavioral response to aircraft noise (Wyle, 2014). The type of behavioral response depends on many variables (e.g., aircraft’s size, speed, altitude, distance, color, and type of engine), but it is typically a startle, freezing, or fleeing response. Some studies have reported other adverse effects to livestock, including reduced milk yields, increased heart rate, and increased respiration (Manci et al., 1988; Wyle, 2014); however, these physiological effects have proven difficult to assess, and any such effect would likely be very minor. In general, studies suggest that aircraft noise and sonic booms would not

substantially affect livestock production or reproduction (Pepper et al., 2003), and some studies have demonstrated that domestic animals may adjust to aircraft noise over time (Manci et al., 1988).

Following the EIS process, the Navy would update relevant documents to formalize any recommendation for new safety and noise zones and confirm existing safety and noise zones. The Navy would continue to work with the local counties and municipalities as well as federal property land managers to plan for compatible land use development, which would include the BLM, USFWS, U.S. Forest Service, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties.

3.4.3.2.6 Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation

The FRTC Modernization project would remove acreage available for grazing livestock from 12 federal grazing allotments administered by BLM or Bureau of Reclamation. These allotments would be affected by the expansion of three ordnance ranges (B-16, B-17, and B-20), which would require the closure of these areas to grazing because of range safety requirements. Table 3.4-3 depicts the extent that each grazing allotment would be affected.

Table 3.4-3: Impacts on Each Grazing Allotment Affected by the FRTC Modernization Under Alternative 1

Allotment Name	District	Total Acreage	Acreage Impacted	Percent Impacted	Permit Expiration
Bell Flat	BLM – Carson City	91,997	77,743	85%	3/15/27
Phillips Well	BLM – Carson City	80,618	58,438	72%	10/31/19
La Beau Flat	BLM – Carson City	122,640	68,127	56%	9/1/25
Copper Kettle	BLM – Carson City	108,220	54,024	50%	3/13/26
Lahontan	BLM – Carson City	77,882	30,681	39%	2/28/26
White Cloud	BLM – Carson City	79,647	26,338	33%	2/28/29
Sheckler Pasture	BOR – Lahontan Basin	22,210	4,187	19%	11/15/19
Rochester	BLM – Winnemucca	255,390	43,374	17%	2/27/28
Horse Mountain	BLM – Carson City	63,160	2,411	4%	9/30/29
Pilot-Table Mountain	BLM – Carson City	538,322	18,010	3%	4/14/23
Eastgate	BLM – Carson City	311,221	657	<1%	9/27/25
Humboldt Sink	BLM – Winnemucca	190,728	1,438	1%	2/28/28

Notes: BLM = Bureau of Land Management, BOR = Bureau of Reclamation

The Taylor Grazing Act of 1934 (43 U.S.C. sections 315–316o) provides the Navy with authority to make payments for certain grazing-related losses. Specifically, section 315q states:

“Whenever use for war or national defense purposes of the public domain or other property owned by or under the control of the United States prevents its use for grazing, persons holding grazing permits or licenses and persons whose grazing permits or licenses have been or will be cancelled because of such use shall be paid out of the funds appropriated or allocated for such project such amounts as the head of the department or agency so using the lands shall determine to be fair and reasonable for the losses suffered by such persons as a result of the use of such lands for war or national defense purposes. Such payments shall be deemed payment in full for

such losses. Nothing contained in this section shall be construed to create any liability not now existing against the United States.”

To paraphrase the authority, 43 U.S.C. section 315q directs the Navy to make payments out of project funds for losses arising from permittees being denied use of their federal grazing privileges during the current permit period as a result of the grazing lands in question being used for national defense purposes.

Additionally, the Navy would be required, under the USDI-BLM Grazing Regulations (43 CFR Part 4100) Subpart 4120.3-6 – Removal and Compensation for Loss of Range Improvements, to compensate for a loss of authorized range improvements. The CFR regulation states:

“(c) Whenever a grazing permit or lease is cancelled in order to devote the public lands covered by the permit or lease to another public purpose, including disposal, the permittee or lessee shall receive from the United States reasonable compensation for the adjusted value of their interest in authorized permanent improvements placed or constructed by the permittee or lessee on the public lands covered by the cancelled permit or lease. The adjusted value is to be determined by the authorized officer. Compensation shall not exceed the fair market value of the terminated portion of the permittee’s or lessee’s interest therein. Where a range improvement is authorized by a range improvement permit, the livestock operator may elect to salvage materials and perform rehabilitation measures rather than be compensated for the adjusted value.

