3.14 Public Health and Safety

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 65,153 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 offroad 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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3.14 Public Health and Safety and Protection of Children

This discussion of public health and safety and the protection of children includes consideration of any activities, occurrences, or operations that have the potential to affect the safety, well-being, or health of members of the public. A safe environment is one in which there is either no potential for death, serious bodily injury, illness, or property damage; or an optimally reduced and ultimately minimal potential for death, serious bodily injury, illness, or property damage.

3.14.1 Methodology

Public health and safety is an interdisciplinary issue, and its aspects intertwine with other environmental topics. Section 3.8 (Air Quality) addresses hazardous air pollutants, Section 3.9 (Water Resources) addresses hazardous water pollutants, and Section 3.7 (Noise) addresses human impacts and community noise levels resulting from training noise. The following sections evaluate each proposed alternative's potential effect on public health and safety within the Bravo (B)-16, B-17, B-19, and B-20 ranges, the Dixie Valley Training Area (DVTA), and Special Use Airspace (SUA).

3.14.1.1 Region of Influence

The region of influence for public health and safety concerns covers the entire Fallon Range Training Complex (FRTC) (including both SUA and Navy-controlled lands) and the immediately adjacent lands. Areas of heightened sensitivity to public health and safety concerns within the region of influence include areas where large groups of people may gather; for example, recreational areas and parks.

3.14.1.2 Regulatory Framework

Laws, regulations and policies pertaining to public health and safety are listed below:

- Abandoned Mine Lands public safety program (Nevada Revised Statutes 513 [2])
- Clean Air Act (42 United States Code [U.S.C.] section 7401)
- Clean Water Act (33 U.S.C. section 1251 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. section 9601 et seq.)
- Council on Environmental Quality Memorandum on Pollution Prevention and the National Environmental Policy Act (NEPA) (42 U.S.C. section 4331[b])
- Defense Environmental Restoration Program (10 U.S.C. section 2701)
- Emergency Planning and Community Right to Know Act (42 U.S.C. section 11001 et seq.)
- Excavations and High-Voltage Lines; Erection of fence or other safeguard around excavation, hole or shaft required (Nevada Revised Statues 455.010).
- Federal Aviation Regulations Part 91, General Operating and Flight Rules
- Liability of Owner, Lessee, or Occupant of Premises to Trespassers; Trespassing child (Nevada Revised Statues 41.510 [3])
- Pollution Prevention Act (42 U.S.C. section 13101 et seq.)
- Resource Conservation and Recovery Act (42 U.S.C. section 6901 et seq.) as amended by the Hazardous and Solid Waste Amendments (40 Code of Federal Regulations [CFR] part 273) and Hazardous materials (49 CFR part 171.8 Hazardous Materials Table)
- Safe Drinking Water Act (42 U.S.C. section 300f et seq.)

- Safe, Efficient Use and Preservation of the Navigable Airspace, 49 CFR part 77.
- The Military Munitions Rule (40 CFR Part 266, Subpart M) as amended by the Federal Facility Compliance Act of 1992 (42 U.S.C. section 6901) and Department of Defense (DoD) Manual 4715.26, DoD Military Munitions Rule Implementation Procedures
- Toxic Substances Control Act (15 U.S.C. section 2601 et seq.)
- EO 12088, Federal Compliance with Pollution Control Standards
- Executive Order (EO) 13045, Protection of Children from Environmental Health Risks and Safety Risks
- EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management

3.14.1.3 Approach to Analysis

The public health and safety and protection of children analysis contained in the following sections addresses issues related to the health and well-being of military personnel and civilians working, recreating, or living in the vicinity of the FRTC. Specifically, this section addresses the following:

- Emergency services (Section 3.14.2.1.1)
- Wildfire management (Section 3.14.2.1.2, and chaff and flares)
- Aircraft accident potential (Section 3.14.2.1.3, including Bird/Animal Aircraft Strike Hazard [BASH]), Range Compatibility Zones (RCZs) (Section 3.14.2.1.4, including Surface Danger Zones [SDZs]), and Weapons Danger Zones (WDZs)
- Unexploded ordnance (Section 3.14.2.1.5)
- Electromagnetic energy safety (Section 3.14.2.1.6)
- Lasers (Section 3.14.2.1.7)
- Abandoned mine lands (Section 3.14.2.1.8)
- Hazardous waste (Section 3.14.2.1.9, i.e., special hazards [asbestos containing materials, lead-based paint, polychlorinated biphenyls])
- Contaminated site management (Section 3.14.2.1.10, Range Sustainability Environmental Program Assessment)
- Protection of children (Section 3.14.2.1.11)

The analysis of impacts to public health and safety includes impacts to children in each section listed above, notwithstanding whether activities or safety procedures discussed specifically reference the protection of children. There is also a stand-alone Protection of Children (Section 3.14.2.1.11), which discusses the protection of children in the region of influence specifically. The hazardous materials and wastes analysis contained in the following sections addresses issues related to their use and management generally, as well as the presence and management of specific cleanup sites in the region of influence.

Factors considered in determining the potential significance of the alternatives' impacts on public health and safety and protection of children include

- the proximity of the training activities to public areas
- access control
- schedule (time of day, the day of the week)

- frequency, duration, and intensity of training activities
- range safety procedures
- operational control of hazardous activities or events
- safety history
- the probability that members of the public would come into contact with or otherwise be affected by a training activity, hazardous material, or waste
- the degree to which such training activities or hazardous material and waste would affect public health and safety

The likelihood that the public would be near a training activity determines the potential for exposure to the activity. If the potential for exposure exists, the degree of the potential effects on public health and safety, including increased risk of injury or loss of life, is determined. If the potential for exposure were zero, then public health and safety would not be affected. Types of activities that raise public safety concerns are those where members of the public are near to or within the footprint of a potentially hazardous training activity, hazardous material, or waste. Land detonations of explosives in a controlled training environment on Navy managed/controlled property, where a substantial buffer exists between the training site and adjacent public areas (i.e., outside of a WDZ), are deemed not to be a risk to public safety.

The Navy reviewed available literature and worked with land management agencies to identify existing public health and safety actions and concerns. Some of the documents used to inform this section include:

- 2015 Nevada Abandoned Mine Lands Report (2016)
- Administrative Guide for Military Activities On and Over the Public Lands (2012)
- Churchill County, Nevada Volunteer Fire Department Information (2017)
- Electromagnetic Environmental Effects: Requirements for Systems (2002)
- 2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement (2015)
- Final Environmental Assessment of Airfield Operations at Naval Air Station (NAS) Fallon, Nevada (2013)
- Final FRTC Encroachment Action Plan (2012)
- NAS Fallon Hazardous Waste Management Plan (2014)
- Chief of Naval Operations Instruction (OPNAVINST) 3550.1A: Marine Corps Order 2550.11
- Department of Defense Instruction 6055.11 Protecting Personnel from Electromagnetic Fields
- Range Air Installations Compatible Use Zones Study for B-17, B-19, and B-20 FRTC, Nevada (2011a)
- U.S. Navy Range Sustainability Environmental Program Assessment Policy Implementation Manual (2006)

Range users are required to communicate planned activities with the range scheduler before conducting any activities. Current range control procedures at the FRTC limit unanticipated interactions with the public. Fences and gates restrict access to controlled training areas within the FRTC, and posted signs

warn the public of potentially hazardous activities. Trainers and exercise participants are responsible for ensuring that nonparticipants are not at risk during all training activities. Military access to all ranges at the FRTC must be scheduled through the Naval Aviation Warfare Development Center (NAWDC). All exercise participants on the FRTC ranges are required to contact the Range Operations Center for authorization before proceeding onto any range. A range training area safety officer is assigned for all live-fire exercises. All personnel involved with a ground event are required to view a ground access brief and sign an acknowledgement form before using the scheduled range.

The NAWDC also manages and schedules airspace for the FRTC. Fallon Air Traffic Control (Desert Control) is the range coordinator for airspace. The Range Operations Center is the range coordinator for the ground/bombing ranges (U.S. Department of the Navy, 2015). Aircrew and Range Operations Center personnel are jointly responsible for air safety. Aircrews visually verify target areas prior to firing ammunition or dropping munitions to ensure that targets are clearly identified and that the target area is clear of nonparticipating aircraft, personnel, ground vehicles, and livestock, as discussed in Section 3.6 (Airspace).

3.14.1.4 Public Scoping Concerns

Generally, the public is concerned with the health and safety of their communities as a result of the Proposed Action by the Navy. Some of these general issues include effects to children, water quality, air quality, noise effects to humans, and the possibility of explosion or accidental harm to the public from training and testing activities. Water quality is discussed in Section 3.9 (Water Resources), air quality is discussed in Section 3.8 (Air Quality), noise effects to humans are discussed in Section 3.7 (Noise), and effects to children as well as Accident Potential Zones are discussed in this section. For further information regarding comments received during the public scoping process, please refer to Appendix D (Public Involvement).

Other concerns raised during public scoping included the following:

- Emergency services (e.g., effects to medical emergency flight paths in and out of Eureka during NAS Fallon military excercises, and the potential removal of cell towers from Fairview Peak, and any resulting loss of phone communication)
- Wildfire management (e.g., fires caused by military operations and lack of grazing)
- Aircraft accident potential (e.g., jet crash concerns in areas outside of the FRTC and associated clean up)
- Weapons safety and unexploded ordnance (e.g., the potential for off-range munitions, bombing hazards, unexploded ordnance potential presence in areas that are open for public access for part of the year and closed for training during other parts of the year)
- Electromagnetic energy and laser safety (e.g., potential electromagnetic warfare hazards)
- Hazardous materials and waste (e.g., chemicals and radiation affecting soil and air quality; ingestion and inhallation of chaff; red phosporous, perchlorate, lead, and depleted uranium; clean up and disposal)
- Noise (e.g., loud jet noise over the area east of Fallon, sonic boom noise, and explosive noise causing injury)
- Geological resources concerns (e.g., Navy activities causing earthquakes)

3.14.2 Affected Environment

This section begins with an overview of the requirements and practices within the current FRTC ranges and the general region prior to identifying particular public health and safety issues by range or training area. These respective ranges and lands are proposed to be withdrawn or acquired for or by the Navy (which are made up of the existing FRTC ranges as well as Bureau of Land Management [BLM], other federal lands, and with privately owned lands).

3.14.2.1 Current Requirements and Practices

NAS Fallon has a variety of range safety procedures in place to ensure public health and safety, and manages public access and proximity.

3.14.2.1.1 Emergency Services

The three main emergency service functions include police, fire and rescue service, and emergency medical service. Police protection and emergency response on the FRTC is provided by the NAS Fallon Security Department. The Security Department works in conjunction with other local law enforcement branches, such as the Fallon Police Department or Churchill County Sheriff, as necessary. The NAS Fallon Fire Department provides fire protection on NAS Fallon and the FRTC. The Fallon/Churchill Volunteer Fire Department, which currently averages 400 fire and extrication calls per year and has an average response time of less than six minutes per call, provides fire protection in surrounding areas, including the FRTC (Churchill County, 2017). Navy emergency services such as the NAS Fallon Security Department and the NAS Fallon Fire Department handle emergencies on the ranges on any land that is restricted to public access and controlled by the Navy. On the FRTC lands controlled by the BLM, like the DVTA, emergencies are handled jointly with the County emergency services, BLM services, Nevada Department of Emergency Management, and the Navy security department.

Emergencies that require aerial transportation (medical-evacuations [medical-evacuation such as Care Flights]) take precedence over training activities (discussed in detail in Section 3.6, Airspace). When emergencies that require airborne transportation do occur, the Federal Aviation Administration (FAA) makes an immediate airspace request with NAS Fallon Air Traffic Control, and all training is terminated or relocated to other areas in order to make the required airspace available immediately. Emergency aircraft are permitted to pass through restricted airspace when necessary (Churchill County, 2016).

3.14.2.1.2 Wildfire Management

In response to the severity of the wildfires of 2000, President Clinton had the Secretary of Agriculture and Secretary of the Interior compile a report outlining how the nation can better respond to wildfire risks and emergencies; this became the National Fire Plan. The Nevada Fire Safe Council is focused on reducing the fire risk and increasing the survivability of at-risk communities in Nevada. The Nevada Fire Safe Council administered a project funded by the National Fire Plan to complete Community Wildfire Protection Plans for all counties in Nevada. Communities identified in the Federal Register (66 Federal Register 751) as communities at risk within the vicinity of federal lands to the threat of wildfire also had assessments completed for them. Many of the counties underlying the FRTC, including Churchill, Lander, Lyon, Mineral, Nye, and Pershing, are considered to be at risk of wildfires. Between 2007 and 2009 the Wildland Fire Associates completed assessments for these counties (Wildland Fire Associates, 2007). Figure 3.14-1 shows the wildfire potential assessment results on the Regional Fire-Risk Index. Results of the assessments are presented in the range-by-range analysis in this section. An unintended potential effect of training activities is the ignition of wildfires. Because wildfires are so destructive to the environment, the Navy has implemented and would continue to implement operational and administrative controls to reduce the occurrence of wildfires. Within range boundaries, the Navy prevents fires by implementing weed abatement programs and removing dry vegetative fuel sources near targets. Outside of range boundaries, the Navy implements control measures to ensure that airborne training activities do not start fires. For example, regarding the use of airborne flares, the Navy has established minimum flare release heights to prevent wildfire occurrence. During the fire season (typically between May and October of each year), the Navy raises these minimum flare release heights to 2,000 feet Above Ground Level to further reduce a flare ignition source. While flare training is very important in terms of training realism and value, the Navy eliminates the use of airborne flares during severe drought conditions.

Fires that have occurred in the past were due primarily to a combination of aircrew error and flare equipment malfunctions. In these cases, the Navy has attempted to learn from and to correct any historical deficiencies. In the case of flare malfunction, the Navy will issue a Conventional Ordnance Deficiency Report to the Naval Safety Center, and temporarily remove from the training inventory the flare type(s) believed to operate unreliably. If required by the outcome the Conventional Ordnance Deficiency Report investigation, the Navy would permanently remove from training, any known defective flares or flare types. For example, SM-875 flares were temporarily taken out of service as of July 2016 because components from this type of flare were found in the vicinity of two fires on the FRTC, which occurred on June 20 and 21, 2016. The Navy discontinued use of the SM-875 flare while it attempted to ascertain whether the flares may have caused the two fires due to some ordnance defect. However, the Navy has not been able to make such a determination, and recent information—including an instance of similar flare components having been found in the vicinity of another fire, where that fire was known to have been started by a lightning strike—has led the Navy to believe that there is no basis for concluding at this time that the flare in question was defective or was otherwise the cause of any fire. Accordingly, the Navy plans to resume use of the SM-875 flare, subject to monitoring and in accordance with the previously established range safety procedures and doctrine.

The Navy maintains fire prevention activities for Navy withdrawn lands and the BLM maintains fire prevention activities for BLM lands. The Navy manages firefighting within the bombing ranges and the BLM manages this function for all other BLM lands, including the DVTA lands withdrawn to the Navy but open to the public. The BLM and Navy signed the *Cooperative Fire Protection Agreement between the Naval Air Station Fallon, Nevada and Bureau of Land Management Carson City District*, on 10 June 1998.

According to the BLM's Administrative Guide for Military Activities On and Over Public Lands, BLM and the Navy mutually support each other in the prevention, suppression, and rehabilitation of wildfires both on withdrawn lands that are closed to public access and on lands that are in close proximity to such closed withdrawn lands but that are open to public access (Bureau of Land Management, 2012). Under this agreement, supporting agencies deploy aerial fire-fighting in the event of a wildfire, while the mutual aid agreement between the BLM and Navy would address resource protection, suppression of the fire, and rehabilitation of any environmental damage that may occur (Bureau of Land Management, 2012).