“(d) Permittees or lessees shall be allowed 180 days from the date of cancellation of a range improvement permit or cooperative range improvement agreement to salvage material owned by them and perform rehabilitation measures necessitated by the removal.”

The Navy would use these authorities to determine payment amounts to individuals who may suffer losses resulting from the modification or cancellation of grazing permits or other disruption of their livestock grazing operations as a result of implementation of any proposed FRTC modernization action.

The following process would be used for determining payment amounts:

Payment for Losses. The Navy will 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 will determine the costs necessary to replace the area/capacity removed from a grazing permit. These costs may include, but are not limited to, preparing new allotment applications, complying with BLM environmental requirements, and water rights studies; procurement of private market replacement forage; shipment or transportation of forage, cattle, and/or ranch personnel and their horses and equipment; one-time relocation expenses associated with any full or partial transfer 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 that 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 will 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 will 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

will be used to determine a payment amount to compensate for losses resulting from permit modification or cancellation, including reasonably anticipated lost profits for what would otherwise have been the duration of the permit. If a permit holder does not wish to share this financial information, or if the information shared is incomplete, the Navy will make an estimate of the value of the losses based on existing information from other sources.

It is possible that a payment amount will 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 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 will first be determined, and then the remaining payment amount will be determined in accordance with the paragraph above discussing permit holders who may elect not to seek replacement forage capacity.

Payment for Allotment Improvements. Improvement, such as corrals, fencing, wells, and other appurtenances that cannot be relocated are considered real property, similar to a building. The Navy will appraise the value of all real property owned by a permit holder and will offer fair market value for the purchase of any such real property. Equipment, such as relocatable water tanks, is not considered real property, and permit holders will be afforded an opportunity to remove their equipment prior to permits being modified or cancelled.

The Navy acknowledges that the information it has gathered to this point concerning potentially compensable range improvements may be incomplete. Individuals who would be affected by implementation of the Proposed Action would be afforded an opportunity to provide additional information concerning any such range improvements subsequent to issuance of the Navy's Record of Decision, during any discussions with the Navy for the purpose of determining potential payments under 43 U.S.C. Section 315q for grazing-related losses.

Timing of Permit Modification or Cancellation. The Navy anticipates issuing its 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 or cancel 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 or cancellation 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 cancellation. 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.

3.4.3.2.7 Summary of Effects and Conclusions

Under Alternative 1, the Navy would close public access to approximately 381,241 acres of BLM allotments and 4,187 acres of Bureau of Reclamation pastureland in western and central Nevada. The Navy estimates that Alternative 1 would result in a loss of between 7,896 and 10,432 AUMs from existing grazing permits. This results in an average loss of 14 percent of available grazing areas and

approximately 13–17 percent loss of permitted AUMs from the affected allotments. These losses represent a loss of up to approximately 7 percent of AUMs within the BLM Carson City District, less than 1 percent of AUMs within the Winnemucca District, and less than 1 percent of all AUMs in Nevada. Section 3.13 (Socioeconomics) provides detailed discussion of these impacts. Because the proposed expansion area of Alternative 1 includes the loss of areas with higher forage potential, the loss of critical winter grazing areas, and the loss of rangeland improvements, implementation of Alternative 1 would significantly impact livestock grazing.

3.4.3.3 Alternative 2: Modernization of the Fallon Range Training Complex and Managed Access

Under Alternative 2, the Navy would renew its current public land withdrawal and would also withdraw and acquire additional land to be reserved for military use similar to Alternative 1. Alternative 2 would close public access to B-16, B-17, B-19, and B-20 but would allow certain uses when the ranges are not in operation with prior coordination. Meanwhile, public access within the DVTA would be similar to existing baseline conditions (see Section 2.3.5, Alternative 2 – Modernization of Fallon Range Training Complex with Managed Access).

Table 3.4-4 identifies the allotments within the proposed FRTC boundaries and the number of acres that would be closed from livestock grazing under Alternative 2. It is anticipated that this would result in the same percent loss of AUMs as Alternative 1 (see Section 3.4.3.2, Alternative 1: Modernization of the Fallon Range Training Complex). A loss of AUMs could occur where large areas of land would be withdrawn, and livestock grazing would be precluded. Forage and rangeland improvement projects could be permanently lost as a result of the action, which could further affect AUM estimates. The Navy would acquire valid and existing surface water rights within B-16, B-17, and B-20 (see Section 3.9, Water Resources). The Navy would evaluate whether individuals may transit these ranges to access rangeland improvements off-range on a case-by-case basis based on compatibility with military training activities and range safety within the withdrawn lands but outside of the WDZ.

The BLM would complete site-specific environmental analysis for each allotment prior to implementing any of the alternatives assessed in this EIS.