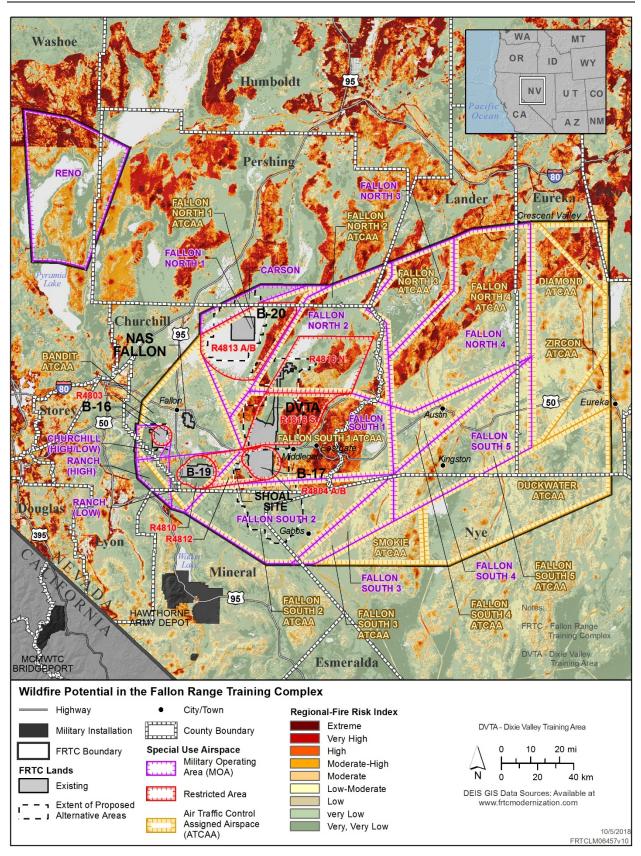


Figure 3.14-1: Wildfire Potential in the Fallon Range Training Complex

Chaff and Flares

Chaff and flares are passive, defensive countermeasures deployed by military aircraft to confuse and divert radar-guided or infrared-guided anti-aircraft missiles fired by other aircraft or from ground installations. Chaff and flares are used during training on the FRTC to validate the tactics, techniques, and procedures used by the Navy combat aircrews in avoiding or neutralizing these threats.

The FAA and Federal Communications Commission regulate chaff and flare use over public lands. When it is not fire season, flares are authorized for deployment below 2,000 feet Above Ground Level. During standard fire season restrictions, the minimum safe altitude for deploying decoy flares outside of the boundaries of the FRTC bombing ranges is 2,000 feet Above Ground Level.

Chaff consists of aluminum-coated fiber similar in size to human hair and when dispensed in accordance with applicable military policy and procedures has minimal to no impact. Chaff is normally dropped from altitudes of above 12,000 feet and below 35,000 feet Mean Sea Level and carried aloft in upper-level winds for great distances. Use of chaff does leave a small end cap that falls to the ground and degrades slowly over time. The chaff's end cap is biodegradable, and chaff fibers are tiny. Fibers disperse at altitude, therefore their impact to humans or wildlife on the ground is minimal. Properly dispensed chaff is non-detectable on the ground apart from the small end cap, and there are no known negative environmental or health effects from the use of chaff (Arfsten et al., 2001).

Current training on all of the ranges (i.e., B-16, B-17, B-19, B-20) and the DVTA includes the use of flares. When properly dispensed, flares travel less distance than chaff on the wind and burn out before hitting the ground. If procedures are followed (such as release altitude), and restrictions are applied during fire seasons, flares are not expected to cause wildfires. Rarely, if they are dispensed from unauthorized low-level use (below 12,000 feet), flares may leave small amounts of debris on the ground, and these instances have started wildfires. Strict Navy operational policies govern chaff and flare employment. During fire season, flare use is restricted. When there is a severe fire season, the use of flares is prohibited.

3.14.2.1.3 Aircraft Accident Potential

During aviation training activities, pilots avoid towns, noise-sensitive areas, and wilderness areas at prescribed vertical or horizontal distances whenever possible. For example, the Navy requires a 5-nautical mile buffer around the Yomba Tribal Settlement. Pilots also avoid areas where obstructions to air navigation have been identified, such as areas with powerlines. Potential aircraft mishaps are the primary safety concern for military training flights. NAS Fallon maintains detailed emergency and mishap response plans to react to an aircraft accident, should one occur. NAS Fallon has three runways with associated clear zones (i.e., takeoff safety zones) and accident potential zones (e.g., areas that extend beyond the clear zones at military airfields for purposes of safety clearance). The clear zones lie within NAS Fallon boundaries, and the accident potential zones extend to agricultural outlease areas. The Navy has recommendations for compatible land uses within accident potential zones.

Helicopter activities require the designation of clear zones but not accident potential zones. The clear zone for visual flight rules (VFR) is the same as the takeoff safety zone. The takeoff safety zone constitutes the area under the approach/departure surface until that surface is 50–100 feet above the landing zone elevation; this zone must be free of obstructions.

Unmanned aircraft systems (UAS) follow the same safety regulations as aircraft. If Navy or other DoD UAS are operating inside restricted airspace, they are required to operate under similar aircraft regulations. If operating outside of restricted airspace, the Navy and other DoD UAS need to operate

under FAA requirements, may require Certificates or Waivers of Authorization, and generally require either a chase plane or constant visual contact from the ground controller. Additionally, if a Navy or other DoD UAS loses radio or other contact, it is designed to circle in place until it can reacquire the signal. If it cannot, it is pre-programmed to return to a specific point.

Bird/Animal Aircraft Strike Hazard Bird strikes can cause extensive mechanical and structural damage to aircraft, and collisions can represent a significant hazard to flight operations, occasionally resulting in crashes. The Navy Safety Center began keeping bird strike records in 1980 and has reported that approximately 20,000 bird strikes have been recorded since then, resulting in two deaths and the loss of 25 aircraft and hundreds of millions of dollars of damage. To reduce the BASH, NAS Fallon developed a BASH management plan in accordance with Chief of Naval Operations Instruction 3750.21 (U.S. Department of the Navy, 2017) to identify and eliminate or minimize hazards to aircraft and ground operations. Although birds may be present on or above all of the ranges and at the DVTA, the BASH management plan states that relatively few birds would be expected at B-17 due to lack of vegetation, while B-20 may have more birds in the vicinity due to the Stillwater National Wildlife Refuge one mile southeast of B-20. Incidents for military aircraft primarily occur below 2,000 feet, and aircraft at FRTC are required to stay above 3,000 feet when overflying wildlife refuges. However, migratory birds flying at higher altitudes are still hazardous, as well as birds flying at night (U.S. Department of Defense, 2010).

3.14.2.1.4 Range Compatibility Zones

The Navy develops RCZs for all targets in order to provide recommendations for land use around ranges for compatibility with training and safety for public use and discusses these in a Range Air Installation Compatible Use Zone (RAICUZ) program. RCZs represent aviation and ordnance delivery safety concerns in areas based on degrees of safety that can be reasonably attained on the ground. There are three RCZs designated for Air-to-Ground ranges, RCZ-I, RCZ-II, and RCZ-III. RCZs are activated and deactivated according to training activities, but unexploded ordnance is potentially present in RCZ-I zones at all times. The RCZ-I is the minimum range surface area needed to contain ordnance employed in Air-to-Ground training, including the initial impact and ricochet. RCZ-I zones are a combination of the individual WDZs and SDZs and are not accessible to the public as they are the areas of highest safety risk.

- A WDZ represents the minimum safety requirements designed for aviation weapons training on DoD ranges. A WDZ encompasses the ground and airspace for lateral and vertical containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of aviation delivered munitions. This three-dimensional zone accounts for weapons accuracy, failures, and ricochets based on weapon type delivered by a specific aircraft type. The Navy must control the land under the WDZ (U.S. Department of the Navy, 2015).
- SDZs are areas associated with training ranges and designed to protect military personnel and the public from projectile impacts resulting from direct fire, including misdirected and accidental discharges and ricochets. When a range is in active use, the SDZ is an exclusion area that is strictly controlled and could contain projectiles, fragments, or components from firing, launching, or detonating weapons and explosives. An SDZ serves as a buffer for human safety downrange from a firing point and must be controlled by the Navy.

The RCZ-II is considered an intermediate level for safety hazard concern. The length of the RCZ-II zone begins when a pilot prepares for weapons delivery to the target. Release of weapons occurs only over restricted areas and are restricted to WDZs for any bombing range at the FRTC.

The RCZ-III is the minimum level of safety hazard concern and recognizes airspace that is restricted for safety of flight. RCZ-III areas in the FRTC include Military Operating Areas (MOAs) and Air Traffic Control Assigned Airspaces (ATCAAs). MOAs and ATCAAs are required to provide the range user tactical maneuvering room as a three-dimensional concept setting restrictions both vertically and laterally (U.S. Department of the Navy, 2011a). RCZ-IIIs are discussed in Section 3.6 (Airspace) and are not discussed further here.

3.14.2.1.5 Unexploded Ordnance

Unexploded ordnance may be present within the areas currently restricted to public access on the ranges. Unexploded ordnance may remain capable of detonation, thereby posing a physical risk to individuals in its vicinity. Any Unexploded Ordnance that is found on range is disposed of by Navy Explosives Ordnance Demolition teams stationed at NAS Fallon. On land ranges controlled by the Navy, this risk is limited to military personnel who are trained in unexploded ordnance avoidance and hunters or other members of the public who are authorized and briefed on safety protocols prior to entering the ranges. Unexploded ordnance remains capable of detonation, thereby posing a physical risk to individuals in its vicinity. On land ranges controlled by the Navy, this risk is limited to military personnel who are trained in unexploded ordnance posing a physical risk to individuals in its vicinity. On land ranges controlled by the Navy, this risk is limited to military personnel who are trained in unexploded ordnance avoidance. Explosive Ordnance Disposal personnel periodically survey and remove any unexploded ordnance from the range. However, any unexploded ordnance not immediately recovered and removed from the range could pose a risk. The OPNAVINST 3550.1 series covers a portion of the Navy's doctrine for weapons safety (Range Air Installations Compatible Use Zones). The Navy uses the DoD WDZ analysis tools and SDZ tools in the development of Navy ranges to ensure that ordnance is employed on the range and remains on the range to a very high degree (99.99 percent certainty).

Per Navy policy (OPNAVINST 3710.7 [Series]), the release of any air-to-surface ordnance should be accomplished within Restricted Airspace and all such releases should impact on Navy land. As required by the Department of Defense Military Munitions Rule Implementation Procedures (April, 2017), ordnance that inadvertently lands outside Navy property would be retrieved as soon as possible once the Navy learns that it has landed off range. While there is always a risk that ordnance may land off-range, the potential for such incidents is actually very low, as low as 1 in 10,000 occurrences. Any off-range ordnance would be collected by military personnel in accordance with best management practices and standard operating procedures. Explosive Ordnance Disposal personnel periodically survey and remove any unexploded ordnance from these ranges. Ranges B-16, B-17, B-19, and B-20 all potentially contain unexploded ordnance, but all such ordnance is expected to be within the range, where restricted access prevents civilians from coming into contact with ordnance.

The southern boundary of B-19 shares a 9-mile border with the 339,181-acre Walker River Paiute Indian Reservation. The Walker River Paiute Tribe is a federally recognized tribe of Northern Paiute. As a result of historical training practices (prior to 1989), a portion of the Reservation adjacent to B-19 was accidentally impacted with off-range ordnance. An effort to locate and clear historic ordnance was conducted and the Navy implemented measures that seek to eliminate (or at least dramatically reduce) the possibility of off-range ordnance near the southern boundary of training range B-19. In 1989, the Navy changed run-in lines, began using safety observation aircraft during live fire events, and provided additional briefings to aircrews regarding sensitive areas surrounding the ranges. A Memorandum of Understanding between NAS Fallon and the Walker River Paiute Tribe establishing protocols for both the Tribe and the Navy to follow in responding to potential future off-range ordnance incidents (e.g., notification and coordinating access to reservation lands) was signed on May 14, 2007. A Memorandum

of Agreement between the Tribe and Navy was signed on May 24, 2017, updating and clarifying procedures for addressing any future off-range ordnance incidents on the Reservation. The Navy is actively working with the Tribe to seek a mutually-agreeable resolution for the issue of historical off-range ordnance present on the Reservation.

3.14.2.1.6 Electromagnetic Energy Safety

The electromagnetic spectrum is made up of all frequencies (or wavelengths) of electromagnetic energy including radio frequency radiation. Radar, electronic warfare devices, navigational aids, two-way radios, cell phones, radio transmitters, and other communications and electronic devices produce electromagnetic radiation. This electromagnetic energy is comparable to civilian navigational aids and radars at airports and television weather stations. Transmitting antennas emit radiation as radio waves and microwaves. Exposure to radio frequency energy of sufficient intensity at frequencies between 3 kilohertz and 300 gigahertz can adversely affect people, munitions, or fuel (U.S. Department of the Navy, 2011b). The Federal Communications Commission strictly regulates the use of electromagnetic energy for training to prevent damage or injury to personnel.

Thresholds based on frequency and power output have been determined for electromagnetic energy sources to determine hazardous levels of electromagnetic energy to humans, munitions, and fuel (U.S. Department of Defense, 2002, 2009). Physical reactions to electromagnetic radiation are subject to the power and energy of the emitted electromagnetic wave. Human tissue is directly susceptible to shock or burns when metallic objects, which have absorbed high electromagnetic radiation, are touched. This type of burn would be similar to the type of burn produced inside a microwave oven. The heating effect varies with the power and the frequency of the electromagnetic energy.

Standard operating procedures to avoid excessive exposures of electromagnetic energy from military aircraft establish minimum separation distances between electromagnetic energy emitters and people, munitions, and fuels (U.S. Department of Defense, 2009). Practices are in place to protect the public from electromagnetic radiation hazards. The U.S. Navy Hazards of Electromagnetic Radiation to Personnel Ship Survey and Certification Process and Basic Hazards of Electromagnetic Radiation to Ordnance are two of the programs that personnel must complete to participate in training and testing involving electromagnetic devices. These practices include procedures to protect the public such as setting the heights and angles of electromagnetic energy transmissions to avoid direct exposure of humans, munitions, or fuel; posting warning signs; and establishing safe operating levels when radar systems are operational. Interference with cell phone signals and Global Positioning System (GPS) devices can occasionally occur during operations (e.g., during Ground Maneuver Tactics, Tactical Ground Mobility, and Convoy Operations).

The Navy is not authorized to intentionally jam civil communications bands, and continually acts to responsibly use the DoD authorized spectrum for testing and training while avoiding significant impact to other spectrum users. Operations on the FRTC purposely avoid broad conflict with civilian systems. NAWDC and NAS Fallon coordinate and will continue to coordinate with infrastructure providers and spectrum users to avoid conflicts.

3.14.2.1.7 Lasers

The Navy employs laser systems as a critical part of realistic tactical training including precision range (distance) finding, as target designation/illumination devices, for engagement with laser-guided weapons, for mine detection, mine countermeasures, and as a non-lethal deterrent. Laser use is not authorized on land that is open to the public. All laser systems require a safety designation from the

Naval Laser Safety Review Board and a local range safety certification from the Navy's Executive Agent for laser programs. Fallon ranges are certified laser safe as a part of these processes. The OPNAVINST 5100.27B/Marine Corps Order 5104.1C, *Navy LASER Hazards Control Program*, provides Navy and Marine Corps policy and guidance in the identification and control of laser hazards. The Navy observes strict precautions and has written instructions in place for laser users to ensure that nonparticipants are not exposed to intense light energy. Laser safety procedures (*OPNAVINST 3550.1A, Marine Corps Order 2550.11*) for aircraft require:

- An initial pass over the target before laser activation to ensure that target areas are clear.
- During actual laser use, aircraft run-in headings are also restricted to avoid unintentional contact with personnel or nonparticipants.
- Personnel participating in laser training activities are required to complete a laser safety course (U.S. Department of the Navy, 2008a).

In the FRTC Bravo ranges, ground laser targeting training is conducted using lasers as aiming devices for small arms, as target scoring systems instead of live rounds, for range finding, to illuminate targets at night, and to mark targets for identification by aircraft.

3.14.2.1.8 Abandoned Mine Lands

In 1987, the Nevada Legislature tasked the Commission on Mineral Resources with creating an Abandoned Mine Lands public safety program (Nevada Legislature, 1987). Nevada Revised Statutes 455.010 requires an owner to erect a fence or other safeguard around any excavation, hole, or shaft. Nevada Revised Statutes 41.510 (3) explains the owner's duty to keep the premises safe or to warn of danger for persons who participate in recreational activities. Nevada Administrative Code 513.270 defines an owner as: "the owner of real property who is shown to be the owner on records located in the courthouse of the county in which the real property is located." While the Navy (as a federal agency) is not formally subject to these state law requirements, the Navy does and would continue to substantively comply with such requirements as a matter of policy. Abandoned mine lands have been discovered within Pershing, Churchill, Lyon, and Mineral Counties. According to a 2016 report by the Commission on Mineral Resources, in 2016 there were 1,196 hazards discovered and 1,191 hazards secured (Ghiglieri, 2017). Between 1986 and 2013, there were 43 reported incidents (e.g., a person falling into a mine shaft, person falling down a winze [a connection between different levels in an underground mine], dog falling down a shaft, off-highway vehicle [OHV] rolling into a pit, person drowning in open pit lake) related to abandoned mine lands. There were no reported incidents from 2014–2016 (Ghiglieri, 2017).

3.14.2.1.9 Hazardous Waste

The Navy has implemented a strict Hazardous Material Control and Management Program and a Hazardous Waste Minimization Program for all activities. These programs are governed Navy-wide by applicable OPNAVINSTs, state laws, and at the installation by specific instructions issued by the Base Commander (Integrated Contingency Plan) (in conjunction with the Navy's compliance with applicable federal, state, and local laws and regulations pertaining to hazardous wastes generally). The Navy continuously monitors its operations to find ways to minimize the use of hazardous materials and to reduce the generation of hazardous wastes.

Any spills would be managed and cleaned up in accordance with applicable state and federal regulatory requirements. If any such spill were to exceed reportable quantities as defined by the U.S. Environmental Protection Agency for regulated material, the event would be immediately reported to the NAS Fallon Environmental Division per the Integrated Contingency Plan (U.S. Department of the Navy, 2009).

3.14.2.1.10 Range Sustainability Environmental Program Assessment

A critical aspect in ensuring the long-term sustainability of military ranges is to understand the environmental conditions at each range and to manage these resources in an environmentally sound manner. The Navy's Range Sustainability Environmental Program Assessment (RSEPA) describes the Navy's approach for assessing and addressing the environmental condition of land-based operational ranges where munitions are used or were used, within the United States and its territories. RSEPA implements the requirements of DoD Directive 4715.14 Operational Range Assessments by directing; (1) how to evaluate the regulatory compliance status of each operational range including ways to maintain compliance; and (2) how to evaluate the potential for adverse impacts on human health and the environment from munitions constituents, including identification and implementation of protective measures to minimize any such risk. DoD Directive 4715.11, *Environmental and Explosives Safety on Operational Ranges in the United States*, is addressed on operational Navy ranges by regularly clearing unexploded ordnance.

The Navy's RSEPA policy implementation manual provides requirements, procedures, and protective measures necessary for implementing range assessments under the RSEPA Program (U.S. Department of the Navy, 2006). The range assessment process may consist of two phases: a range condition assessment conducted every five years and, if necessary, a more comprehensive range evaluation (U.S. Department of the Navy, 2015). Protective measures can be implemented at any point in the assessment process to maintain range sustainability and address specific environmental concerns.

One of the purposes of sustainable range oversight is to address any off-range releases of munitions constituents of potential concern that might potentially occur, through the CERCLA process. If munitions constituents were to migrate off-range and present an unacceptable risk to human health and the environment, the Navy would strive to control the on-range portion of any such source through appropriate range management techniques. In accordance with the requirements of CERCLA, the Navy would assess, identify, and execute the appropriate environmental response action for any off-range area affected by such a release. Any action taken would include coordinating with the appropriate regulators and stakeholders.

The Navy has prepared a Range Condition Assessment report and subsequent updates for the FRTC as part of Chief of Naval Operations' RSEPA process. The latest report for the FRTC was completed in 2015. Goals of the range condition assessment are to determine whether (1) munitions constituents are migrating off range and presenting unacceptable risk to human health and the environment, and (2) the range complies with environmental laws and regulations. The process includes the following three main steps, although not all ranges require all three steps: the Range Condition Assessment, the Comprehensive Range Evaluation, and Sustainable Range Oversight (U.S. Department of the Navy, 2008b).

Operational Range Clearance Program

The Operational Range Clearance Program maintains the ranges by collecting and removing ordnance and ordnance related debris and materials continuously throughout the year. OPNAVINST 3571.4, *Operational Range Clearance Policy for Navy Ranges*, establishes the policy and requirements for performing operational range clearance on Navy ranges. The purpose of the operational range clearance is to sustain readiness and ensure the safety of aircrews, range operations, maintenance personnel, range clearance personnel, and the public. Operational range clearance also provides secondary benefits to the Navy by reducing the amount of expended military munitions that accumulate in the environment. Completion of the *Fallon Operational Range Clearance Plan* (NAS Fallon Instruction 4790 Series) occurred in 2013 for NAS Fallon and the FRTC. The plan is updated every five years, or sooner if training operations, operational frequency, or range characteristics change significantly. Clearance activities are accomplished to meet range-specific needs based on the following range clearance categories specified in the Commander U.S. Fleet Forces Command and Commander Pacific Fleet *Operational Range Clearance Guidance Document for Implementing OPNAVINST 3571.4*: laser training events, target fidelity, maintenance personnel safety, and long-term range sustainment (U.S. Department of the Navy, 2015).

Defense Installation Restoration Program

The DoD created the Installation Restoration Program to identify, evaluate, and clean up contamination from past operations on military bases. The program was designed to ensure DoD compliance with federal and state environmental laws and regulations. Active sites are those that require additional action to clean them up to the level(s) required by applicable federal and state laws and regulations, before they can be closed as "No Further Action." No Installation Restoration Program sites occur in the FRTC; therefore, they are not discussed further.

3.14.2.1.11 Protection of Children

This section presents or describes the presence of children that could be at risk as a result of the Proposed Action in the region of influence. Table 3.14-1 compares the percentage of the population that is less than 18 years of age within the region of influence to that of the State of Nevada and the nation. The percentage of children in Churchill County is similar to that of the State of Nevada and only slightly higher than that of the nation. Underlying the FRTC airspace are the towns of Austin (population of 192 according to the 2010 census), Crescent Valley (392), Fallon (8,606), and Gabbs (269) (U.S. Census Bureau, 2017). Beyond the boundaries of NAS Fallon, overall population numbers are lower under the FRTC airspace compared to the surrounding area outside of the FRTC airspace (U.S. Department of the Navy, 2015).

Section 3.7 (Noise) identifies public schools within the region of influence. Enrollment at schools in the districts within the region of influence is shown in Table 3.14-2. Children are also present in the housing and personnel support areas of NAS Fallon.

U.S., State, or Selected Counties under Special	Рори	lation	Percentage of Less than 18	Average Family Size	
Use Airspace	2010	2017	2010	2017	2012–2016
United States	308,758,105	325,719,178	24.0	22.6	2.64
Nevada	2,700,691	2,998,039	24.6	22.9	2.72
Churchill County*	24,877	24,230	25.2	22.8	2.49
Elko County*	48,942	52,649	29.1	27.5	2.91
Eureka County*	1,987	1,961	24.2	23.4	2.25
Lander County*	5,775	5,693	27.6	26.4	2.78
Lyon County*	51,980	54,122	24.9	21.7	2.64
Mineral County*	4,771	4,457	18.3	19.1	2.15
Nye County*	42,477	44,202	20.7	16.7	2.45
Pershing County*	6,753	6,508	19.6	16.4	2.31
Washoe County*	421,427	460,587	23.6	21.9	2.57

Table 3.14-1: Population of Children in the Region of Influence

*Data was only available for the year 2017, not 2018.

Source: United States Census Bureau (2018)

Table 3.14-2: Enrollment of Children at Public Schools within the Region of Influence

School District	Enrollment (number of students)	Number of Elementary Schools	Number of Secondary Schools
Churchill County ¹	3,424	6*	6*
Elko County	9,935	15	16
Eureka County	291	3 ²	1
Lander County	1,027	4*	4*
Lyon County	8,986	18*	18*
Mineral County	587	4*	4*
Nye County	5,442	10	14
Pershing County	700	4*	4*
Washoe County	67,569	65	28 ³

¹ The school district includes a distance learning program that operates through an online-based curriculum and a homeschooling program (Churchill County School District, 2015).

² There are two elementary schools in the unincorporated town of Eureka and one elementary school in Crescent Valley (Nevada Department of Education, 2016).

³ The Washoe County School District also has a few special education schools (Nevada Department of Education, 2016)

*Churchill County, Lander County, Lyon County, Mineral County, Pershing County School Districts have combined elementary and secondary schools. Source: (State of Nevada Department of Education, 2017)

3.14.2.2 Bravo-16

The B-16 range is located within five miles of the City of Fallon, directly to the southwest of NAS Fallon. A portion of B-16 that includes and is north of Sand Canyon Road is currently open to the public. The rest of the range is closed to the public and is currently used primarily for Naval Special Warfare Activities. Controlling public access to B-16 is necessary in order to protect the public and military personnel from harm. The use of fences and posted signs ensures public access restrictions to the range. All range access gates are closed and locked at all times, other than to allow the passage of authorized users. Standard operating procedures require that the range safety officer makes sure that a range and the associated SDZ are clear of trespassers before starting training activities (U.S. Department of the Navy, 2015). The current RCZ-I area (SDZs and WDZs) is within the current boundaries of the B-16 range. The RCZ-II falls primarily over B-16 but extends over compatible use undeveloped federal land (U.S. Department of the Navy, 2011a).

The regional-fire risk index in B-16, including additional lands requested for withdrawal to expand B-16, ranges from very, very low to moderate. Figure 3.14-1 shows the wildfire potential in both Churchill and Lyon Counties. Wildfire risk hazard values were assessed on lands within Churchill County to protect human life, property, and resources from a catastrophic wildfire. Fuel treatment options presented in the study included mowing/mastication, livestock grazing, prescribed fire, chemical control (herbicides), seeding, greenstripping, hand thinning and brushing, mechanical treatment, biomass utilization, and combinations of these treatments. According to the study, the overall wildfire risk in Churchill County is a moderate-to-high threat to 81 percent of the values at risk (i.e., human life, property, resources, critical wildlife habitat, cultural concerns, and economically important infrastructure improvements) (Wildland Fire Associates, 2007). A similar study was conducted in Lyon County. According to the values at risk (Wildland Fire Associates, 2009a).

There are communication towers or electronic warfare emitters currently within the B-16 range. Practices are in place to protect the public from electromagnetic radiation hazards as described in Section 3.14.2.1.6 (Electromagnetic Energy Safety). Ground laser targeting training is conducted on B-16 as discussed in Section 3.14.2.1.7 (Lasers).

Abandoned mines with hazard ratings of low and moderate were found on the proposed additional withdrawal lands for B-16 (to be closed to public access, as shown in Figure 3.14-2 and Figure 3.14-3). The abandoned mine features found are in the land requested for withdrawal and classified as abandoned shafts. One is rated as moderate and one is rated as low on the mine hazard rating, as shown in Table 3.14-3.

Rarely is hazardous material and waste generated in B-16. Maintenance on backup generators produces used petroleum, oils, lubricants, antifreeze, and spent batteries (U.S. Department of the Navy, 2014). Any spills would be handled as discussed in Section 3.14.2.1.9 (Hazardous Waste). Certified Hazardous Material/Hazardous Waste personnel handle all hazardous material and waste in accordance with applicable federal, state, and local regulations to ensure environmental health and safety.

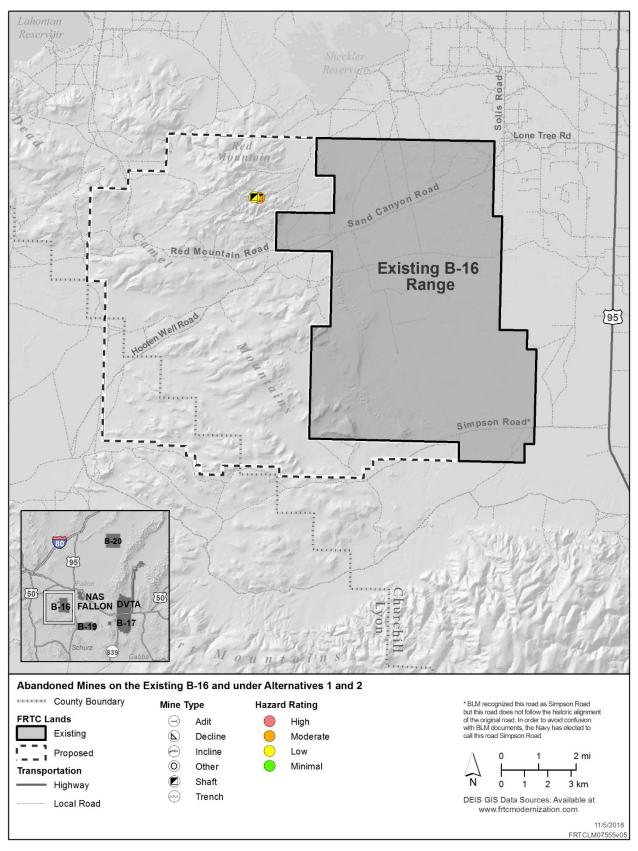


Figure 3.14-2: Abandoned Mines on the Existing B-16 and Under Alternatives 1 and 2

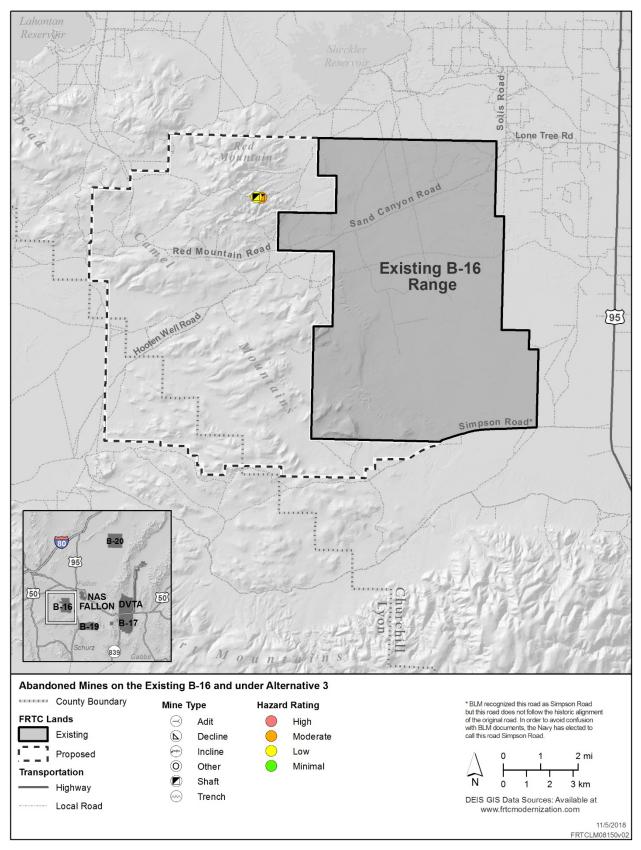


Figure 3.14-3: Abandoned Mines on the Existing B-16 and Under Alternative 3

Table 3.14-3: Abandoned Mine Lands in the Existing B-16 and Lands Requested for Withdrawal

Mino Fosturo Typo		Total								
Mine Feature Type		3	4	5	6	7	8	9	TOtal	
B-16 Existing										
SHAFT									0	
B-16 Proposed										
SHAFT				1	1				2	
								Total	2	

Notes: Hazard ratings are established by the scoring system described in Nevada Administrative Code (NAC) 513.340 (Rating of Degree of Danger). After scoring a mine feature, the mine is ranked according to NAC 513.360. A hazard rating of 2 or 3 points is minimal, 4 or 5 points is low, 6 or 7 points is moderate, and 8 points or above is a high hazard.