3.4.3.3.1 Bravo-16

Land Withdrawal and Acquisition

Alternative 2 would have the same land configuration as Alternative 1. The proposed expansion areas for B-16 would be the same as Alternative 1, with one exception. Simpson Road at B-16 and a small portion of land south of Simpson Road would be open to public use under Alternative 2. In addition, as with Alternative 1, the FRTC Bravo ranges would be closed from livestock grazing.

Training Activities

Under Alternative 2, the types of training activities conducted at B-16 would be the same as under Alternative 1, and neither the public nor livestock would be able to access B-16 during training events.

Public Accessibility

Under Alternative 2, B-16 would be closed to public access as described under Alternative 1, with the exception of special events (racing events). A small portion of B-16 south of Simpson Road would also remain open to the public under this alternative. Grazing would not be allowed on B-16 under Alternative 2.

Construction

The proposed construction areas for B-16 would be the same as under Alternative 1. Construction would occur within the proposed B-16 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

Table 3.4-4: Alternative 2: Allotments within the Proposed FRTC Boundaries and Acres Closed

Allotment Name	Existing Total Acres	Permitted Total AUMs	Alternative 2		
			Proposed FRTC Land	Acres Closed	Percent Closed
Bell Flat	91,997	3,688	B-17, DVTA	77,743	85%
Bucky O'Neill	40,946	1,500	DVTA	0	0%
Copper Kettle	108,220	2,333	B-20	54,024	50%
Cow Canyon	149,168	2,382	DVTA	0	0%
Dixie Valley	275,782	6,341	DVTA	0	0%
Eastgate	311,221	9,770	B-17	657	<1%
Frenchman Flat	70,323	2,001	DVTA	0	0%
Horse Mountain	63,160	3,000	B-16	2,411	4%
Humboldt Sink	190,728	1,582	B-20	1,438	1%
La Beau Flat	122,640	3,035	B-17, DVTA	68,127	56%
Lahontan	77,882	1,155	B-16	30,681	39%
Mountain Well-La Plata	139,610	8,004	DVTA	0	0%
Phillips Well	80,618	1,450	B-17, DVTA	58,438	72%
Pilot Table Mountain	538,322	7,900	B-17	18010	3%
Rochester	255,390	3,963	B-20	43,374	17%
Salt Wells	51,421	1,624	DVTA	0	0%
Sheckler Pasture	22,210	145	B-16	4,187	19%
White Cloud	79,647	1,884	B-20, DVTA	26,338	33%
TOTAL¹	2,669,285	61,757	FRTC	385,428	14%

¹Total acres do not add up because of the overlap of Sheckler Pasture and the Lahontan Allotment.

Notes: (1) Acres were calculated using ArcGIS data provided by BLM (UTMz11 NAD83 projection) and may not be consistent with acres reported in the BLM's public Rangeland Administration System. (2) AUM = Animal Unit Months, FRTC = Fallon Range Training Complex, DVTA = Dixie Valley Training Area

3.4.3.3.2 Bravo-17

Land Withdrawal and Acquisition

Under Alternative 2, B-17 would have the same land configuration as under Alternative 1. The proposed expansion areas for B-17 would be the same as Alternative 1. In addition, as with Alternative 1, the FRTC Bravo ranges would be closed from livestock grazing.

Training Activities

Under Alternative 2, the types of training activities conducted at B-17 would be the same as under Alternative 1, and neither the public nor livestock would be able to access B-17 during training events.

Public Accessibility

Under Alternative 2, B-17 would be closed to public access as described under Alternative 1, with the exception of special events (racing events), and hunting. Grazing would not be allowed on B-17 under Alternative 2.

Construction

The proposed construction areas for B-17 would be the same as Alternative 1. Construction would occur within the proposed B-17 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

Road and Infrastructure Improvements to Support Alternative 2

The proposed construction areas for B-17 would be the same as under Alternative 1. Follow-on, site-specific NEPA analysis would be required to analyze the impacts of any potential relocations of State Route 839 and the Paiute Pipeline, which would include analyzing potential impacts on livestock grazing.

3.4.3.3.3 Bravo-20

Land Withdrawal and Acquisition

Under Alternative 2, B-20 would have the same land configuration as under Alternative 1. The proposed expansion areas for B-20 would be the same as Alternative 1. In addition, as with Alternative 1, the FRTC Bravo ranges would be closed from livestock grazing.

Training Activities

Under Alternative 2, the types of training activities conducted at B-20 would be the same as under Alternative 1, and neither the public nor livestock would be able to access B-20 during training events.