3.14.2.3 Bravo-17

B-17 is an aerial bombing range where public access is restricted. Signs and fences are in place to prevent civilians from entering B-17 when the range is operating to prevent accidental entry of non-participants for public safety. The current RCZ-I areas (SDZs and WDZs) are within the current boundaries of the existing B-17 range. The RCZ-II on B-17 extends beyond the current boundaries, primarily over compatible use area RR-20 Rural Resource District with no agricultural or residential districts (see Section 3.2, Land Use, for more information).

The regional-fire risk index near B-17 ranges from very, very low to extreme. Figure 3.14-1 shows the wildfire potential in Churchill, Mineral, and Nye counties. As discussed for B-16, the overall wildfire risk in Churchill County, Mineral County, and Nye County is a moderate-to-high threat to 81 percent (Wildland Fire Associates, 2007), 94 percent (Wildland Fire Associates, 2009b), and 98 percent of the values at risk respectively (Wildland Fire Associates, 2008).

There are communication towers currently within the B-17 range, including one on Fairview Peak. The communication towers are built to aim away from the public in order to avoid public health and safety hazards from electromagnetic radiation. The communication towers are also fenced to prevent the public from approaching the towers. Practices are in place to protect the public from electromagnetic radiation hazards that may occur from training activities as described in Section 3.14.2.1.6 (Electromagnetic Energy Safety). Training activities in B-17 use lasers, however, all laser use is contained within the range, and measures are taken to protect the public from operational hazards as discussed in Section 3.14.2.1.7 (Lasers).

Abandoned mines were found within the existing and additional B-17 lands as shown in Figure 3.14-4 and Figure 3.14-5 and range from high hazard to no hazard ratings. Seven hazardous abandoned mine features were found in the existing B-17 range, 105 hazardous abandoned mine features were found in the lands requested for withdrawal or proposed for acquisition under Alternatives 1 and 2, and 124 hazardous abandoned mine features were found in lands requested for withdrawal or proposed for acquisition under Alternative 3. These hazardous abandoned mine features include adits, declines, inclines, other, shafts, and trenches and are listed in Table 3.14-4. Mine features are various entryways into a mine. Adits are horizontal entrances while shafts are vertical entrances. Declines are sloping underground openings typically used for machine access. An incline is often a steep entrance so hoisting is used for transporting equipment in and out of a mine. Finally, trenches are dug to expose mining resources.

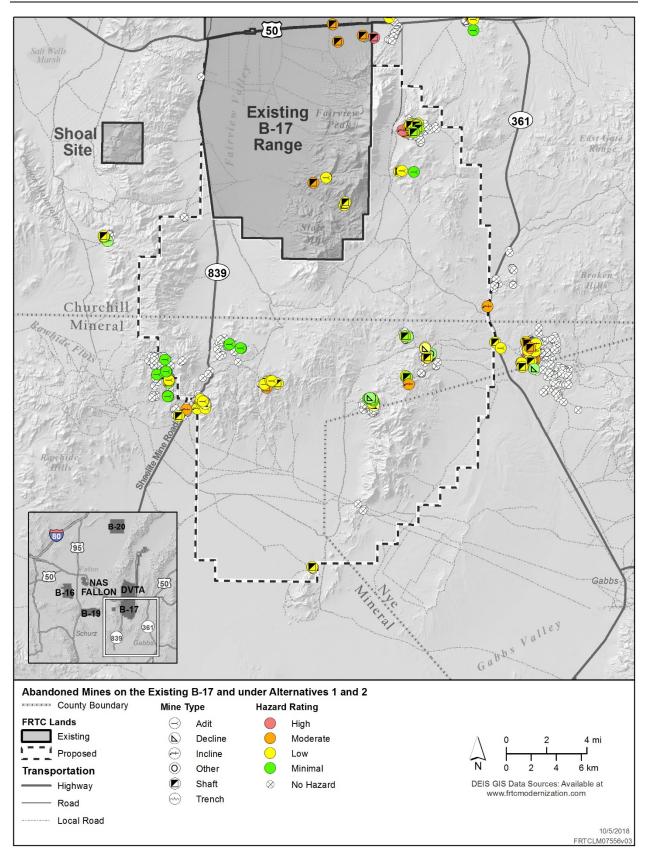


Figure 3.14-4: Abandoned Mines on the Existing B-17 and under Alternatives 1 and 2

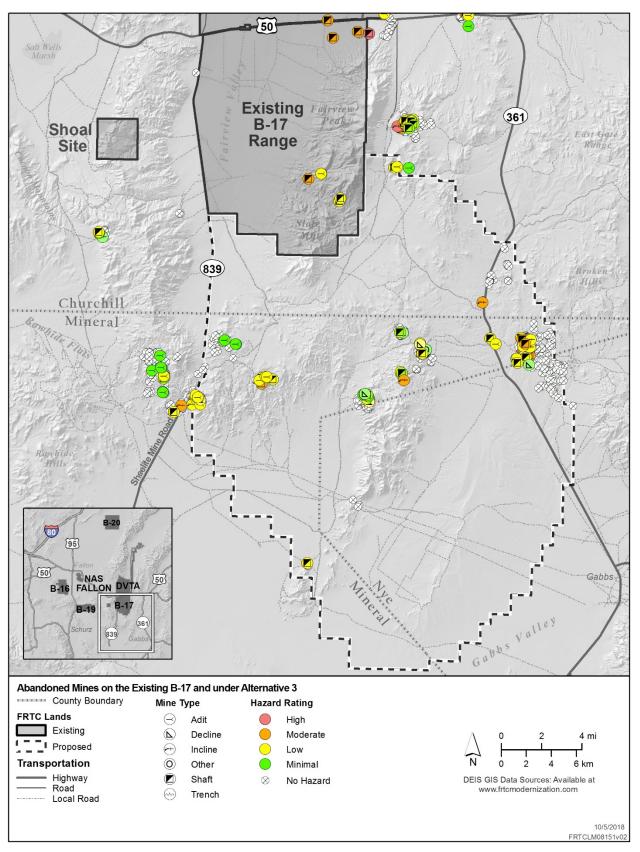


Figure 3.14-5: Abandoned Mines on the Existing B-17 and Under Alternative 3

Mine Feature Type		Hazard Rating								
		3	4	5	6	7	8	9	Total	
B-17 Existing										
ADIT			1						1	
SHAFT			1	2	3				6	
			•	•	•			Total	7	
B-17 Proposed (Alternatives 1 and 2)										
ADIT	6	7	16	7					36	
DECLINE		3	5	1					9	
INCLINE		1	1	2	6	2	1		13	
OTHER		4	1						5	
SHAFT	1	7	14	11	9				42	
								Total	105	
B-17 Proposed (Alternative 3)										
ADIT	5	4	15	8					32	
DECLINE		4	5	2					11	
INCLINE			3	2	6	1	2		14	
OTHER	_	4	1					_	5	
SHAFT	1	4	13	14	14	7	6	2	61	
TRENCH				1					1	
								Total	124	

Table 3.14-4: Abandoned Mine Lands in the Existing B-17 and Lands Requested for Withdrawal or Proposed forAcquisition

Notes: Hazard ratings are established by the scoring system described in Nevada Administrative Code (NAC) 513.340 (Rating of Degree of Danger). After scoring a mine feature, the mine is ranked according to NAC 513.360. A hazard rating of 2 or 3 points is minimal, 4 or 5 points is low, 6 or 7 points is moderate, and 8 points or above is a high hazard.

Generation of hazardous materials and wastes could occur in B-17 because of vehicle and generator maintenance activities (generating used petroleum, oils, lubricants, antifreeze, and spent batteries). Other special hazards include asbestos when removed from vehicles and other equipment before their use as targets. Other wastes include Low-Level Radiation Waste such as radium dials (found in the dials of clocks within some vehicle targets) that are removed from targets and placed in a locker located in the target storage area. A NAS Fallon Safety Manager acts as Radiological Safety Officer and arranges the appropriate shipment and disposal of this waste (U.S. Department of the Navy, 2014). Certified Hazardous Material/Hazardous Waste personnel handle all hazardous material and waste in accordance with applicable federal, state, and local regulations to ensure environmental health and safety.

3.14.2.4 Bravo-19

Public access to the majority of the current B-19 range is restricted, and fences and signs are used to prevent the public from entering hazardous areas. NAS Fallon and the Walker River Paiute Tribe are located under SUA between B-19 and B-17 and recently signed a Memorandum of Agreement establishing protocols between those on the reservation lands and the Navy for response and coordination with respect to any potential future incidences involving off-range ordnance. Military

operating areas provide the minimum SUA for the safe maneuvering of aircraft on the FRTC. The Navy avoids population centers by 1,500 feet Above Ground Level and noise-sensitive areas by 3,000 feet Above Ground Level, as per current Navy and FAA regulations (Federal Aviation Administration, 2017).

The current RCZ-I area is within the existing range boundaries of B-19. The land uses outside of the B-19 boundaries are all compatible with the RCZ-II due to overflight restrictions (weapons systems are not permitted to be armed until the aircraft have crossed eastbound over U.S. Route 95 into the target area, and aircraft are not allowed to fly armed over the spotting towers along the south boundary of B-19) mandated by the Navy when operating in these areas.

The regional-fire risk index for B-19 ranges from very, very low to moderate-high. Figure 3.14-1 shows the wildfire potential in Churchill County. As discussed for B-16 and B-17, within Churchill County the overall wildfire risk is a moderate-to-high threat to 81 percent of the values at risk (Wildland Fire Associates, 2007).

Training activities in B-19 use lasers; however, all laser use is contained within the range, and measures discussed under Section 3.14.2.1.7 (Lasers) are taken to protect the public from operational hazards.

Seven abandoned mines were found on B-19. They range in hazard risk from low to moderate, as shown in Section 3.14.2.6 (Dixie Valley Training Area), Figure 3.14-8 and Figure 3.14-9, and discussed in Section 3.14.2.1.8 (Abandoned Mine Lands). The seven abandoned mines are classified as adits and shafts; Table 3.14-5 shows counts.

Mine Feature Tune		Tatal							
Mine Feature Type	2	3	4	5	6	7	8	9	Total
B-19 Existing and Proposed									
ADIT		2	1						3
SHAFT			1	1	2				4
								Total	7

Table 3.14-5: Abandoned Mine Lands in the Existing and Requested B-19

Notes: Hazard ratings are established by the scoring system described in Nevada Administrative Code (NAC) 513.340 (Rating of Degree of Danger). After scoring a mine feature, the mine is ranked according to NAC 513.360. A hazard rating of 2 or 3 points is minimal, 4 or 5 points is low, 6 or 7 points is moderate, and 8 points or above is a high hazard.

B-19 rarely generates hazardous materials and waste. Any spills would be handled as discussed in Section 3.14.2.1.9 (Hazardous Waste). Certified Hazardous Material/Hazardous Waste personnel handle all hazardous material and waste in accordance with applicable federal, state, and local regulations to ensure environmental health and safety.

3.14.2.5 Bravo-20

Public access to the current B-20 range is restricted, and fences and signs are used to prevent the public from entering the range and encountering hazardous areas. The current RCZ-I area is within the existing range boundaries of B-20. The Stillwater Wildlife Management Area, the Stillwater Wildlife Refuge, the Fallon National Wildlife Refuge, and the Stillwater Wilderness Study Area land uses are compatible with the RCZ-II due to overflight restrictions (airspace is not available for use below 3,000 feet Above Ground Level) suggested by the Navy when operating in these areas.

The regional-fire risk index for B-20 and nearby areas ranges from very, very low to extreme. Figure 3.14-1 shows the wildfire potential in Churchill and Pershing Counties. As discussed for B-16 and B-17, within Churchill County the overall wildfire risk is a moderate-to-high threat to 81 percent of the values at risk (Wildland Fire Associates, 2007). In Pershing County wildfire poses a moderate-to-high threat to 91 percent of the values at risk (Wildland Fire Associates, 2009c).

There are communication towers and a radar van target currently within the B-20 range. Practices are in place to protect the public from electromagnetic radiation hazards as described in Section 3.14.2.1.6 (Electromagnetic Energy Safety). Training activities in B-20 use lasers; however, all laser use is contained within the range and measures discussed under Section 3.14.2.1.7 (Lasers) are taken to protect the public from operational hazards.

Abandoned mines were found on lands requested for withdrawal as part of the proposed expansion of B-20. They range in hazard risk from minimal to no hazard, as shown in Figure 3.14-6 and Figure 3.14-7. The land requested for withdrawal near the Navy B-20 Access road has over 20 non-hazardous features near it. Two abandoned mines, classified as "other" are low on the hazard rating and are in the northern portion of the land requested for withdrawal, while there are six adits in other parts of the area that range from low to no hazard as shown in Table 3.14-6.

		Tatal							
Mine Feature Type	2	3	4	5	6	7	8	9	Total
B-20 Existing									
ADIT									0
OTHER									0
B-20 Proposed									
ADIT	4		2						6
OTHER			2						2
								Total	8

Table 3.14-6: Abandoned Mine Lands in the Existing B-20 and Lands Requested for Withdrawal

Notes: Hazard ratings are established by the scoring system described in Nevada Administrative Code (NAC) 513.340 (Rating of Degree of Danger). After scoring a mine feature, the mine is ranked according to NAC 513.360. A hazard rating of 2 or 3 points is minimal, 4 or 5 points is low, 6 or 7 points is moderate, and 8 points or above is a high hazard.

B-20 rarely generates hazardous materials and waste. Maintenance on heavy equipment and backup generators produces used petroleum, oils, lubricants, antifreeze, and spent batteries (U.S. Department of the Navy, 2014). Any spills would be handled as discussed in Section 3.14.2.1.9 (Hazardous Waste). Certified Hazardous Material/Hazardous Waste personnel handle all hazardous material and waste in accordance with applicable federal, state, and local regulations to ensure environmental health and safety.