Public Accessibility

Under Alternative 2, B-20 would be closed to public access as described under Alternative 1, with the exception of special events (racing events). Impacts on grazing would be the same as described under Alternative 1.

Construction

Under Alternative 2, the proposed construction areas for B-20 would be the same as under Alternative 1. Construction would occur within the proposed B-20 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.3.4 Dixie Valley Training Area

Land Withdrawal and Acquisition

Under Alternative 2, the DVTA would have the same land configuration as under Alternative 1. The proposed expansion areas for the DVTA would also be the same as under Alternative 1. In addition, there would be no change to livestock grazing activities or management within the DVTA under this alternative compared to current conditions.

Training Activities

Under Alternative 2, the types of training activities conducted at the DVTA would be the same as under Alternative 1. Training activities would expand within the proposed DVTA boundary into areas where they have not previously occurred. The military has no authority to ask civilians to exit or leave open land areas within the DVTA. If the public enters a training area within the DVTA while a training event is

underway, the training would temporarily cease or move elsewhere while the public transits the training area.

Public Accessibility

As stated under Alternative 1, the public would be able to continue to access the DVTA for livestock grazing under this alternative. The BLM would continue managing these allotments in accordance with the Federal Land Policy Management Act, applicable Resource Management Plans, and as outlined in the MOU between the Navy and BLM, which would be updated accordingly (see Section 3.4.3.4.4, Dixie Valley Training Area).

Construction

Under Alternative 2, the proposed construction areas for the DVTA would be the same as under Alternative 1. Construction would occur within the proposed DVTA boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.3.5 Fallon Range Training Complex Special Use Airspace

Under Alternative 2, FRTC would have the same airspace configuration as under Alternative 1, and would be expected to generate the same relatively minimal impacts with respect to livestock. Following the EIS process, the Navy would update relevant documents to formalize the recommendation for new safety and noise zones and confirm existing safety and noise zones. The Navy would continue to work with the local counties and municipalities as well as federal property land managers to plan for compatible land use development, which would include the BLM, USFWS, U.S. Forest Service, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties.

3.4.3.3.6 Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation

Under Alternative 2, the FRTC Modernization project would remove the same amount of acreage available for grazing livestock from 12 federal grazing allotments administered by BLM or the Bureau of Reclamation as discussed in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation), under Alternative 1. These allotments would be affected by the expansion of three ordnance ranges (B-16, B-17, and B-20), which would require the closure of these areas to grazing because of range safety requirements. See Table 3.4-3 for a depiction of the extent that each grazing allotment would be affected.

The process for determining payment amounts for losses resulting from permit modification or cancellation would be the same as discussed under Alternative 1 in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation).

3.4.3.3.7 Summary of Effects and Conclusions

Under Alternative 2, the Navy would close public access to approximately 381,241 acres of BLM allotments and 4,187 acres of Bureau of Reclamation pastureland in western and central Nevada. The Navy estimates that Alternative 1 would result in a loss of between 7,896 and 10,432 AUMs from existing grazing permits. This results in an average loss of 14 percent of available grazing areas and approximately 13–17 percent loss of permitted AUMs from the affected allotments. These losses represent a loss of up to approximately 7 percent of AUMs within the BLM Carson City District, less than 1 percent of AUMs within the Winnemucca District, and less than 1 percent of all AUMs in Nevada.

Section 3.13 (Socioeconomics) provides detailed discussion of these impacts. Because the proposed expansion area of Alternative 2 includes the loss of areas with higher forage potential, the loss of critical winter grazing areas, and the loss of rangeland improvements, implementation of Alternative 2 would significantly impact livestock grazing.

3.4.3.4 Alternative 3: Bravo-17 Shift and Managed Access (Preferred Alternative)

Alternative 3 is similar to Alternative 1 in terms of its land requested for withdrawal and proposed for acquisition, except with respect to the orientation, size, and location of B-16, B-20, B-17, and the DVTA; and similar to Alternative 2 in terms of managed access. Alternative 3 would move B-17 farther to the southeast and rotate it slightly counter-clockwise (see Section 2.3.6, Alternative 3 – Bravo-17 Shift and Managed Access [Preferred Alternative]). In addition, unlike Alternatives 1 and 2, Alternative 3 would not withdraw land south of U.S. Route 50 for the DVTA (see Section 2.3.6.4.1, Land Acquisition and Withdrawal). Rather, the Navy proposes that Congress categorizes 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 be used for land-based military training or managed by the Navy. The Navy further reduced the overall size of the ranges requested for withdrawal or proposed for acquisition between the Draft and Final EIS (see Section 2.3.6, Alternative 3—Bravo-17 Shift and Managed Access [Preferred Alternative]), thus reducing impacts on grazing allotments under Alternative 3.