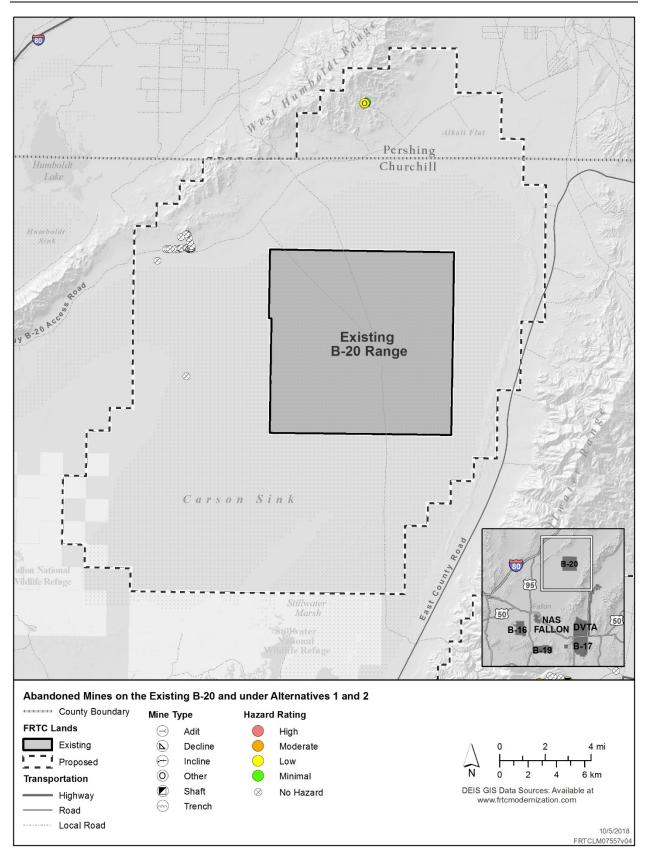


Figure 3.14-6: Abandoned Mines on the Existing B-20 and Under Alternatives 1 and 2

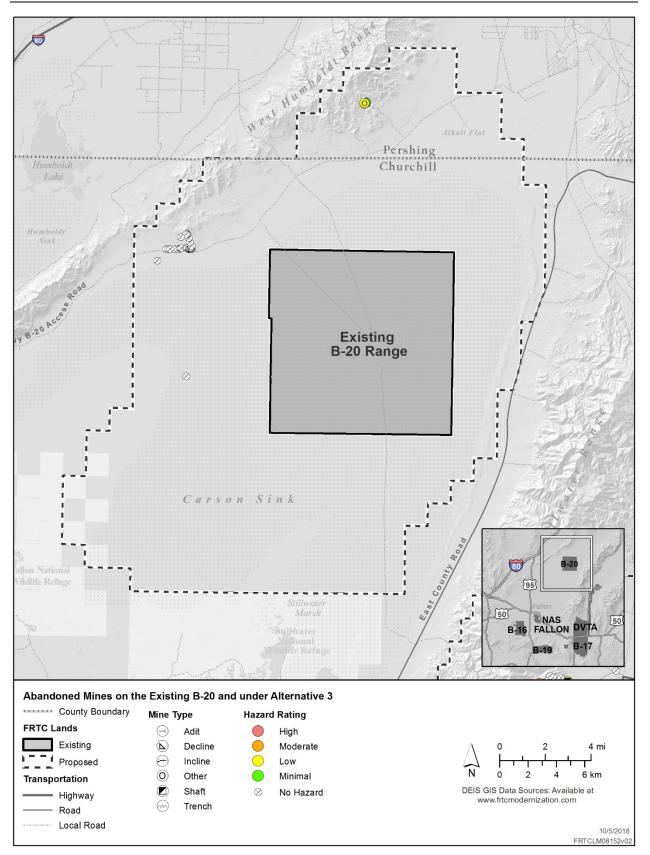


Figure 3.14-7: Abandoned Mines on the Existing B-20 and Under Alternative 3

3.14.2.6 Dixie Valley Training Area

Public access is permitted in the majority, but not all (e.g., Centroid [see Figure 3.14-8 and Figure 3.14-9], Electronic Warfare sites) of the DVTA, and standard operating procedures are in place to ensure that training personnel maintain safe distances between activities and non-participants (U.S. Department of the Navy, 2012). The DVTA training activities do not use live munitions; therefore, there are no WDZs, or RCZs in the area. The regional-fire risk index in the DVTA ranges from very, very low to extreme. Figure 3.14-1 shows the wildfire potential in the DVTA, which is in Churchill County. The overall wildfire risk in Churchill County is a moderate-to-high threat to 81 percent of the values at risk (Wildland Fire Associates, 2007). The DVTA contains a system of electromagnetic energy emitters on lands accessible to the public that are designed for electronic warfare training. Fixed emitters are fenced off to keep the public at a safe distance, while mobile emitters maintain a safe separation distance between the emitter and any civilians on the range. All sources of electromagnetic radiation follow the procedures and protocols outlined in Section 3.14.2.1.6 (Electromagnetic Energy Safety) to avoid and minimize impacts on public health and safety. Interference with cell phone signals and GPS devices can occasionally occur during operations (e.g., during Ground Maneuver Tactics, Tactical Ground Mobility, and Convoy Operations). The Navy is not authorized to intentionally jam civil communications bands, and continually acts to responsibly use the DoD-authorized spectrum for testing and training while avoiding significant impact to other spectrum users. Operations on the FRTC purposely avoid broad conflict with civilian systems. NAWDC and NAS Fallon coordinate and will continue to coordinate with infrastructure providers and spectrum users to avoid conflicts. Training activities at the DVTA do not use lasers.

The BLM has secured hazardous abandoned mines in the DVTA in a manner similar to what is required under the Nevada abandoned mine lands public safety program (see Section 3.14.2.1.9, Hazardous Waste). Abandoned mines found on the existing DVTA and on the additional lands requested for withdrawal or proposed for acquisition range from high to no hazard ratings (see Figure 3.14-8 and Figure 3.14-9). On the existing DVTA there are two shafts and one adit that range from moderate to high hazard risk. In the land requested for withdrawal or proposed for acquisition there are 259 mine features and 279 mine features under the different Alternative configurations. The abandoned mine features and their ratings are shown in Table 3.14-7.

The DVTA generates hazardous materials and wastes from the Centroid located 35 miles east of NAS Fallon and directly north of U.S. Route 50. The Centroid provides electronic warfare training, as well as support, operation, and maintenance of electronic warfare sites in the DVTA. Vehicle and generator maintenance produces used petroleum, oils, lubricants, and antifreeze. Parts washers in the Maintenance Shop at the Centroid generate used breakthrough and millennium solvent on a periodic basis. Spent lead-acid batteries are picked up when the battery supplier delivers new batteries, and oil/water separator waste is generated by a gravity differential oil/water separator that services the vehicle wash rack and discharges its water to a leach field located east of the Centroid facility. Oily waste does not discharge to the leach field, as the oil-water separator is inspected frequently and oily waste pumped and disposed of according to all applicable regulations (U.S. Department of the Navy, 2014). Certified Hazardous Material/Hazardous Waste personnel handle all hazardous material and waste in accordance with applicable federal, state, and local regulations to ensure environmental health and safety.

Table 3.14-7: Abandoned Mine Lands in the Existing DVTA and Requested for Withdrawal or Proposed for
Acquisition

Mine Feeture Ture		Hazard Rating									
Mine Feature Type	2	3	4	5	6	7	8	9	Total		
DVTA Existing											
ADIT				1					1		
SHAFT						1	1		2		
						•	•	Total	3		
DVTA Proposed (Alternative	s 1 and 2)										
ADIT	14	52	17	25	2	2		1	113		
DECLINE		1							1		
INCLINE		6	9	10	4	4	1		34		
OTHER			3	4		1			8		
SHAFT	2	31	31	14	11	7	3	3	102		
TRENCH			1						1		
								Total	259		
DVTA Proposed (Alternative	3)										
ADIT	15	55	18	25	2	2		1	118		
DECLINE		1							1		
INCLINE		7	9	11	4	5	2		38		
OTHER			3	4		1			8		
SHAFT	2	34	33	16	15	7	3	3	113		
TRENCH			1						1		
								Total	279		

Notes: Hazard ratings are established by the scoring system described in Nevada Administrative Code (NAC) 513.340 (Rating of Degree of Danger). After scoring a mine feature, the mine is ranked according to NAC 513.360. A hazard rating of 2 or 3 points is minimal, 4 or 5 points is low, 6 or 7 points is moderate, and 8 points or above is a high hazard.

3.14.2.7 Special Use Airspace

The following nine counties partially underlie the FRTC SUA: Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe. The FRTC SUA includes 9 restricted areas, 15 MOAs, 15 ATCAAs, 2 supersonic operating areas, and a Civilian VFR corridor. Restricted areas are not permanently closed to general aviation, but are activated for purposes of military aviation as necessary in order to support safe range operations. The restricted areas are used for activities that are hazardous to commercial and general aviation traffic, and are closed to that traffic. The MOAs and ATCAAs contain non-hazardous activities and are open to commercial as well as General Aviation traffic. The VFR corridor for civilian and military transit through the FRTC airspace follows U.S. Route 50 from Sand Mountain to Austin, Nevada. The types of training that produce chaff emissions (e.g., combat search and rescue activities) take place throughout the SUA.

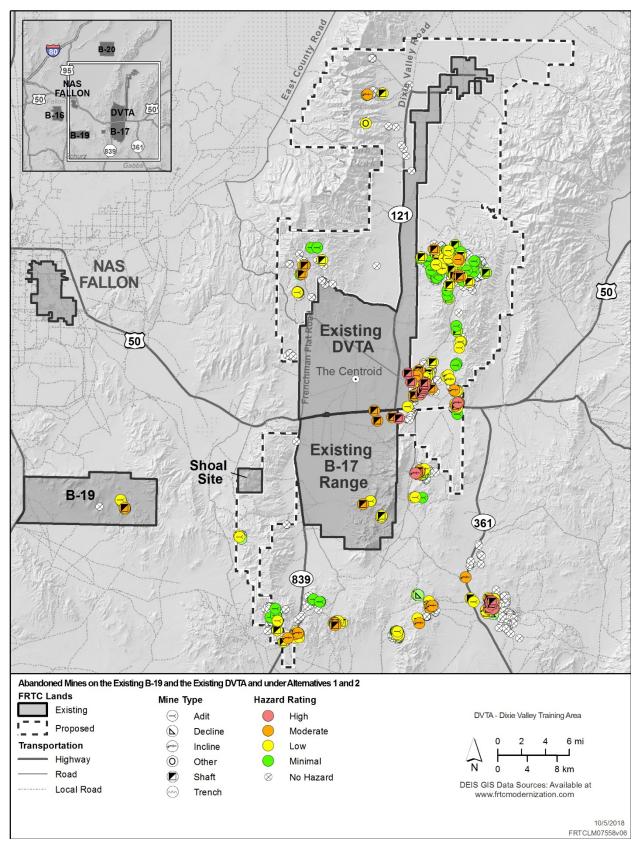


Figure 3.14-8: Abandoned Mines on the Existing B-19 and the Existing DVTA and Under Alternatives 1 and 2

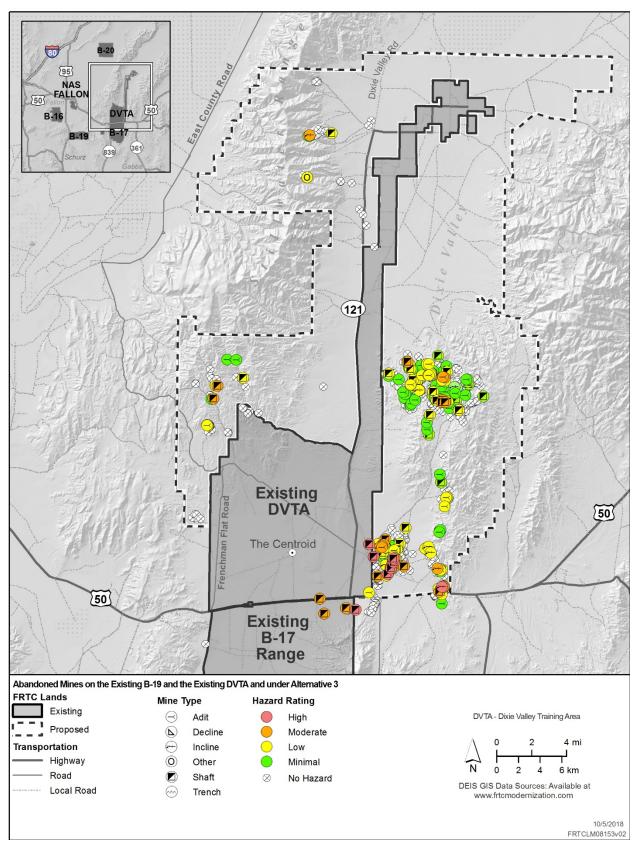


Figure 3.14-9: Abandoned Mines on the Existing B-19 and the Existing DVTA and Under Alternative 3

3.14.3 Environmental Consequences

The following provides an analysis of environmental effects of the No Action Alternative and Alternatives 1 through 3 against the environmental baseline as described in Section 2.4 (Environmental Baseline [Current Training Activities]). The potential effects on public health and safety and protection of children were evaluated assuming the continued implementation of the Navy's current safety procedures for all activities in the FRTC, as proposed for modernization and expansion.

This analysis focuses on potential impacts on public health and safety and protection of children arising from movement of training activities, changes to public access on withdrawn or acquired land, and construction. 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 3.14.3.6, Summary of Effects and Conclusions).

3.14.3.1 No Action Alternative

The No Action Alternative is not the environmental baseline to which Alternative 1, 2, or 3 are compared in this analysis. See Section 2.4 (Environmental Baseline [Current Training Activities]) of this Environmental Impact Statement for a detailed description of the baseline. Under the No Action Alternative, the renewal of the current land withdrawal would not occur, additional land would not be withdrawn, and training exercises that require ground ranges or restricted airspace would likely cease at the FRTC following the expiration of the Public Law 106-65 withdrawal in November 2021. Upon the expiration of this withdrawal, the Navy would work with stakeholders to prioritize and address any environmental remediation needed on these lands, in anticipation of potential relinquishment to the BLM or other potential disposal options. Training infrastructure and instrumentation would likely be removed, including those that are part of the Electronic Warfare Complex. No public access would occur at these ranges during the decontamination process. Also, those areas where live, high-explosive munitions were used may be contaminated to the point where future public access would not be possible. Assuming B-16, B-17, B-19, and B-20 could be rendered safe, these areas could potentially be made available to the public following the decontamination process.

Areas that could not be rendered safe during the decontamination process would not be publicly available as they would be unsafe for people to access. Fire management would be covered by the BLM on lands being remediated in conjunction with relinquishment at a time agreed upon with the Navy. Therefore, so long as any necessary access restrictions would be maintained, these areas would have no significant impacts on public health and safety. Pending the reevaluation of the mission of NAS Fallon, the Navy could take steps to coordinate with the FAA to return all of the FRTC airspace to the FAA for integration into the commercial national airspace. The Class Delta airspace above the NAS Fallon airfield would remain active. Some range activities that only require MOAs (e.g., non-firing air combat maneuvers, search and rescue, close air support) could still occur in all of the FRTC.

Based on the above, there would be no known environmental health or safety risks associated with the No Action Alternative that would disproportionately affect children. Therefore, implementation of the No Action Alternative would not result in environmental health or safety risks that would disproportionately affect children. Therefore, no significant impacts would occur to public health and safety and protection of children with the implementation of the No Action Alternative.

3.14.3.2 Alternative 1: Modernization of the Fallon Range Training Complex

This section first analyzes public health and safety issues that are applicable to all the ranges with the implementation of Alternative 1, followed by a range-by-range analysis of specific issues with greater potential to vary in terms of impacts at a given range.

3.14.3.2.1 Emergency Services

Under Alternative 1, emergency environmental response on the ranges would continue to be handled by the NAS Fallon Security Department and NAS Fallon Fire Department. The NAS Fallon Environmental Department would ensure cleanup occurs according to applicable regulations. When needed, both departments would continue to work in conjunction with other local law enforcement branches. Emergencies would be handled in the same manner as they are currently and no changes in service would be required because the expanded land areas would be covered under the same emergency response plans.

Based on these considerations, impacts on public health and safety and protection of children associated with emergency services would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children due to emergency services under Alternative 1.

3.14.3.2.2 Fire Risk and Wildfire Management

The Navy would continue to work diligently to reduce the risk of wildfires due to Navy training activities under Alternative 1. Training activities on the ranges would not change in type or quantity under Alternative 1; however, there would be changes in target location. Flares have the potential to cause wildfires but, due to standard military procedures for their release above 2,000 feet during fire season and their proper dispensing protocol (as discussed above in the Chaff and Flare section of the Affected Environment), they do not pose a threat to public health and safety.