Table 3.4-5 identifies the allotments within the proposed FRTC boundaries, the number of acres that would be closed from livestock grazing under Alternative 3. A loss of AUMs would occur where large areas of land would be withdrawn, and livestock grazing would be precluded. As with Alternative 1 and 2, forage and rangeland improvement projects could be permanently lost as a result of the action.

The process for determining payment amounts from losses resulting from permit modification or cancellation can be found in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation). The Navy would acquire valid and existing surface water rights within B-16, B-17, and B-20 (refer to Section 3.9, Water Resources). The Navy would evaluate whether individuals may transit these ranges to access rangeland improvements off-range on a case-by-case basis, based on compatibility with military training activities and range safety within the withdrawn lands, but outside of the WDZ.

Table 3.4-5: Alternative 3: Allotments Within the Proposed FRTC Boundaries and Acres Closed

Allotment Name	Existing Total Acres	Permitted Total AUMs	Alternative 3		
			Proposed FRTC Land	Acres Closed	Percent Closed
Bell Flat	91,997	3,688	B-17	49,528	54%
Bucky O'Neill	40,946	1,500	DVTA	0	0%
Copper Kettle	108,220	2,333	B-20	43,515	40%
Cow Canyon	149,168	2,382	DVTA	0	0%
Dixie Valley	275,782	6,341	DVTA	0	0%
Eastgate	311,221	9,770	B-17	48,310	16%
Frenchman Flat	70,323	2,001	DVTA	0	0%
Horse Mountain	63,160	3,000	B-16	2,085	3%
Humboldt Sink	190,728	1,582	B-20	1,277	1%
La Beau Flat	122,640	3,035	B-17	22,628	18%
Lahontan	77,882	1,155	B-16	29,847	38%
Mountain Well-LaPlata	139,610	8,004	DVTA	0	0%
Phillips Well	80,618	1,450	B-17	71,298	88%
Pilot Table Mountain	538,322	7,900	B-17	17,823	3%
Rochester	255,390	3,963	B-20	43,054	17%
Salt Wells	51,421	1,624	DVTA	0	0%
Sheckler Pasture	22,210	145	B-16	4,187	19%
White Cloud	79,647	1,884	B-20, DVTA	23,936	30%
TOTAL¹	2,669,285	61,757	FRTC	357,488	13%

¹Total acres do not add up because of the overlap of Sheckler Pasture and the Lahontan Allotment.

Notes: (1) Acres were calculated using ArcGIS data provided by BLM (UTMz11 NAD83 projection) and may not be consistent with acres reported in the BLM's public Rangeland Administration System. (2) FRTC = Fallon Range Training Complex, DVTA = Dixie Valley Training Area.

3.4.3.4.1 Bravo-16

Land Withdrawal and Acquisition

Under Alternative 3, B-16 would have a similar land configuration as under Alternatives 1 and 2, with the exception of land south of Simpson Road. Under Alternative 3, those lands would not be withdrawn and lands previously withdrawn would be relinquished to BLM, resulting in a total closure of 31,875 BLM-administered acres compared to 32,201 BLM-administered acres under Alternative 1. The

proposed expansion areas for B-16 would be slightly less (a loss of between 488 and 737 permitted AUMs) than Alternatives 1 and 2, as shown in Figure 3.4-2 (also see Section 3.13, Socioeconomics).

Training Activities

Under Alternative 3, the types of training activities conducted at B-16 would be the same as under Alternatives 1 and 2, and neither the public nor livestock would be able to access B-16 during training events.

Public Accessibility

Visits requiring access to the Bravo ranges would be coordinated with the Navy and allowed if compatible with Navy training activities and range safety. Under Alternative 3, B-16 would be closed to public access as described under Alternative 2. Unlike Alternatives 1 and 2, the land south of Simpson Road would not be withdrawn under this alternative. Grazing would not be allowed on B-16 under Alternative 3.

Construction

Under Alternative 3, the proposed construction areas for B-16 would be the same as Alternatives 1 and 2. Construction would occur within the proposed B-16 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.4.2 Bravo-17

Land Withdrawal and Acquisition

Alternative 3 would expand B-17 to approximately 265,588 acres, which would be an increase of approximately 210,801 acres from existing conditions (see Table 2-7). The proposed expansion of B-17 would include withdrawing public land (i.e., BLM-administered land) and acquiring non-federal land, as shown in Figure 3.4-4. These non-federal parcels are largely undeveloped land, which have historically been used for mining, livestock grazing, and other uses. B-17 would be closed from livestock grazing. Expanding B-17 under this alternative would result in a loss of between 4,780 and 7,569 permitted AUMs from five BLM allotments (as discussed in Supporting Study – Livestock Grazing Allotment Study, available from <https://frtcmmodernization.com>).

Training Activities

Under Alternative 3, the types of training activities conducted at B-17 would be the same as under Alternatives 1 and 2, and neither the public nor livestock would be able to access B-17 during training events. The B-17 WDZ would be contained within the fenced boundary of B-17, and livestock grazing would not be allowed within this zone.

As described in Section 3.4.3.2.2 (Bravo-17), training noise could elicit a behavioral response from livestock outside B-17. Noise from training activities would be consistent with current noise levels but would be dispersed over a larger area. Modeled training noise associated with Navy activities would not be experienced beyond the range at levels that would significantly affect livestock grazing.

Public Accessibility

Visits requiring access to the Bravo ranges would be coordinated with the Navy and allowed if compatible with Navy training activities and range safety. Under Alternative 3, the public would be able to access portions of the proposed B-17 for bighorn sheep hunting, racing events, ceremonial or cultural

site visits, and land management activities. Areas previously used for livestock grazing would no longer be used for these purposes. B-17 would be fenced and closed for public safety. No one is allowed within a WDZ when a range is actively being used. B-17 would also include signage warning the public to not enter this area.

Alternative 3 would close 54 percent of the Bell Flat Allotment, 18 percent of the La Beau Flat Allotment, 88 percent of the Phillips Well Allotment, and 3 percent of the Pilot-Table Mountain Allotment. Unlike Alternatives 1 and 2, this alternative would not split the Phillips Well Allotment into two non-contiguous areas, but it would close a larger portion of the allotment (an increase of 16 percent). This alternative would close a larger portion of the Eastgate Allotment (16 percent) compared to Alternatives 1 and 2. This alternative would also close off an area of Pilot-Table Mountain Allotment (3 percent) where water ponds and rangeland improvements have been made; however, this alternative does not close as much of this land overall as Alternatives 1 and 2.

Construction

Construction would occur within the proposed B-17 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

Road and Infrastructure Improvements to Support Alternative 3

State Route 361 and the Paiute Pipeline

This alternative would include the potential relocation of 12 miles of State Route 361 outside the proposed expansion of the B-17 WDZ, likely within the Eastgate Allotment. Relocating this portion of State Route 361 could fragment the Eastgate Allotment depending on the placement of any route ultimately proposed for its relocation, which could also result in further reductions of AUMs and the loss or need to replace or relocate rangeland improvements. Using funding provided by the Navy, the Federal Highway Administration, in cooperation with the NDOT, would be responsible for planning, design, permitting, and constructing any realignment of State Route 361. 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.

Likewise, the potential relocation of the Paiute Pipeline could temporarily (from construction) or permanently prevent access to grazing lands outside the proposed B-17 boundary. The Navy would purchase the impacted portion of the Paiute Pipeline and then would pay for relocation of the existing Paiute Pipeline south of the proposed B-17 range. 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 Right of Way 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.

3.4.3.4.3 Bravo-20

Land Withdrawal and Acquisition

Under Alternative 3, B-20 would have a similar land configuration as under Alternatives 1 and 2, as shown in Figure 3.4-6. The proposed expansion areas for B-20 would be slightly less than under Alternatives 1 and 2, as shown in Table 2-7. B-20 would be closed from livestock grazing.

Training Activities

Under Alternative 3, the types of training activities conducted at B-20 would be the same as under Alternatives 1 and 2, and neither the public nor livestock would be able to access B-20 during training events.

Public Accessibility

Visits requiring access to the Bravo ranges would be coordinated with the Navy and allowed if compatible with Navy training activities and range safety. Under Alternative 3, B-20 would be closed to public access as described under Alternative 2. Impacts on grazing would be the similar to that of Alternatives 1 and 2.

Construction

Under Alternative 3, the proposed construction areas for B-20 would be the same as under Alternatives 1 and 2. Construction would occur within the proposed B-20 boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.4.4 Dixie Valley Training Area

Land Withdrawal and Acquisition

Under Alternative 3, the DVTA would expand to approximately 325,322 acres, which would be an increase of approximately 247,762 acres from existing conditions (see Table 2-7). Unlike Alternatives 1 and 2, the DVTA would not extend south of U.S. Route 50, as shown in Figure 3.4-8. Rather, the Navy proposes that Congress categorizes 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. Expanding the DVTA would entail the withdrawal of additional public land (i.e., BLM-administered land) and would include the acquisition of non-federal land. Grazing on federal allotments would continue within the DVTA under this alternative. Therefore, expanding the DVTA would not result in a loss of permitted AUMs under this alternative.