The FRTC is actively developing a Fire Management Plan. The relative success of any wildfire suppression effort is contingent upon many factors including the location of the fire, fuel loading, weather conditions, distance from fire-fighting assets, timing of fire incident notification, response times for fire-fighting assets, and the accessibility of the terrain where the fire occurs. As such, fires are themselves largely unpredictable, and the particular factors present for a given fire are likewise unpredictable, making an overall assessment of impacts associated with such fires difficult. Because fires are unpredictable (e.g., crash of an aircraft), the effects cannot be definitively assessed. The effectiveness of the Fire Management Plan would continue to be reviewed on an ongoing basis in accordance with adaptive fire management procedures that would be contained in the Fire Management Plan. The measures would be refined as necessary to ensure they remain effective to sustain the Installation's mission, and protect and conserve natural resources.

The Navy's goal is to suppress all fires to minimize fire-related effects while maintaining operational requirements, and the safety of all personnel involved in fire management operations. The fire management measures and safety protocols, are expected to reduce the effects of uncontrolled wildfires. Based on these considerations, impacts on public health and safety associated with wildfires would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children due to fire risk and wildfire management under Alternative 1.

3.14.3.2.3 Aircraft-Related Accidents

Flight-related mishaps can include emergency landings, aircraft crashes, mid-air collisions with other aircraft or birds, or accidental release of ordnance. These types of accidents would not have an increased potential for occurring under Alternative 1 because additional flight operations are not proposed. Therefore, the risks of such accidents occurring and the potential for impacts on public health and safety under Alternative 1 would not significantly change from baseline conditions. Bird and bat strikes may occur during any phase of flight, but are most likely during the take-off, initial climb, approach, and landing phases because of the greater numbers of animals in flight at lower levels. While all aircraft strikes are considered serious and dangerous events, the number of related mortalities is small considering Navy-wide aircraft activities. Most would be expected to occur during take-off and landings, but would have a potential to occur if low altitude flights co-occurred with wildlife aggregating features, such as water features, riparian corridors, forests, and ridge lines. Birds and bats would cooccur with low-altitude training activities and therefore be subject to airstrike. The potential for incidental mortality from aircraft strikes exists in the proposed modified airspace. The Naval Safety Center reported that, from 1981 to 2010, there were 116 strike incidents at Fallon (see Section 3.10, Biological Resources, for more information). Therefore, military training activities would continue to impact individual birds, but expected incident rates would continue to be low. While BASH can be a serious threat to aircraft in many operating environments, there would be no changes to flight operations in areas with known bird habitats such as B-20 over the Fallon Wildlife Refuge where a 3,000 feet Above Ground Level would be maintained.

Based on these considerations, impacts on public health and safety and protection of children associated with aircraft-related accidents would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children due to aircraft related accidents under Alternative 1.

3.14.3.2.4 Aircraft-Delivered and Ground-Based Ordnance

Ordnance use associated with air-to-ground activities would occur within B-16, B-17, B-19, and B-20 but no new procedures would need to be established for aircraft-delivered ordnance within the modified airspace. Aircraft-delivered ordnance would be contained within the ranges requested for withdrawal or proposed for acquisition, and would not pose a risk to the public. In addition, no new procedures for ordnance use with ground-based weapons firing and maneuvering activities would need to be established. No new procedures are required because there are no proposed increases or changes in types of ordnance used. Existing procedures identified in Section 3.14.2.1.4 (Range Compatibility Zones) would be followed for proposed aircraft-delivered ordnance and munitions within the proposed target and ground-based activities areas. In addition, all target areas (and associated WDZs) would be located within military range control boundaries and ground-based fire and maneuver activities would be fully contained within the associated SDZs for a 360° field of fire.

For any unexploded ordnance generated as part of aircraft-delivered ordnance operations or ground-based operations, range clearance procedures would be followed as identified in Section 3.14.2.1.9 (Hazardous Waste).

Based on these considerations, impacts on public health and safety and protection of children associated with aircraft-delivered and ground-based ordnance use would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and

safety and protection of children due to aircraft delivered and ground based ordnance under Alternative 1.

3.14.3.2.5 Electromagnetic Energy Safety

All sources of electromagnetic energy used in expanded lands would follow the same procedures and protocols that are currently implemented and outlined in Section 3.14.2.1.6 (Electromagnetic Energy Safety) to avoid or minimize impacts on public health and safety.

Strong electromagnetic radiation can cause fire if an electromagnetic wave were to create a spark near explosives or ordnance. Strong electromagnetic waves can also induce an electric current capable of overloading or destroying electrical equipment, while less strong radiation waves can interfere with electromagnetic signals, such as radio, television, and telephone. Any transmitter sites or areas where electronic training activities occur would be located on property owned and controlled by the Navy, to which the general public would not have access (i.e., sites or areas would be fenced off). Standard operating procedures to protect the general public to the maximum extent practicable would be followed as described in Section 3.14.2.1.6 (Electromagnetic Energy Safety) in all areas where this training would occur. NAWDC and NAS Fallon have, and will continue to coordinate with infrastructure providers and spectrum users to avoid conflicts with broad civilian systems. Based on these considerations, impacts on public health and safety and protection of children associated with electromagnetic energy would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children due to electromagnetic energy use under Alternative 1.

3.14.3.2.6 Lasers

Since there would be no change in the type or tempo of training activities under Alternative 1, the use of lasers would remain the same. Lasers would only be used on lands with restricted access, and laser use would be in accordance with procedures that are already in place to protect personnel and civilians.

Based on these considerations, impacts on public health and safety and protection of children from lasers would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children due to laser use under Alternative 1.

3.14.3.2.7 Abandoned Mine Lands

As shown in Figure 3.14-2 through 3.14-9, there are abandoned mines and mining facilities such as mine shafts and tunnels present within the lands requested for withdrawal or proposed for acquisition. The Navy would be responsible for the inventory, monitoring, and the proper handling of any Abandoned Mine Land features on Navy property under Alternative 1. Abandoned mines found within lands with public access such as the DVTA would be secured in accordance with applicable abandoned mine land program policies. Securing abandoned mines would involve fencing, backfilling, sealing, or bat compatible closures as applicable (Nevada Commission on Mineral Resources, 2016). In ranges that are restricted to public access, the public would not be able to access abandoned mines. Because the withdrawn or acquired land areas would be designated for military use and fenced on the Bravo ranges and the abandoned mines found on the DVTA and other areas open to public access, Alternative 1 would not increase the risk to public health and safety as a result of abandoned mine lands. Based on these

considerations, impacts on public health and safety and protection of children from abandoned mine lands would not be significant and a range-by-range analysis is not required.

Therefore, there would be no significant impact on public health and safety and protection of children due to abandoned mine lands under Alternative 1.

3.14.3.2.8 Hazardous Waste

Under Alternative 1, hazardous materials and waste would not increase or change in type from those currently used or produced on the bombing ranges or at the DVTA. Based on these considerations, impacts on public health and safety and protection of children from hazardous waste would not be significant and a range-by-range analysis is not required. Therefore, there would be no significant impact on public health and safety and protection of children as a result of hazardous waste production under Alternative 1.

3.14.3.2.9 Protection of Children

No schools, parks, residences or other areas typically associated with the aggregation of children are located within or near proposed training range expansion areas. No known environmental health or safety risks associated with Alternative 1 would occur that would disproportionately affect children. Proposed construction at B-16, B-17, B-20, and the DVTA would not occur at locations where children are prevalent. Based on these considerations, impacts on children would not be significant and a range-by-range analysis is not required. Therefore, implementation of Alternative 1 would not result in environmental public health or safety risks that would disproportionately affect children.

3.14.3.2.10 Bravo-16

Land Withdrawal and Acquisition

Under Alternative 1, the B-16 range would expand to the west by virtue of the Navy withdrawing approximately 32,201 additional acres of federal BLM land (see Table 2-1, Figure 2-2), increasing the range's total area to approximately 59,560 acres. These new lands would be fenced and managed in accordance with all applicable legal requirements and Navy policies and protocols. The Navy would propose to hire two Conservation Law Enforcement Officers to monitor and repair fences; this would not increase the risk to public health and safety and protection of children in B-16. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 1.

Training Activities

Under Alternative 1, there would be no change to the types of training activities at B-16. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 1.

Public Accessibility

Under Alternative 1, no public access to B-16 would be allowed except for Navy-authorized activities, such as tribal ceremonial or cultural site visits, academic research, and regulatory or management activities (e.g. BLM or Nevada Department of Wildlife [NDOW] activities). This includes the northern portion of the existing range, which is currently open for public access. For ceremonial or cultural site

visits or academic research on B-16, current procedures would remain in effect and would include the following:

- site visits would need to be compatible with mission training activities and operate on a notto-interfere basis
- bombing range scheduling and access procedures would remain in effect as per Navy range management doctrine
- for safety purposes, site visit personnel would be escorted by Navy range personnel

These policies would reduce public health and safety risks. Security fencing would restrict access to the range and the public would not interact with any training activities. Because the withdrawn land areas would be designated for military use and fenced on the B-16, Alternative 1 would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 1.

Construction

During proposed construction and improvement activities at B-16, standard safety measures such as construction fencing, signs, and security would be implemented to minimize safety risks and unauthorized access. Perimeter fencing and access gates would also be constructed. Installation of the fencing would follow recommendations described in the BLM's Handbook 1741-1 (Fencing) which includes avoiding bulldozer clearing, or other major soil disturbing methods. Section 3.8 (Air Quality) provides a detailed analysis on emissions and fugitive dust associated with construction activities. Noise and fugitive dust associated with construction activities. Noise short periods (on a daily basis for only limited periods of time, and only for certain daylight hours during such times), and would not pose a health and safety risk to the public. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 1.

3.14.3.2.11 Bravo-17

Land Withdrawal and Acquisition

Under Alternative 1, approximately 178,013 additional acres (176,977 acres of BLM lands and 1,036 acres of non-federally owned lands) would be withdrawn or acquired to expand the B-17 range to the south (see Figure 2-3), increasing its total area to approximately 232,799 acres. These new lands would be fenced and managed in accordance with all applicable legal requirements and Navy policies and protocols. The Navy would propose to hire two Conservation Law Enforcement Officers to monitor and repair fences; this would not increase the risk to public health and safety and protection of children in B-17. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 1.

Training Activities

Under Alternative 1, B-17 targets would be moved farther away from U.S. Route 50. The B-17 expansion would keep targets farther from public access as the expansion would add more distance between the public on U.S Route 50 and training activities, thus decreasing risks to public health and safety. Although the expansion would decrease the distance between the public in Gabbs and the training activities, the activities would be contained on the range and would not impact the public health and safety of the town of Gabbs. Under Alternative 1, there would be no change to training activities at B-17. Range procedures would be followed for unexploded ordnance and training activities would be contained on

the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 1.

Public Accessibility

Under Alternative 1, no public access to B-17 would be allowed except for Navy-authorized activities such as ceremonial or cultural site visits, academic research, and regulatory or management activities. For ceremonial or cultural site visits, or academic research on B-17, current procedures would be the same as those listed for B-16. Because security fencing would restrict access to the range and the public would not interact with any training activities, there would be no increased risk to public health and safety. The withdrawn or acquired land would be designated for military use and fenced, as a result there would be no increased risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 1.

Construction

During proposed construction and improvement activities at B-17, standard safety measures such as construction fencing, signs, and security would be implemented to minimize safety risks and unauthorized access. The Navy would also construct perimeter fencing and access gates. Installation of the fencing would follow recommendations described in the BLM's Handbook 1741-1 (Fencing) which includes avoiding bulldozer clearing, or other major soil disturbing methods. Section 3.8 (Air Quality) provides a detailed analysis on emissions and fugitive dust associated with construction activities. Noise and fugitive dust associated with construction activities. Noise short periods (on a daily basis for only limited periods of time, and only for certain daylight hours during such times), and would not pose a health and safety risk to the public. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 1.

Road and Infrastructure Improvements to Support Alternative 1

State Route 839

Under Alternative 1, the WDZ proposed for training activities at B-17 would extend over approximately 24 miles of State Route 839. As a result, the Navy would potentially, for public safety purposes, reroute the portion of State Route 839 that would overlap with the proposed expansion area. The potential new road section would be outside of the requested withdrawal area in one of three notional relocation corridors. All three corridors cross public lands managed by BLM and could potentially improve vehicle access to these areas. Under any of the notional relocation corridor options, standard safety measures and regulations would be implemented to minimize safety risks and unauthorized access to construction areas. The potential roadwork, which would potentially take 1–2 years, would be phased (i.e., the old road would remain open while any new road was being built) to minimize impacts on the public (see Section 3.5, Transportation), and the expanded range would not be active until after the road were relocated. Prior to the implementation of any potential action involving relocation of State Route 839, the Navy would coordinate with the BLM and perform additional site-specific NEPA analysis.

Paiute Pipeline

Under Alternative 1, the Navy would potentially reroute approximately 12 miles of the existing Paiute Pipeline south of the proposed expansion area of B-17. The potential Paiute Pipeline relocation segment

would include the same specifications as the existing pipeline. The Navy would work with the pipeline owner in developing a proposal to reroute the affected pipeline section. However, 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 potential final routing subsequent to completion of site-specific environmental analysis.

Pipeline construction would adhere to all standard safety measures and regulations. Existing operation of the pipeline would not change after any potential relocation. All existing safety regulations would continue to be in place after relocation, and the expanded range would not be active until after the pipeline were relocated. Prior to the implementation of any potential action involving relocation of the Paiute Pipeline, the Navy would coordinate with the BLM and perform additional site-specific NEPA analysis.

3.14.3.2.12 Bravo-19

Land Withdrawal and Acquisition

Under Alternative 1, B-19 would not change (see Table 2-1) in size or function. In addition, target areas for Naval Aviation Advanced Strike Warfare and Large Force Exercise training would not change. B-19 would be managed in accordance with all applicable legal requirements and Navy policies and protocols and would not increase the risk to public health and safety and protection of children near B-19. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 1.

Training Activities

Under Alternative 1, there would be no change to training activities at B-19. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. Therefore, there would be no significant impact on public health and safety as a result of training activities under Alternative 1.

Public Accessibility

Under Alternative 1, no public access to B-19 would be allowed except for Navy-authorized activities such as ceremonial or cultural site visits, academic research, and regulatory or management activities. For ceremonial or cultural site visits, or academic research on B-19, current procedures would be the same as those listed for B-16. Because security fencing would restrict access to the range and the public would not interact with any training activities, there would be no increased risk to public health and safety. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 1.

Construction

No construction is proposed at B-19. Therefore, there would be no significant impact on public health and safety as a result of construction at B-19 under Alternative 1.

3.14.3.2.13 Bravo-20

Land Withdrawal and Acquisition

Under Alternative 1, B-20 would expand in all directions by approximately 180,329 acres (118,564 acres of federal land and 61,765 acres of non-federally owned land) (see Table 2-1) and increase in total size to approximately 221,334 acres. This expansion would include approximately 3,200 acres of land currently withdrawn by the U.S. Fish and Wildlife Service (USFWS) as a portion of the Fallon National Wildlife Refuge. The Navy is not proposing to develop targets in the refuge. Due to the safety concerns associated with being within a WDZ, the Navy and the USFWS would close the refuge lands within the WDZ to the public. The USFWS would continue to manage the land under a Memorandum of Understanding (MOU) with the Navy and BLM.

B-20 would be fenced and managed in accordance with all applicable legal requirements and Navy policies and protocols. The Navy would propose to hire two Conservation Law Enforcement Officers to monitor and repair fences; this would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 1.

Training Activities

Under Alternative 1, there would be no change to training activities at B-20. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 1.

Public Accessibility

Under Alternative 1, no public access to B-20 would be allowed except for Navy-authorized activities such as ceremonial or cultural site visits, academic research, and regulatory or management activities. For ceremonial or cultural site visits, or academic research on B-20, current procedures would be the same as those listed for B-16. Because security fencing would restrict access to the range and the public would not interact with any training activities, there would be no increased risk to public health and safety. The withdrawn land areas would be designated for military use and fenced on the B-20, therefore, Alternative 1 would not increase the risk to public health and safety as a result of public access under Alternative 1.