Training Activities

Under Alternative 3, the types of training activities conducted at the DVTA would be the same as under Alternatives 1 and 2. Training activities would expand within the proposed DVTA boundary into areas where they have not previously occurred. The public and livestock may see and hear aircraft and support vehicles during training activities within this area. As described in Section 3.4.3.2.4 (Dixie Valley Training Area), training noise could elicit a behavioral response from livestock. The military has no

authority to ask civilians to exit or leave open land areas within the DVTa. If the public enters a training area within the DVTa while a training event is underway, the training would temporarily cease or move elsewhere while the public uses the training area.

Public Access

The public would be able to continue to access the DVTa for livestock grazing under this alternative. The BLM would continue managing these allotments in accordance with the Federal Land Policy Management Act, applicable Resource Management Plans, and as outlined in the MOU between the Navy and BLM, which would be updated accordingly (see Section 3.4.3.4.4, Dixie Valley Training Area).

Construction

Construction would occur within the proposed DVTa boundary, which would be closed from livestock grazing. Although construction could temporarily disturb livestock on adjoining lands, these impacts would be temporary and less than significant.

3.4.3.4.5 Fallon Range Training Complex Special Use Airspace

The modification and reconfiguration of SUA under Alternative 3 would be similar to that described for Alternatives 1 and 2 and would be expected to generate the same relatively minimal impacts with respect to livestock. As described in Section 3.4.3.2.5 (Fallon Range Training Complex Special Use Airspace), livestock grazing has been conducted beneath FRTC SUA for over 70 years. Although some studies find the data to be inconclusive, most of the scientific literature indicates that livestock exhibit some form of behavioral response to aircraft noise (Wyle, 2014). The type of behavioral response depends on many variables (e.g., aircraft's size, speed, altitude, distance, color, and type of engine), but it is typically a startle, freezing, or fleeing response.

Alternative 3 proposes to change the configuration of existing SUA. Following the EIS process, the Navy would update relevant documents to formalize the recommendation for new safety and noise zones and confirm existing safety and noise zones. The Navy would continue to work with the local counties and municipalities as well as federal property land managers to plan for compatible land use development, which would include the BLM, USFWS, U.S. Forest Service, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties.

3.4.3.4.6 Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation

The FRTC Modernization project would remove acreage available for grazing livestock from 12 federal grazing allotments administered by BLM or the Bureau of Reclamation. These allotments would be affected by the expansion of three ordnance ranges (B-16, B-17, and B-20), which would require the closure of these areas to grazing because of range safety requirements. Table 3.4-6 depicts the extent that each grazing allotment would be affected under Alternative 3.

The process for determining payment amounts for losses resulting from permit modification or cancellation would be the same as discussed under Alternative 1 and 2, and laid out in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation).

Table 3.4-6: Impacts on Each Grazing Allotment Affected by the FRTC Modernization Under Alternative 3

Allotment Name	District	Total Acreage	Acreage Impacted	Percent Impacted	Permit Expiration
Phillips Well	BLM – Carson City	80,618	71,298	88%	10/31/19
Bell Flat	BLM – Carson City	91,997	49,528	54%	3/15/27
Copper Kettle	BLM – Carson City	108,220	43,515	40%	3/13/26
Lahontan	BLM – Carson City	77,882	29,847	38%	2/28/26
Sheckler Pasture	BOR – Lahontan Basin	22,210	4,187	19%	11/15/19
La Beau Flat	BLM – Carson City	122,640	22,628	18%	9/1/25
Rochester	BLM – Winnemucca	255,390	43,054	17%	2/27/28
Eastgate	BLM – Carson City	311,221	48,310	16%	9/27/25
White Cloud	BLM – Carson City	79,647	23,936	30%	2/28/29
Horse Mountain	BLM – Carson City	63,160	2,085	3%	9/30/29
Pilot-Table Mountain	BLM – Carson City	538,322	17,823	3%	4/14/23
Humboldt Sink	BLM – Winnemucca	190,728	1,277	1%	2/28/28

Notes: BLM = Bureau of Land Management, BOR = Bureau of Reclamation

3.4.3.4.7 Summary of Effects and Conclusions

Under Alternative 3, the Navy would close public access to approximately 352,601 acres of BLM allotments and 4,187 acres of Bureau of Reclamation pastureland in western and central Nevada. The Navy estimates that Alternative 3 would result in a loss of between 6,952 and 10,976 AUMs from existing grazing permits. This results in an average loss of 13 percent of available grazing areas and approximately 11–18 percent loss of permitted AUMs from the affected allotments. These losses represent a loss of up to approximately 7 percent of AUMs within the BLM Carson City District, less than 1 percent of AUMs within the BLM Winnemucca District, and less than 1 percent of all AUMs in Nevada. Section 3.13 (Socioeconomics) provides detailed discussion of these impacts. Because the proposed expansion area of Alternative 3 includes the loss of areas with higher forage potential, the loss of critical winter grazing areas, and the loss of rangeland improvements, implementation of Alternative 3 would significantly impact livestock grazing.