Construction

During proposed construction and improvement activities at B-20, standard safety measures such as construction fencing, signs, and security would be implemented to minimize safety risks and unauthorized access. The Navy would also construct perimeter fencing and access gates. Installation of the fencing would follow recommendations described in the BLM's Handbook 1741-1 (Fencing) which includes avoiding bulldozer clearing, or other major soil disturbing methods. Section 3.8 (Air Quality) provides a detailed analysis on emissions and fugitive dust associated with construction activities. Noise and fugitive dust associated with construction activities. Noise short periods (on a daily basis for only limited periods of time, and only for certain daylight hours during such times), and would not pose a public health and safety risk. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 1.

3.14.3.2.14 Dixie Valley Training Area

Land Withdrawal and Acquisition

Under Alternative 1, the DVTA would expand in all directions (see Figure 2-5), increasing its total size to approximately 370,903 acres. The proposed expansion would overlap portions of the Clan Alpine Mountain Wilderness Study Area (WSA), the Job Peak WSA, the Stillwater Range WSA, and the BLM-proposed Fox Peak Areas of Critical Environmental Concern (ACEC) (proposed under Alternative E of the Carson City District Draft Range Management Plan). Under Alternative 1, Congressional withdrawal legislation would remove the WSA designation from those portions of the Clan Alpine WSA, Job Peak WSA, and Stillwater WSA within the DVTA. Alternative 1 would also remove a portion of the ACEC designation that is proposed in the Carson City Draft Range Management Plan 2014 (Preferred Alternative E) of the Fox Peak ACEC within the DVTA. The BLM would change the boundaries of the Fox Peak ACEC to remove those areas within the DVTA. The BLM would continue managing the remaining WSA portions of Clan Alpine WSA, Job Peak WSA, and Stillwater Range WSAs. These additional withdrawn or acquired lands would be managed in accordance with all applicable regulations as the rest of the DVTA, and would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 1.

Training Activities

Under Alternative 1, there would be no change to training activities at the DVTA. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 1.

Public Accessibility

The public would continue to be able to access the DVTA for recreational activities include hunting, camping, hiking, OHV use, site visits, and grazing. Under Alternative 1, three electronic warfare sites would be constructed; however, security fencing would be installed along the perimeter of each site to restrict public access. Because security fencing would restrict access to these areas and the public would not be exposed, there would be no increased risk to public health and safety. The abandoned mines found on the DVTA would be secured in accordance with all applicable laws and regulations, therefore, Alternative 1 would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 1.

Construction

During proposed construction activities at the DVTA, standard safety measures such as construction fencing, signs, and security would be implemented for the Electronic Warfare sites to minimize safety risks and unauthorized access. Noise and fugitive dust associated with construction activities would be no significant impact on public health and safety as a result of construction under Alternative 1.temporary, contained within a small area (no more than 5 acres), and would occur only for short periods (on a daily basis for only limited periods of time, and only for certain daylight hours during such times), and would not pose a public health and safety risk. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 1.

3.14.3.2.15 Special Use Airspace

Proposed airspace changes under Alternative 1 are primarily within the existing SUA of the FRTC. Airspace changes are described in Chapter 2, Section 2.3.2.5 (Special Use Airspace Modifications). All airspace changes would follow FAA regulations as designated for each component of the implementation of Alternative 1 to ensure public health and safety. Some of the airspace above proposed land withdrawal areas would need to be kept free of any air and ground infrastructure hazards that would be a threat to aviation safety, in order to provide adequate room for the safe operation of multiple aircraft. The airspace changes would allow for more efficient use of the airspace for Large Force Exercises and allow for as much public and commercial access as reasonably practicable, while being compatible with operational requirements (see Section 3.6, Airspace, for impact analysis).

Following the NEPA process, the Navy would prepare a formal RAICUZ update. A RAICUZ does not drive compatibility, but rather provides suggestions to the Navy about development and formalizes any recommendations for new and existing safety and noise zones within RAICUZ areas. The Navy would continue to work with the local counties and municipalities as well as federal property land managers (e.g., the BLM, USFWS, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties) to provide suggestions for compatible land use development near Bravo ranges.

Compliance with FAA regulations would ensure public health and safety in and under the SUA. Therefore, there would be no significant impact on public health and safety as a result of changes to SUA under Alternative 1.

3.14.3.2.16 Summary of Effects and Conclusions

Under Alternative 1, current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, use of lasers, and abandoned mine lands would continue to be in effect and would be applied to any expanded range areas. B-16, B-17, B-19, and B-20 would be fenced and the public would be restricted from accessing the ranges except for allowable uses. The DVTA would continue to be accessible to the public. Safety issues while driving, bicycling, or hiking on roads near or within the area remaining open to the public would not result in increased risks to health and safety or to children because of Navy standard operating procedures and management practices that are in place to maintain safety while training. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize safety risks and unauthorized access. Therefore, implementation of Alternative 1 would not result in significant impacts on public health and safety. Because children are included in the overall population evaluated for public health and safety risks, and no significant impacts on public health and safety risks to children are included in the overall population evaluated for public health and safety risks, and no significant impacts on public health and safety risks to children would occur under Alternative 1.

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

Impacts associated with public health and safety issues that apply to all the ranges, training activities, public accessibility, and construction under Alternative 2 would be the same as discussed under Alternative 1. However, under Alternative 2, certain public uses within specified areas of B-16, B-17, B-19, and B-20 would be allowed when the ranges are not operational (i.e., typically weekends, holidays, and when closed for scheduled maintenance) (refer to Table 2-5). Areas open for certain public uses would be specified, and targets and other training activities would not occur or would be compatible with uses of these specific areas following standard operating procedures and management practices to

maintain public health and safety. The concept of allowing such uses was developed in coordination with the BLM as the Draft Environmental Impact Statement was prepared based in part on input from the public and various public agencies during the scoping process.

3.14.3.3.1 Bravo-16

Land Withdrawal and Acquisition

Alternative 2 would involve the same withdrawals and acquisitions as requested and proposed in Alternative 1. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 2.

Training Activities

Under Alternative 2, there would be no change to training activities at B-16. For any unexploded ordnance generated as part of aircraft-delivered ordnance operations or ground-based operations, range clearance procedures would be followed as identified in Section 3.14.2.1.9 (Hazardous Waste). Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 2.

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). Races within B-16 would be permitted and managed by the BLM, the State of Nevada, or the Navy in accordance with a MOU. Race scheduling and training deconfliction would be performed between the BLM, the State of Nevada, and the Navy. The BLM would manage those portions of races occurring on BLM-managed lands, and the Navy would manage those portions of races occurring on B-16. These programs would require safety training and a signed MOU. A range sweep would be conducted prior to the race or event using government provided ground transportation. After all race participants have exited the restricted area on Navy property, the Navy would conduct a final sweep with the designated race or event officials. The implementation of the actions and restrictions required based on the MOU would reduce the safety risk to the public by defining standard operating procedures, management practices, and impact minimization measures. There would be no increased risk to public health and safety with the implementation of Alternative 2 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures would be in place for allowable use access. The withdrawn land areas would be designated for military use and fenced on the B-16, reducing risks to public health and safety. Therefore, there would be no significant impact on public health and safety in B-16 under Alternative 2.

Construction

Construction activities proposed under Alternative 2 would be the same as those proposed under Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of construction under Alternative 2.

3.14.3.3.2 Bravo-17

Land Withdrawal and Acquisition

Alternative 2 would involve the same withdrawals and acquisitions as requested and proposed in Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 2.

Training Activities

Under Alternative 2, there would be no change to training activities at B-17. For any unexploded ordnance generated as part of aircraft-delivered ordnance operations or ground-based operations, range clearance procedures would be followed as identified in Section 3.14.2.1.9 (Hazardous Waste). Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 2.

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. Race protocols within B-17 would be the same as those described above under B-16. The Navy would accommodate hunting in the B-17 range to the maximum extent practicable. The bighorn sheep hunting program on B-17 would need to remain compatible with mission training activities and operate on a not-to-interfere basis with operational training requirements. Hunting activities would be implemented in accordance with applicable NDOW rules and regulations along with the Navy's standard operating procedures and protective measures to keep public health and safety risks low. NDOW would manage the hunting program and coordinate with the Navy for policies and guidelines on controlled range access.

A Controlled Access Program would manage range access with the following procedures: hunters must complete ground safety training; heed hunting avoidance areas that would be designated on a map (such as abandoned mine lands, target areas, etc.); hunters must sign a waiver agreement releasing the Navy of any liability for death or personal injury suffered by any program participant(s) or other individual(s) accompanying such participant(s), or for any loss of or damage to the property of any such participants or individuals accompanying such participants; hunters and other participants must be 18 years or older; bombing range scheduling and access procedures would be implemented in accordance with Navy range policies; and prior scheduling would be required. Daily Check-in and Check-out with Range Control would be mandatory for any access to the B-17 range, with the exception of over-night hunting groups that would stay in designated areas that are suitable for hunters to camp on the range while hunting. Tag holders would remain in designated hunting areas that would be open to the hunters as described in Section 3.12 (Recreation). These proposed policies would not entirely eliminate the risk of hunting on a bombing range, but would minimize such risk to the greatest extent practical and would be considered acceptable by the Navy.

There would be a minimal increased risk to public health and safety with the implementation of Alternative 2 due to the inherent risk of hunting on the bombing range that cannot be fully mitigated to no risk. However, risks to non-hunters would not increase under Alternative 2 because security fencing would restrict access to the range, the public would not interact with any training activities, the public

with access would complete ground safety training, and procedures are in place for allowable use access. Therefore, there would be no significant impact on public health and safety in B-17 under Alternative 2.

Construction

Construction activities proposed under Alternative 2 would be the same as those proposed under Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of construction under Alternative 2.

Road and Infrastructure Improvements to Support Alternative 2

The additional infrastructure improvements that would potentially be implemented after Alternative 2 would be the same as those described under Alternative 1. Prior to implementation of any potential action involving relocation of State Route 839 or relocation of the Paiute Pipeline, the Navy would coordinate with the BLM and perform additional site-specific NEPA analysis.

3.14.3.3.3 Bravo-19

Land Withdrawal and Acquisition

The area of B-19 would not change under Alternative 2. The target areas for Naval Aviation Advanced Strike Warfare and Large Force Exercise training would not change. B-19 would be managed in accordance with all applicable legal requirements and Navy policies and protocols and would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 2.

Training Activities

Under Alternative 2, there would be no change to training activities at B-19. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. Therefore, there would be no significant impact on public health and safety as a result of training activities under Alternative 2.

Public Accessibility

Under Alternative 2, B-19 would be closed to public access as described under Alternative 1, with the exception of special events (racing events). Race protocols within B-19 would be the same as those described for B-16. There would be no increased risk to public health and safety with the implementation of Alternative 2 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures would be in place for allowable use access. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 2.

Construction

No construction is proposed at B-19. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 2.

3.14.3.3.4 Bravo-20

Land Withdrawal and Acquisition

Alternative 2 would involve the same withdrawals and acquisitions as requested and proposed in Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 2.

Training Activities

Under Alternative 2, there would be no change to training activities at B-20. For any unexploded ordnance generated as part of aircraft-delivered ordnance operations or ground-based operations, range clearance procedures would be followed as identified in Section 3.14.2.1.9 (Hazardous Waste). Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 2.

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). Race protocols within B-20 would be the same as those described for B-16. There would be no increased risk to public health and safety with the implementation of Alternative 2 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures would be in place for allowable use access. Therefore, there would be no significant impact on public health and safety in B-20 under Alternative 2.

Construction

Construction activities proposed under Alternative 2 would be the same as those proposed under Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of construction under Alternative 2.

3.14.3.3.5 Dixie Valley Training Area

Land Withdrawal and Acquisition

Alternative 2 would have the same withdrawals and acquisitions as requested proposed in Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 2.

Training Activities

Under Alternative 2, there would be no change to training activities at the DVTA. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 2.

Public Accessibility

Under Alternative 2, the DVTA range would be open and have no public access restrictions (except for the fenced areas) for grazing, hunting, OHVs, camping, hiking, site visits (ceremonial and cultural),

management access and events such as races, and would allow access for mineral resource development (geothermal development [managed under the Geothermal Steam Act of 1970 where compatible], subject to conditions in leases imposing conditions on such development) and salable mining activities. Impacts under Alternative 2 would be the same as Alternative 1 for the DVTA range, with the exception of allowing limited mineral resource development as referenced herein above.

All land uses in the DVTA would continue to be managed by the BLM. The management of domestic livestock grazing activities within the proposed DVTA would continue to be permitted by the BLM. Hunting seasons within the DVTA would continue as identified by the NDOW annual Hunting Guide. Compliance with the policies in the Hunting Guide would reduce public health and safety risks. OHV use currently occurs and would continue to be allowed under Alternative 2 on Navy withdrawn or acquired lands within the DVTA, as long as users follow the BLM OHV protocols, such as remaining on current roads and trails and using vehicles equipped with spark arrestors during fire season. Recreational activities, such as camping and hiking, currently occur and would continue to be allowed on the DVTA with no additional access restrictions.

The proposed geothermal development and salable mining activities would be permitted through the BLM and would not impact public health and safety in the DVTA range because they would be subject to all applicable public health and safety requirements and all conditions required for operation by the BLM and the Navy. Under Alternative 2, utility corridors, utilities, and Rights of Way would be allowed in the DVTA. Because these activities are currently allowed on the DVTA, they would not impact public health and safety in the DVTA range, relative to current baseline conditions. The BLM and Navy Range Office would coordinate notification protocols for large race activities (which would not be restricted) in the DVTA. The BLM would manage any such races as appropriate to avoid or minimize any impacts of the races to public health and safety on the DVTA. Any abandoned mines found would be secured in accordance with all applicable laws and regulations on the DVTA. Therefore, there would be no increased risk to public health and safety as a result of public access changes under Alternative 2.

Construction

Construction activities proposed under Alternative 2 in the DVTA would be the same as those proposed under Alternative 1. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety as a result of construction under Alternative 2.

3.14.3.3.6 Special Use Airspace

Impacts associated with Alternative 2 would be the same as defined under Alternative 1 for SUA. Following the NEPA process, the Navy would prepare a formal RAICUZ update. A RAICUZ does not drive compatibility, but rather provides suggestions to the Navy about development and formalizes any recommendations for new and existing safety and noise zones within RAICUZ areas. The Navy would continue to work with the local counties and municipalities as well as federal property land managers (e.g., the BLM, USFWS, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties) to provide suggestions for compatible land use development near Bravo ranges. Therefore, as discussed under Alternative 1, there would be no significant impact on public health and safety in or under SUA under Alternative 2.

3.14.3.3.7 Summary of Effects and Conclusions

Under Alternative 2, current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, and use of lasers would continue to be in effect and would be applied to any expanded range areas. B-16, B-17, B-19, and B-20 would be fenced and the public would be restricted from accessing the ranges except for allowable uses. The current plans and procedures for the DVTA would continue to be in place for abandoned mine lands and the training area would remain accessible to the public. Safety issues while driving, bicycling, or hiking on roads near or within the area remaining open to the public would not result in increased risks to health and safety or to children because of Navy standard operating procedures and management practices that are in place to maintain safety while training. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize safety risks and unauthorized access. Therefore, implementation of Alternative 2 would not result in significant impacts on public health and safety. Because children are included in the overall population evaluated for public health and safety risks, and no significant impacts on public health and safety risks, and no significant impacts on public health and safety risks, and no significant impacts on public health or safety risks to children would occur under Alternative 2.

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

Impacts associated with public health and safety issues that apply to all the ranges, training activities, public accessibility, and construction under Alternative 3 would be the same as discussed under Alternatives 1 and 2 with the exception of the shift of B-17, and change in withdrawal areas for B-16 and B-20. Under Alternative 3, B-17 would be shifted farther to the southeast, and it would be rotated slightly counter-clockwise. Unlike Alternative 1, the Navy would not withdraw land south of U.S. Route 50 as the DVTA. Rather, the Navy proposes that Congress categorizes this area as a Special Land Management Overlay. This Special Land Management Overlay will 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, will not be withdrawn by the Navy, and would not directly be used for land-based military training or managed by the Navy. Otherwise, these two areas would remain open to public access and would be available for all appropriative uses, including mining for locatable and leasable mineral resources. However, prior to issuing any decisions on projects, permits, leases, studies, and other land uses within the two special use zones, BLM would be required to consult with NAS Fallon. This consultation would inform the Navy of proposed projects, permits, leases, studies, and other land uses and afford the Navy an opportunity to collaborate with BLM to preserve the training environment. Further, prior to issuing approval for installation or use of mobile or stationary equipment used to transmit and receive electromagnetic signals in the two special use zones as part of any federal action, BLM would be required to obtain permission for NAS Fallon for use of this equipment. This requirement to obtain Navy permission for the use of this equipment would afford the Navy an opportunity to ensure military and civilian use of the electromagnetic spectrum does not interfere with their respective activities. BLM and the Navy will also enter into a MOU to manage the details of the consultation and approval process.

Areas open for certain public uses on the Bravo ranges would be specified, and targets and other training activities would not occur or would be compatible with uses of these specific areas following standard operating procedures and management practices to maintain public health and safety.

3.14.3.4.1 Bravo-16

Land Withdrawal and Acquisition

Under Alternative 3, the B-16 range would expand to the west by approximately 31,836 acres (see Figure 2-2), increasing the total area to approximately 59,195 acres. Unlike Alternatives 1 and 2, the lands south of Simpson Road would not be withdrawn; and the currently withdrawn lands would be relinquished by the Navy back to the BLM. Although these lands south of Simpson Road represent lands that are being relinquished by the Navy to the BLM for public use, they are already open to the public and therefore would not represent a significant change from current conditions. Therefore, as discussed under Alternatives 1 and 2, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 3.

Training Activities

Under Alternative 3, there would be no change to training activities at B-16. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 3.

Public Accessibility

Under Alternative 3, the same public access would be allowed on B-16 as described under Alternative 2. There would be no increased risk to public health and safety with the implementation of Alternative 3 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures are in place for allowable use access. Therefore, as discussed under Alternative 2, there would be no significant impact on public health and safety in B-16 under Alternative 3.

Construction

Construction activities proposed under Alternative 3 would be the same as those proposed under Alternatives 1 and 2. Therefore as discussed under Alternatives 1 and 2, there would be no significant impact on public health and safety as a result of construction under Alternative 3.

3.14.3.4.2 Bravo-17

Land Withdrawal and Acquisition

Under Alternative 3, B-17 would expand to the southeast to a new total size of approximately 267,448 acres and be "tilted" (see Figure 2-12). This tilt of the proposed withdrawal would avoid any overlap of State Route 839 (under Alternatives 1 and 2). Under Alternative 3, in addition to new targets and target areas, the Navy would continue to use existing targets and target areas. These new lands would be fenced and managed in accordance with all applicable legal requirements and Navy policies and protocols. The Navy would propose to hire two Conservation Law Enforcement Officers to monitor and repair fences; this would not increase the risk to public health and safety and protection of children in B-17. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 3.

Training Activities

Under Alternative 3, there would be no change to training activities at B-17. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 3.

Public Accessibility

With the shift of B-17 under Alternative 3, the hunting avoidance areas (such as target areas) would shift as discussed in Section 3.12 (Recreation). Alternative 3 would have the same public access allowances and the same impacts on public health and safety in B-17 as described under Alternative 2. There would be a minimal increased risk to public health and safety (in terms of low-level residual risk to hunting parties) with the implementation of Alternative 3, as discussed under Alternative 2. Therefore, there would be no significant impact on public health and safety in B-17 under Alternative 3.

Construction

Construction activities proposed under Alternative 3 would be the same as those proposed under Alternatives 1 and 2. Therefore as discussed under Alternatives 1 and 2, there would be no significant impact on public health and safety as a result of construction under Alternative 3.

Road and Infrastructure Improvements to Support Alternative 3

State Route 361 Notional Relocation Corridor

With the shift and tilt of B-17, approximately 12 miles of State Route 361 that currently traverses BLM lands would no longer be available for public use. The Navy would potentially construct a new road segment outside of the proposed withdrawal area and complete construction before closure of the existing State Route 361. The potential replacement road would be developed to have the same or improved safety specifications as the existing State Route 361. Standard safety measures and procedures would be implemented to minimize safety risks and unauthorized access to construction areas. The potential roadwork, which would be anticipated to take 1–2 years, would be phased (i.e., the old road would remain open while any new road was being built), and the expanded range would not be used until the new road were completed to minimize impacts on the public. Prior to the implementation of any potential action involving relocation of State Route 361, the Navy would coordinate with the BLM to perform additional site-specific NEPA analysis.

Paiute Pipeline

Additional lands requested to be withdrawn or proposed for acquisition to expand B-17 would overlap with a section of the Paiute Pipeline, resulting in the potential need to re-locate approximately 18 miles of the pipeline. Pipeline construction would adhere to all standard safety measures and regulations. Existing operation of the pipeline would not change after the relocation and the expanded range would not be used until the pipeline was relocated. All existing safety regulations would continue to be in place after relocation. Prior to the implementation of any potential action involving relocation of the Paiute Pipeline, the Navy would coordinate with the BLM to perform additional site-specific NEPA analysis.

3.14.3.4.3 Bravo-19

Land Withdrawal and Acquisition

The area of B-19 would not change under Alternative 3 (see Table 2-6). The target areas for Naval Aviation Advanced Strike Warfare and Large Force Exercise training would not change. B-19 would be managed in accordance with all applicable legal requirements and Navy policies and protocols and would not increase the risk to public health and safety and protection of children. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 3.

Training Activities

Under Alternative 3, there would be no change to training activities at B-19. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. Therefore, there would be no significant impact on public health and safety as a result of training activities under Alternative 3.

Public Accessibility

Under Alternative 3, B-19 would be closed to public access as described under Alternative 2, with the exception of special events (racing events). Race protocols within B-19 would be the same as those described for B-16. There would be no increased risk to public health and safety with the implementation of Alternative 3 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures would be in place for allowable use access. Therefore, there would be no significant impact on public health and safety as a result of public access under Alternative 3.

Construction

No construction is proposed at B-19. Therefore, there would be no significant impact on public health and safety as a result of construction under Alternative 3.

3.14.3.4.4 Bravo-20

Land Withdrawal and Acquisition

The proposed withdrawal area under Alternative 3 would be the same as under Alternative 1 with the exception of the lands east of East County Road and the road itself. The Navy planned to leave the areas east of East County Road, and the road itself open under Alternatives 1 and 2; therefore, the impacts to public health and safety under Alternative 3 are the same as discussed under Alternatives 1 and 2. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 3.

Training Activities

Under Alternative 3, there would be no change to training activities at B-20. Range procedures would be followed for unexploded ordnance and training activities would be contained on the range. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 3.

Public Accessibility

Under Alternative 3, the same public access would be allowed on B-20 as described under Alternative 2 for the B-20 range. There would be no increased risk to public health and safety with the implementation of Alternative 3 because security fencing would restrict access to the range, the public would not interact with any training activities, and procedures are in place for allowable use access. Therefore, there would be no significant impact on public health and safety in B-20 under Alternative 3.

Construction

Construction activities proposed under Alternative 3 would be the same as those proposed under Alternatives 1 and 2. Therefore as discussed under Alternatives 1 and 2, there would be no significant impact on public health and safety as a result of construction under Alternative 3.

3.14.3.4.5 Dixie Valley Training Area

Land Withdrawal and Acquisition

Under Alternative 3, the land requested for withdrawal would decrease compared to Alternatives 1 and 2 by 79,467 acres with the creation of the Special Land Management Overlay. With the shift of B-17, the BLM would create a Special Land Management Overlay along the western side of State Route 839 south of U.S. Route 50 and around Earthquake Fault Road. The requested withdrawal and proposed acquisition for the DVTA would total approximately 256,440 acres (see Figure 2-12) and would increase the total training area size to 325,277 acres. These new lands would be managed in the same way as the DVTA, would be open for public use, would be managed in accordance with all applicable regulations, and would not increase the risk to public health and safety and protection of children in the DVTA. Therefore, there would be no significant impact on public health and safety as a result of the withdrawal and acquisition under Alternative 3.

Training Activities

Under Alternative 3, there would be no change to training activities at the DVTA. While these activities would be conducted over a larger area, the similarity of the terrain in the proposed expansion area and the consistent application of the same safety practices ensure there would be no significant impact on public health and safety as a result of training activities under Alternative 3.

Public Accessibility

Under Alternative 3, the land requested for withdrawal for the DVTA would decrease compared to Alternatives 1 and 2 by 79,467 acres with the creation of the Special Land Management Overlay. Under Alternative 3, the BLM Special Land Management Overlay would be open to the public and allow for public uses through the BLM. The Special Land Management Overlay would be created via the withdrawal legislation and would require that BLM obtain approval from the Navy for installation of any fixed or mobile equipment used for transmitting and receiving radio signals, and consult with the Navy for any uses in this area requiring a permit from BLM. Impacts to public health and safety in the DVTA would be the same under Alternative 3 as described under Alternative 2 for public access. All public health and safety policies would continue to cover lands requested for withdrawal. The abandoned mines found would be secured in accordance with all applicable laws and regulations. Because public access activities are currently allowed on the DVTA, they would not increase the risk to public health and safety as a result of public access under Alternative 3.

Construction

Construction activities in the DVTA, proposed under Alternative 3, would be the same as those proposed under Alternatives 1 and 2. Therefore as discussed under Alternatives 1 and 2, there would be no significant impact on public health and safety as a result of construction under Alternative 3.

3.14.3.4.6 Special Use Airspace

Under Alternative 3, airspace changes would have the same impacts on public health and safety as discussed under Alternatives 1 and 2. Restricted Airspace would need to be established to overlay the shifted and tilted withdrawal of B-17 lands. No new safety procedures would need to be established for aircraft activities due to the shift in airspace and FAA protocols would continue to be in effect. Because airspace changes would be implemented with the same safety protocols that are currently in place, there would be no increased risk to public health and safety. Following the NEPA process, the Navy would prepare a formal RAICUZ update. A RAICUZ does not drive compatibility, but rather provides suggestions to the Navy about development and formalizes any recommendations for new and existing safety and noise zones within RAICUZ areas. The Navy would continue to work with the local counties and municipalities as well as federal property land managers (e.g., the BLM, USFWS, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties) to provide suggestions for compatible land use development near Bravo ranges. Therefore, there would be no significant impact on public health and safety under Alternative 3.

3.14.3.4.7 Summary of Effects and Conclusions

Under Alternative 3, current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, use of lasers, and abandoned mine lands would continue to be implemented and include expanded range areas. B-16, B-17, B-19, and B-20 would be fenced and the public would be restricted from accessing the ranges except for allowable uses. The DVTA would remain accessible to the public. Safety issues while driving, bicycling, or hiking on roads near or within the area remaining open to the public would not result in increased risks to health and safety or to children because of Navy standard operating procedures and management practices that are in place to maintain safety while training. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize safety risks and unauthorized access. Therefore, implementation of Alternative 3 would not result in significant impacts on public health and safety. Because children are included in the overall population evaluated for public health and safety risks, and no impacts on public health and safety risks to children would occur under Alternative 3.

3.14.3.5 Proposed Management Practices, Monitoring, and Mitigation

3.14.3.5.1 Proposed Management Practices

Current measures are in place to ensure that nonparticipants are not endangered by actions at the FRTC, and they would remain in effect with the implementation of any of the Alternatives. The FRTC is actively developing a Fire Management Plan to reduce the risk of wildlife in the region of influence. Standard Operating Procedures and range clearance procedures would remain in place to ensure that training areas are clear of nonparticipants before an activity commences. The following management practices would continue to be implemented to reduce hazards associated with unexploded ordnance:

• Post signs warning of areas where unexploded ordnance clearance has not been confirmed.

- For public access, there would be procedures in place (e.g., escorts, range clearance, EOD sweeps) to protect the public if authorized to enter the ranges.
- Maintain the RSEPA discussed under Section 3.14.2.1.10 (Range Sustainability Environmental Program Assessment).
- Continue Operational Range Clearance activities which remove unexploded ordnance and other materials to reduce munitions constituent loading.

With the implementation of existing management practices on proposed withdrawn or acquired lands, no additional management practices would be warranted for public health and safety and protection of children based on the analysis presented in Section 3.14.3 (Environmental Consequences).

3.14.3.5.2 Proposed Monitoring

No monitoring measures are warranted for public health and safety and protection of children based on the analysis presented in Section 3.14.3 (Environmental Consequences).

3.14.3.5.3 Proposed Mitigation

No mitigation measures are warranted for public health and safety based on the analysis presented in Section 3.14.3 (Environmental Consequences).

3.14.3.6 Summary of Effects and Conclusions

Table 3.14-8 summarizes the effects of the alternatives on public health and safety and protection of children.

Table 3.14-8: Summary of Effects and Conclusions on Public Health and Safety and Protection of Children

Summary of Effects and National Environmental Policy Act Determinations No Action Alternative		
Impact Conclusion	The No Action Alternative would not significantly impact public health and safety, and there would be no disproportionate environmental health or safety risks to children.	

Table 3.14-8: Summary of Effects and Conclusions on Public Health and Safety and Protection of Children (continued)

	Summary of Effects and National Environmental Policy Act Determinations
Alternative 1	
Summary	 Current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, use of lasers, abandoned mine lands, hazardous waste management, and the protection of children would continue to be implemented on expanded range areas. The public would not be able to access B-16, B-17, B-19, or B-20 ranges except for and in accordance with specified allowable uses. The public would continue to access the DVTA. Safety procedures would be in place to minimize the risk to the public. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize public health and safety risks from unauthorized access.
Impact Conclusion	Alternative 1 would not significantly impact public health and safety, and there would be no disproportionate environmental health or safety risks to children.
Alternative 2	
Summary	 Current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, use of lasers, abandoned mine lands, hazardous waste management, and the protection of the children would continue and include expanded range areas. There would be limited access to specified areas of B-16, B-17, B-19, and B-20 when the ranges are not active. Safety procedures would be in place to minimize the risk to the public. The public would continue to access the DVTA. Safety procedures would be in place to minimize the risk to the public. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize safety risks and unauthorized access.
Impact Conclusion	Alternative 2 would not significantly impact public health and safety, and there would be no disproportionate environmental health or safety risks to children.

Table 3.14-8: Summary of Effects and Conclusions on Public Health and Safety and Protection of Children (continued)

	Summary of Effects and National Environmental Policy Act Determinations
Alternative 3	
Summary	 Current plans and procedures for emergency services, wildfire management, aircraft and ground operations, range clearance procedures, electromagnetic energy, use of lasers, abandoned mine lands, hazardous waste management, and the protection of the children would continue to be implemented on expanded range areas. There would be limited access to specified areas of B-16, B-17, B-19, and B-20 when the ranges are not active. Safety procedures would be in place to minimize the risk to the public. The public would continue to access the DVTA. Safety procedures would be in place to minimize the risk to the public. Construction and improvement activities would follow standard safety measures to include construction fencing, signs, and security to minimize safety risks and unauthorized access.
Impact Conclusion	Alternative 3 would not significantly impact public health and safety, and there would be no disproportionate environmental health or safety risks to children.

Notes: B- = Bravo, DVTA = Dixie Valley Training Area, FAA = Federal Aviation Administration, FRTC = Fallon Range Training Complex, MOA = Military Operations Area, NAS = Naval Air Station

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