3.4.3.5 Proposed Management Practices, Monitoring, and Mitigation

Policies and procedures in the NAS Fallon Integrated Natural Resources Management Plan would continue to be implemented to avoid conflicts with livestock grazing (e.g., routine monitoring of the fence lines surrounding potentially hazardous areas to ensure that the fence is secure and cannot be crossed by people or animals).

3.4.3.5.1 Proposed Management Practices

The following management practices are proposed to avoid or minimize potential impacts on livestock grazing for Alternatives 1, 2, and 3:

- There are existing Standard Operating Procedures to address unauthorized livestock on the FRTC training ranges, which would be updated upon any ultimate Congressional decision on the lands requested for withdrawal and continue to be implemented.
- Livestock friendly erosion controls (e.g., aspen or synthetic wattles) should be used when performing construction activities on or adjacent to grazing land that is actively being used.

- The Navy would continue to work with the local counties and municipalities as well as federal property land managers to plan for compatible grazing beneath FRTC SUA, which would include the BLM, USFWS, U.S. Forest Service, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties.

3.4.3.5.2 Proposed Monitoring

The Navy would expand their fence line patrol and maintenance procedures to include fences that are on withdrawn lands. The Navy proposes to establish two Conservation Law Enforcement Officers at NAS Fallon. Part of the duties of these officers would include patrolling of the added fence line for trespass issues and reporting to the Navy any broken or downed fences for maintenance repair.

3.4.3.5.3 Proposed Mitigation

No mitigation measures are proposed for livestock grazing based on the analysis presented in Section 3.4.3 (Environmental Consequences). However, pursuant to 43 U.S.C. Section 315q of the Taylor Grazing Act of 1934, as amended, the Navy would make payments to federal grazing permit holders for losses suffered by the permit holders as a result of the withdrawal or other use of former federal grazing lands for war or national defense purposes if any of the action alternatives is ultimately chosen. The Navy would follow the procedures identified in Section 3.4.3.2.6 (Process for Determining Payment Amounts for Losses Resulting from Permit Modification or Cancellation) for making payment amount determinations.

3.4.3.6 Summary of Effects and Conclusions

Table 3.4-7 summarizes the effects of the alternatives on livestock grazing.

Table 3.4-7: Summary of Effects and Conclusions for Livestock Grazing

Stressor	Summary of Effects and National Environmental Policy Act Determinations
No Action Alternative	
Summary	<ul style="list-style-type: none"> • Livestock grazing would be anticipated to continue where permitted under the No Action Alternative. • Existing land uses at FRTC could be converted to livestock grazing following range closure activities. • Areas that cannot be rendered safe for public access would remain closed to livestock grazing.
Impact Conclusion	The No Action Alternative could result in limited beneficial impacts on livestock grazing depending on conversion success of the Bravo ranges and on habitat suitability, but would not result in significant impacts on livestock grazing.
Alternative 1	
Summary	<ul style="list-style-type: none"> • Alternative 1 would close approximately 381,241 acres of BLM allotments. • It would close approximately 4,187 acres of Bureau of Reclamation pastureland. • It would lead to the loss of between 7,896 and 10,432 AUMs (refer to Section 3.13, Socioeconomics).
Impact Conclusion	Alternative 1 would result in significant impacts on livestock grazing.
Alternative 2	
Summary	<ul style="list-style-type: none"> • Alternative 2 would close approximately 381,241 acres of BLM allotments. • It would close approximately 4,187 acres of Bureau of Reclamation pastureland. • It would lead to the loss of between 7,896 and 10,432 AUMs (refer to Section 3.13, Socioeconomics).
Impact Conclusion	Alternative 2 would result in significant impacts on livestock grazing.
Alternative 3	
Summary	<ul style="list-style-type: none"> • Alternative 3 would close approximately 352,601 acres of BLM allotments. • It would close approximately 4,187 acres of Bureau of Reclamation livestock grazing areas. • It would lead to the loss of between 6,952 and 10,976 AUMs (refer to Section 3.13, Socioeconomics).
Impact Conclusion	Alternative 3 would result in significant impacts on livestock grazing.

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